

# TEST BANK FOR Pharmacology for Nurses A Pathophysiologic Approach, 7th Edition by Michael P. Adams Norman Holland Shanti Chang

## Chapter 1 Introduction to Pharmacology

The nurse is reviewing key events in the history of pharmacology with a student nurse. Which student comment indicates an understanding?

"Early researchers used themselves as test subjects."

"A primary goal of pharmacology is to prevent disease."

"Penicillin is one of the initial drugs isolated from a natural source."

"Pharmacologists began synthesizing drugs in the laboratory in the nineteenth century."

Answer: 1

Explanation:

Some early researchers, like Friedrich Serturner, used themselves as test subjects.

An early goal of pharmacology was to relieve human suffering.

Initial drugs isolated from complex mixtures included morphine, colchicine, curare, and cocaine, but not penicillin.

By the twentieth century, pharmacologists could synthesize drugs in the laboratory.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-1 Identify key events in the history of pharmacology.

MNL Learning Outcome: Examine the relationship between medicine and pharmacology.

The nursing student asks why anatomy and physiology as well as microbiology are required courses when learning about pharmacology. Which response will the instructor make?

"Because pharmacology is an outgrowth of those subjects."

"You must learn all, since all of those subjects are part of the curriculum."

"Knowledge of all those subjects will prepare you to administer medication."

"An understanding of those subjects is essential to understand pharmacology."

Answer: 4

Explanation:

Pharmacology is an outgrowth of anatomy, physiology, and microbiology, but this is not the most essential reason for the nurse to learn them.

The nurse must learn anatomy, physiology, and microbiology to understand pharmacology, not because they are part of the curriculum.

Knowledge of anatomy, physiology, and microbiology prepares the nurse to understand

pharmacology, not to provide care such as administration of medications.

It is essential for the nurse to have a broad knowledge base of many sciences in order to learn pharmacology.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-2 Explain the interdisciplinary nature of pharmacology, giving an example of how knowledge from different sciences impacts the nurse's role in drug administration.

MNL Learning Outcome: Identify how drugs are named and classified.

The nurse is teaching about the differences between pharmacology and therapeutics. Which statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Pharmacology is the development of medicines."

"Pharmacology is the study of medicines."

"Therapeutics relates to drug use to treat suffering."

"Therapeutics is the study of drug interactions."

"Pharmacology is the study of drugs to prevent disease and alleviate suffering."

Answer: 2, 3, 5

Explanation:

Pharmacology is not the development of medicines.

Pharmacology is the study of medicines.

Therapeutics is the use of drugs in the treatment of suffering.

Therapeutics is not related to the study of drug interactions.

Pharmacology is the study of drugs for the purpose of disease prevention and to alleviate suffering.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-3 Compare and contrast therapeutics and pharmacology.

MNL Learning Outcome: Identify how drugs are named and classified.

The nurse is preparing to administer a vaccine to a client. Which information about the manufacture of vaccines should the nurse recall when administering this medication?

The vaccine is produced by natural plant extracts in the laboratory.

The vaccine is naturally produced in animal cells or microorganisms.

The vaccine is produced by a combination of animal and plant products.

The vaccine is most commonly synthesized in a laboratory.

Answer: 2

Explanation:

Vaccines are not produced by natural plant extracts.

Vaccines are naturally produced in animal cells, microorganisms, or by the body itself.

Vaccines are not produced by a combination of animal and plant products.

Vaccines are not synthesized in a laboratory.

Page Ref: 4

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-4 Compare and contrast traditional drugs, biologics including biosimilars, and complementary and alternative medicine therapies.

MNL Learning Outcome: Identify how drugs are named and classified.

An older client with gastrointestinal bleeding asks why the condition developed when only ibuprofen was used to self-treat arthritis. Which response should the nurse make?

"There are nonpharmacologic methods to relieve joint pain."

"Maybe you should take acetaminophen because it is safer."

"Ask your healthcare provider before taking over-the-counter medications."

"I'm going to review the side effects of ibuprofen with you."

Answer: 4

Explanation:

Reviewing nonpharmacologic methods to relieve joint pain is appropriate for this client, but it's not the highest priority. It doesn't address the client's current concern about how ibuprofen may have increased the risk of having a GI bleed.

Substitution of other drugs may be beneficial; however, it is beyond the nurse's scope of practice to suggest or prescribe medications.

It is not a realistic plan to expect clients to contact the healthcare provider prior to taking any over-the-counter medication. In addition, it doesn't address the client's current concern about how ibuprofen may have increased the risk of having a GI bleed.

It is essential for the nurse to teach clients about the advantages, and the disadvantages (including side effects), of all medications and supplements the client is taking.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Context and Environment: Health promotion/disease prevention. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-9 Outline the major differences between prescription and over-the-counter drugs.

MNL Learning Outcome: Identify how drugs are named and classified.

The nurse discusses with a new graduate the pharmacological classification of drugs. Which response indicates that teaching provided to the new graduate was effective?

"An anti-anginal treats angina."

"A calcium channel blocker blocks heart calcium channels."

"An antihypertensive lowers blood pressure."

"An anticoagulant influences blood clotting."

Answer: 2

Explanation:

Saying that a drug treats angina addresses the therapeutic usefulness of the drug, not the pharmacological classification.

The pharmacological classification addresses a drug's mechanism of action, or how a drug produces its effect in the body.

Stating that a drug lowers blood pressure addresses the therapeutic usefulness of the drug, not the pharmacological classification.

Explaining that a drug influences blood clotting addresses the therapeutic usefulness of the drug, not the pharmacological classification.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-5 Explain the basis for placing drugs into therapeutic and pharmacologic classes.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A nurse is providing medication education to a client with hypertension. The nurse teaches the client that the healthcare provider ordered a diuretic to decrease the amount of fluid in the client's body. Which statement best describes the nurse's instruction?

The nurse provided appropriate medication education.

The nurse explained the drug's mechanism of action.

The nurse taught the client about a prototype drug.

The nurse explained the consequences of not using the drug.

Answer: 2

Explanation:

The education was most likely appropriate, but this response is too vague.

A drug's mechanism of action explains how a drug produces its effect in the body.

There is no drug name present, so it is not known whether this is a prototype drug.

The nurse did not explain the consequences of not using the drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: I.7 Integrate the knowledge and methods of a variety of disciplines to inform decision making. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-7 Describe what is meant by a drug's mechanism of action.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A student nurse is concerned about remembering all of the different types of drugs. Which response should be made to this student?

"Mnemonics will help you tell the difference between drugs."

"A flow chart will help enhance your memory."

"Categorize the individual drugs by therapeutic effect."

"Focus on a representative drug from each class."

Answer: 4

Explanation:

Using mnemonics is not the best way to learn about drugs.

Flow charts are not the best way to learn about drugs.

Categorizing individual drugs is not the best way to learn about drugs.

A prototype, or representative, drug is the well-understood drug model from which other drugs in a pharmacological class are compared.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-6 Discuss the prototype approach to drug classification.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client taking paroxetine (Paxil) for a year reports that it is no longer effective. Which response should the nurse make?

"This sounds like your medication needs changing."

"Let's look for interactions with other medications you are taking."

"Are you taking name brand Paxil or the generic version paroxetine?"

"It is time for us to do the Beck Depression Inventory again."

Answer: 3

Explanation:

Considering a change in medication is appropriate, but another assessment takes priority.

Assessing for interactions with other drugs is appropriate, but another assessment takes priority.

The bioavailability of a generic drug may not be the same as the bioavailability of a brand name drug.

Assessing for worsening of depression is appropriate, but another assessment takes priority.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 1.3 Demonstrate clinical judgment founded on a broad knowledge base. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 1-10 Explain the differences between trade-name drugs and their generic equivalents.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A student nurse completing an initial pharmacology course tells the nurse that it was difficult. Which response should the nurse make?

"It may be over, but now you must apply what you have learned to patient care."

"Learning is gradual and continuous; we never completely master all areas of pharmacology."

"Learning is always painful, but we must continue anyway."

"It really isn't over; you should take a graduate course next."

Answer: 2

Explanation:

It is true that the student must apply what has been learned to patient care, but this response implies that learning is over.

Learning pharmacology is a gradual, continuous process that does not end with graduation.

Learning is not always painful.

There is no reason for the student nurse to take a graduate-level pharmacology course at this time.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-7 Describe what is meant by a drug's mechanism of action.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client is concerned because of having different side effects than a partner who takes the same medication. Which response should the nurse make?

"Differences such as your gender can result in different side effects."

"I'll have to check. What is the name of the drug you were using?"

"Possibly. This could happen if one uses generic or brand name drugs."

"I'm not sure. Maybe the drug is not the same; you should check it."

Answer: 1

Explanation:

Drugs may elicit different responses depending on individual client factors such as age, gender, body mass, health status, and genetics.

The nurse should not have to check the drug; basic knowledge should include knowing that the gender of clients can result in different side effects.

There are differences between some generic and brand name drugs, but this is not the best answer.

Asking the client to check a medication is fine, but this does not answer the client's question.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Relationship-Centered Care, Knowledge, Effective Communication. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-10 Explain the differences between trade-name drugs and their generic equivalents.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client that had a myocardial infarction reports taking an over-the-counter (OTC) antacid for indigestion for years. Which response should the nurse make?

"It sounds like you were self-treating and you probably will be fine."

"Why did you do that? You should have seen a physician."

"Well, your discomfort was not indigestion."

"Your wife was self-diagnosing, which is generally not a good idea."

Answer: 4

Explanation:

Saying that the client will be fine is giving false hope without knowing the status of the client's condition.

Asking why the client was taking an over-the-counter antacid is nontherapeutic and too accusatory; "why" questions should be avoided.

Saying that the client's discomfort was not indigestion is judgmental and will alienate the client. Clients take over-the-counter (OTC) drugs for many reasons. Self-treatment is frequently ineffective, and the potential for harm may increase if the disease is allowed to progress.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.C.1 Value seeing healthcare situations "through patients' eyes." | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Relationship-Centered Care, Knowledge, Effective Communication. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-9 Outline the major differences between prescription and over-the-counter drugs.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse instructs a client about the use of over-the-counter (OTC) medications. Which client response indicates to the nurse that the teaching was effective?

"I will check with my provider first before I take any over-the-counter medicine."

"A pharmacist can tell me how to take the over-the-counter medicine."

"After reading all the directions on the label, I will call the healthcare provider's office if they are not clear."

"Medicines that are available over the counter are really safe, or they would be prescription medicines."

Answer: 3

Explanation:

It is not realistic to expect clients to call the doctor's office before taking any OTC medicine.

Asking the pharmacist is a good idea but does not replace reading the label directions. Also, the pharmacist might not always be in the store when the medicine is purchased.

In most cases, clients may treat themselves safely if they carefully follow the instructions included with the medication.

Most OTC medicines have a high margin of safety, but none is considered completely safe.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.4 Examine how the safety, quality, and cost effectiveness of healthcare can be improved through the active involvement of patients and families. | AACN

Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies:

Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 1-9 Outline the major differences between prescription and over-the-counter drugs.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client asks why a prescribed medication is very expensive. Which action should the nurse take?

Help the client receive free medicine through a "patient assistance" program.

Ask the healthcare provider if a cheaper brand name drug may be substituted.

Contact the healthcare provider to ask if a generic drug may be substituted.

Maintain the client on samples of the brand name drug from the physician's office.

Answer: 3

Explanation:

A patient assistance program is a good idea; however, the client may not qualify for it and so this would not be the best action.

Another brand name drug may not be what the client needs for the illness.

Generic drugs are much less costly than brand name drugs.

Providing samples is an option, but the office may temporarily run out of samples and the client will not receive the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-10 Explain the differences between trade-name drugs and their generic equivalents.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client asks why a newly prescribed medication is so expensive. Which response should the nurse make?

"It is expensive, but your insurance covers it and you have a low co-pay."

"Drug companies are allowed to advertise medications and this adds to the cost."

"Drug companies must recoup the cost of developing and producing the drug."

"I think the drug companies should be more accountable for lowering costs."

Answer: 3

Explanation:

Telling the client that insurance covers the drug doesn't answer the client's question.

Advertising costs are expensive, but this answer implies the drug company is raising costs unnecessarily.

If the cost of developing a new drug is not recouped by the drug company, there is no impetus for the company to continue drug development.

It is nontherapeutic for the nurse to introduce personal beliefs, such as accountability of drug companies, into a conversation with the client.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-8 Distinguish among a drug's chemical name, generic name, and trade name.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse reviews key events in the history of pharmacology with a student nurse. Which student comment indicates to the nurse that additional teaching is required?

"Modern pharmacology began in the early 1600s."

"Herbal medicine is one of the oldest forms of healthcare."

"John Jacob Abel is considered the father of American pharmacology."

"New drugs can be synthesized faster than isolating active agents from natural resources."

Answer: 1

Explanation:

Modern pharmacology began in the 1800s, not the 1600s.

It is true that herbal medicine is one of the oldest forms of healthcare.

John Jacob Abel, who is considered the father of American pharmacology owing to his many contributions to the field, founded the first pharmacology department in the United States at the University of Michigan in 1890.

In the twentieth century, pharmacologists were able to synthesize new medications faster than

by isolating active agents from natural resources.

Page Ref: 3

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-1 Identify key events in the history of pharmacology.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse is preparing a seminar about pharmacology concepts. Which information should the nurse include when teaching this class?

Biologics include natural plant extracts and dietary supplements.

Biosimilar drugs do not require the same clinical testing as the comparable biologic drug.

Alternative therapies are agents produced in animal cells or by microorganisms.

Therapeutics uses drugs to treat diseases and eliminate suffering.

Answer: 2

Explanation:

Biologics are agents naturally produced in animal cells, by microorganisms, or by the body itself.

Biosimilar drugs are similar to current biologic agents. They do not require the same level of testing as their comparable biologic agents.

Alternative therapies include natural plant extracts, herbs, vitamins, minerals, dietary supplements, and additional techniques outside the realm of conventional therapeutics.

Therapeutics is concerned with the prevention of disease and the treatment of suffering.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Planning

Learning Outcome: 1-3 Compare and contrast therapeutics and pharmacology.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client with chronic back pain reports receiving therapeutic touch in addition to medications. In which way should the nurse classify the client's treatment?

Pharmacotherapy

Drug-absence therapy

Complementary therapy

Biologic therapy

Answer: 3

Explanation:

Pharmacotherapy is the application of drugs for the purpose of treating diseases and alleviating human suffering.

The client is using medications as well as an alternative therapy.

The client is using a complementary and alternative medicine therapy. Therapeutic touch would be a body-based practice.

Biologic therapy involves the use of naturally produced substances by microorganisms or within the body.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity, and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 1-4 Compare and contrast traditional drugs, biologics including biosimilars, and complementary and alternative medicine therapies.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client taking a brand name drug wants to change to the generic form because it is less expensive. Which outcome should the nurse identify for the client after instructing about the use of generic medications?

States two ways a brand name drug differs from a generic name drug.

Takes the brand name drug after speaking with the physician.

Asks the nurse why brand name drugs are better than generic drugs.

Lists two ways to obtain the medication at a reduced cost.

Answer: 1

Explanation:

The dosage of drugs may be the same with a brand name and generic drug, but the bioavailability may be affected by the inert ingredients and tablet compression.

Referring the client to the physician is inappropriate because the nurse can educate the client about the difference between generic and brand name drugs.

The client asking the nurse a question is not an outcome.

Knowing ways to obtain medication at a reduced cost is an appropriate outcome, but the client will not learn why a brand name drug may be preferable over a generic drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning  
Learning Outcome: 1-9 Outline the major differences between prescription and over-the-counter drugs.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client is prescribed furosemide (Lasix); however, the pharmacy substitutes the generic equivalent of the medication. Which statement explains the nurse's action when giving the medication to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The nurse should have contacted the physician prior to administering the drug.

The nurse should have called the pharmacist to see if the drugs were bioequivalent.

The nurse used good judgment in administering the drug.

The nurse was correct; hospital policies allow for this.

The nurse should ask the client which brand of drug is used at home.

Answer: 3, 4

Explanation:

It is not feasible for the nurse to contact the physician every time there is a generic substitution. The pharmacist should only fill the prescription with a bioequivalent drug from the approved formulary.

The nurse used good judgment as hospital policies allow for generic substitution of certain drugs.

Use of formularies and negative formularies supports the hospital policies allowing substitution.

In most cases, the client will not know which brand of medication is used at home. The brand used at home would be relevant only in very few medications.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-10 Explain the differences between trade-name drugs and their generic equivalents.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse is documenting a client's list of current medications. Which substance should the nurse categorize as complementary and alternative medicine?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Garlic

Vitamin C

Zinc

Aspirin

Acetaminophen

Answer: 1, 2, 3

Explanation:

Garlic is considered an herb, which is considered complementary and alternative medicine therapy.

Vitamins are considered complementary and alternative medicine therapy.

Zinc is a mineral and is considered complementary and alternative medicine therapy.

Aspirin is an over-the-counter medication.

Acetaminophen is an over-the-counter medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.3 Demonstrate clinical judgment founded on a broad knowledge base. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-4 Compare and contrast traditional drugs, biologics including biosimilars, and complementary and alternative medicine therapies.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse is asked to explain the type of classification system used when drugs are grouped together because they help treat a particular disease or condition. Which response should the nurse make?

Therapeutic

Mechanism of action

Chemical

Pharmacological

Answer: 1

Explanation:

Therapeutic classification is based on the drug's usefulness in treating a particular disease.

Mechanism of action is how a drug produces its physiological effect in the body.

Chemical classification relates to a substance's physical and chemical properties.

Pharmacological classification addresses a drug's mechanism of action.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 1-5 Explain the basis for placing drugs into therapeutic and pharmacologic classes.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse explains how knowing information about a drug from a particular class will help understand other drugs in the same class. Which approach is the nurse using?

Mechanism of action approach

Generic name approach

Trade name approach

Prototype drug approach

Answer: 4

Explanation:

Mechanism of action is how the drug produces its physiological effect in the body. This approach does not focus on drug classifications.

Generic names are not used to understand drugs in a particular classification.

Trade names are specific to only one drug and do not focus on classifications.

In the prototype approach, one drug from a classification helps to understand other drugs in the same class.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 1-6 Discuss the prototype approach to drug classification.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse expects a medication to work by reducing blood pressure by blocking receptor sites.

Which pharmacotherapeutic principle is the nurse applying?

Drug—drug interaction

Adverse effects

Indication

Mechanism of action

Answer: 4

Explanation:

Drug—drug interactions refer to possible adverse reactions from using multiple drugs at the same time.

Adverse effects are what can result from drug use, not a description of how the drug works.

Indications are the reasons the drug is being used.

The nurse is expecting the way a drug produces an effect within the body, which is known as the mechanism of action.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-7 Describe what is meant by a drug's mechanism of action.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse is asked to explain generic drug names. Which response should the nurse make?

It describes the chemical composition of the medication.

Drugs that contain more than one active ingredient are classified as generic drugs.

The name the drug is assigned by the company marketing the drug.

There is only one name for each medication.

Answer: 4

Explanation:

This answer describes the chemical name of a medication.

A combination drug contains more than one active ingredient.

Trade names are assigned by the company marketing the drug.

Although drugs can have multiple trade names, each drug only has one generic name.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-8 Distinguish among a drug's chemical name, generic name, and trade name.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client asks why names of over-the-counter (OTC) supplements need to be reported because they are not drugs. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The healthcare provider needs to know everything you are taking."

"You're right. Would you mind listing them anyway?"

"The law requires us to keep a list of over-the-counter drugs and supplements that you are taking."

"It is true that supplements are not considered drugs; however, some of these products can cause adverse effects with prescribed drugs."

"We need to know if you are having an allergic reaction to one of them."

Answer: 1, 4

Explanation:

The healthcare providers involved in this client's care will need to know everything the client is taking—both prescription and OTC.

While it is true that supplements are not considered drugs, there is a specific reason why the healthcare team needs to know this information, which is the reason for the requested list on the paperwork. The nurse's answer did not address the client's question appropriately.

No law requires hospitals to keep records of OTC drugs and supplements that clients take. This information is needed, however, for other reasons.

Supplements are not subject to the same regulatory process as drugs, and some of these products can cause adverse effects and interact with medications.

It is possible that this client could be having an allergic reaction, but there is not enough information to determine this, and this is not the main reason why the healthcare team needs to know what OTC medications the client is taking.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-4 Compare and contrast traditional drugs, biologics including biosimilars, and complementary and alternative medicine therapies.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse explains to a student the benefit of using a prototype approach to learn pharmacology because it helps predict the characteristics of drugs in the same class. Which response by the student indicates additional teaching is required?

Therapeutic indications

Mechanism of action

Adverse effects

Duration of action

Answer: 4

Explanation:

The prototype drug has the same therapeutic indications, or clinical use, of other drugs in the same class.

Studying the therapeutic indications of a prototype drug helps predict actions and adverse effects of other drugs in the same group.

Studying the prototype drug helps predict the adverse effects of another drug in the same class.

Drugs in the same class may have a different duration of action.

Page Ref: 5

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 1-6 Discuss the prototype approach to drug classification.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

The nurse reviews the chemical name for a client's prescribed medication. For which reason should the nurse avoid using this name when teaching the client about the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

They are usually not brief or easy to remember.

They are often difficult to pronounce.

There is no standard for assigning names.

They do not explain the nature of the drug.

There is only one chemical name for each drug.

Answer: 1, 2

Explanation:

Chemical names are usually not brief or easy to remember.

Chemical names are often difficult to pronounce.

Chemical names are assigned by a standard nomenclature.

Chemical names do explain the nature of the drug.

While it is true each drug has only one chemical name, this is not one of the reasons nurses do not use the chemical name.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-8 Distinguish among a drug's chemical name, generic name, and trade name.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client is upset because so much money is spent on cancer drugs but medications for other conditions are not developed. Which information should the nurse consider when responding to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

More people are affected by cancer than by epilepsy.

There are drugs to treat most if not all health conditions.

The amount of money spent on drug development is determined at the federal level.

It would be easier to achieve a cure for cancer than to achieve a cure for other health problems.

The client should realize that family members may develop cancer one day.

Answer: 1, 2

Explanation:

According to the tenets of pharmacoeconomics, more money should be spent on development of drugs that will impact the most people.

There are many drugs developed to treat health conditions.

Money spent on drug development is determined at several levels, including individual corporations, universities, and governments.

There is no indication that curing cancer is easier than curing other health problems.

The nurse should not judge this client's statement as good or bad but should attempt to explain the allocation of resources.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 1-11 Describe how decisions are made relative to drug therapy among groups of patients.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

A client with advanced heart disease wants the healthcare provider to prescribe a new drug that was just developed. Which information should the nurse include in the response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Since the drug is new it is dangerous to use."

"Decisions on using drugs are based on many different variables."

"We certainly can talk to your healthcare provider about the drug."

"When drugs are first developed, they are very expensive and their use is limited to those who can afford to purchase them."

"People who are very sick often have unrealistic expectations of what drugs can do."

Answer: 2, 3

Explanation:

It is nontherapeutic to tell the client the drug is dangerous. At this point, the nurse has no knowledge of which drug is being discussed.

Use of particular drugs is based on many different variables, including cost—benefit ratio.

The nurse should support the client's interest in this drug by advocating for a discussion about its

use.

The nurse should not assume the drug is expensive or that the client is unable to obtain it. It is nontherapeutic to tell the client that interest in this drug is unrealistic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 1-11 Describe how decisions are made relative to drug therapy among groups of patients.

MNL Learning Outcome: Examine the basic concepts of pharmacology.

***Pharmacology for Nurses, 7e (Adams)***  
**Chapter 2 Drug Approval and Regulation**

A representative reports that a pharmaceutical laboratory is marketing a drug that does not need approval by the U.S. Food and Drug Administration (FDA). Which response should the nurse make?

"Any pharmaceutical laboratory in America must have approval from the FDA before marketing a drug."

"Is this an over-the-counter drug? They do not need approval by the FDA."

"Is your pharmaceutical laboratory private? Only public pharmaceutical laboratories need approval from the FDA."

"Your pharmaceutical laboratory must be involved in academic research because they are exempt from approval by the FDA."

Answer: 1

Explanation:

Any pharmaceutical laboratory must obtain approval from the FDA before marketing a drug. Pharmaceutical laboratories that manufacture over-the-counter drugs must obtain approval from the FDA before marketing these drugs.

Private pharmaceutical laboratories must obtain approval from the FDA before marketing a drug.

Pharmaceutical laboratories involved in academic research must obtain approval from the FDA before marketing a drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-2 Discuss the role of the U.S. Food and Drug Administration (FDA) in the drug approval process.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is employed by the U.S. Food and Drug Administration and is involved in clinical investigation. Which tests will the nurse perform in this phase of review?

The population-at-large

Various species of animals

Human cells cultured in a laboratory

Human clients

Answer: 4

Explanation:

Performing tests on the population-at-large is the stage of postmarketing surveillance.

Performing tests on various species of animals is the preclinical investigation stage.

Performing tests on human cells cultured in a laboratory is the preclinical investigation stage.

Clinical investigation includes performing tests on healthy volunteers and, later, on selected clients with a particular disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is reviewing the role of the U.S. Food and Drug Administration (FDA). Which information explains how the FDA has increased the speed to bring new drugs to market? The FDA is not as strict as it once was with regard to drug approval.

Since consumers have demanded more drugs, the FDA has streamlined the review/approval process.

Drug manufacturers are required to pay yearly user fees, which allow the FDA to hire more employees to increase its efficiency.

Drug manufacturers are required by the FDA to test more drugs on an annual basis.

Answer: 3

Explanation:

The FDA is just as strict now as it always was with regard to drug approval.

The FDA has not streamlined the review/approval process.

In 1992, the Prescription Drug User Fee Act was passed. This required drug manufacturers to provide yearly product user fees so the FDA could restructure, hire more employees, and operate more efficiently.

The FDA does not require drug manufacturers to test more drugs on an annual basis.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 2-4 Discuss how the FDA has increased the speed with which new drugs reach consumers.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client with a skin condition asks why a new medication being developed is not yet available for use pending U.S. Food and Drug Administration (FDA) approval. Which response should the nurse make?

"I know it is frustrating, but the FDA approval process is in place to ensure that drugs are safe."

"The FDA has very strict rules about new drugs; it is important to be patient regarding the review/approval process."

"Your skin lesions really aren't that bad, but maybe the new drug will be available soon."

"Maybe you could contact the drug company about becoming involved in a clinical trial."

Answer: 1

Explanation:

Although the public is anxious to receive new drugs, the fundamental priority of the FDA is to ensure that drugs are safe.

Telling the client to be patient is a condescending response; the client wants relief from the skin condition.

Telling the client the skin lesions "aren't that bad" is a nontherapeutic response.

The client could contact the drug company, but this response fosters false hope depending on the phase of the drug's development.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-2 Discuss the role of the U.S. Food and Drug Administration (FDA) in the drug approval process.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client asks how many Americans take at least one prescription drug per year. Which response should the nurse make?

1. 50%
2. 10%
3. 40%
4. 25%

Answer: 1

Explanation:

About half of Americans take prescription drugs and one out of six individuals take at least three prescription drugs.

The percentage of Americans taking at least one prescription drug is higher.

This is not the percentage of Americans taking at least one prescription drug.

This is not the percentage of Americans taking at least one prescription drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.B.4 Read original research and evidence reports related to area of practice. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-1 Identify key U.S. drug regulations that have provided guidelines for the safe and effective use of drugs and drug therapy.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse instructs parents on the need to restrict stimulant medications used to treat attention-deficit/hyperactivity disorder. Which response indicates to the nurse that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The use of these medications is restricted so that the pharmacies can track the rate of drug abuse in our city."

"The use of these medications is restricted because the physician needs to evaluate our child more often."

"The use of these medications is restricted because they have the potential for abuse."

"The use of these medications is restricted so that the drug companies can make a bigger profit."

"The use of these medications is restricted because this is the current law."

Answer: 3, 5

Explanation:

Pharmacies do not track the rate of drug abuse in cities.

More frequent evaluations is a good plan, but this is not the reason for restricted use of stimulant medications.

Medications with abuse potential are restricted.

Drug companies do not make a bigger profit when medications are listed as restricted.

The Controlled Substance Act is the law under which medications with abuse potential are restricted. Stimulant medications are considered controlled substances.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and

procedures. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 2-7 Discuss why drugs are sometimes placed on a restrictive list, and the controversy surrounding this issue.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client asks if taking a controlled substance will cause addiction. Which response should the nurse make?

"Are you concerned about becoming an addict? We can discuss this in more detail if you would like to."

"You are not an addict; the Drug Enforcement Administration restricts the use of drugs with a high potential for abuse."

"Why do you ask about becoming an addict? Not many of our clients have asked this question."

"You are not an addict, but the Drug Enforcement Administration will monitor you for this."

Answer: 2

Explanation:

It is premature at this time to ask the client if there is concern about addiction; there is no information to support an addiction.

Drugs that have a high potential for addiction are considered controlled substances.

"Why" questions are considered nontherapeutic because they put the client on the defense.

The Drug Enforcement Administration does not monitor clients for addiction when they receive controlled substances.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and

procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-6 Explain the U.S. Controlled Substance Act of 1970 and the role of the U.S. Drug Enforcement Administration in controlling drug abuse and misuse.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client taking a Schedule II drug is concerned that Drug Enforcement Administration (DEA) agents will come to the client's home. Which response will the client make?

"It is probably unlikely that Drug Enforcement Administration (DEA) agents will be bothering you."

"No, the DEA restricts drugs that have a high potential for abuse."

"No. I think our system should be more like Europe; they have fewer controlled drugs."

"That's an interesting question. Are you worried about the DEA?"

Answer: 2

Explanation:

Telling the client that DEA agents will "probably" not bother can lead the client to think DEA agents might bother him.

The Controlled Substance Act of 1970 restricts the use of drugs that have a high potential for abuse. Hospitals and pharmacies must register with the DEA to obtain a specific registration number that will enable them to purchase controlled drugs.

By saying that our system should be more like Europe's, the nurse's beliefs are being introduced, which is nontherapeutic; the client may not agree.

Asking the client about the DEA may add to the client's concern and would not be therapeutic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-6 Explain the U.S. Controlled Substance Act of 1970 and the role of the U.S. Drug Enforcement Administration in controlling drug abuse and misuse.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client reports experiencing daily stress. Which response should the nurse make when the client admits to smoking marijuana every day?

"What other ways do you think you might use to help you to manage your stress?"

"Aren't you afraid of going to jail for a long time if you get caught?"

"Do you really believe that everyone smokes marijuana to manage stress?"

"How often do you smoke marijuana, and how much each time?"

Answer: 4

Explanation:

Stress management is not the main concern during the admission assessment.

Asking the client about being arrested is not an assessment question.

Asking the client if everyone smokes marijuana to manage stress is not an assessment question and can lead to an argument with the client.

The nurse must assess the amount and frequency of any drug the client uses, including illegal drugs.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and

procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-9 Identify the five drug schedules and give examples of drugs at each level.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The parent of an adolescent taking a stimulant medication for attention-deficit/hyperactivity disorder asks why a new prescription is needed each month. Which response should the nurse make?

"Just drop by and I will get you a prescription."

"We can't do that; maybe you can find another doctor's office that will do it."

"The law does not allow us to give you refills on this medication."

"How do you feel about having to get a new prescription each month?"

Answer: 3

Explanation:

Although it's true that the parent will need to get a new written prescription each month, this response does not really answer the parent's question, so it's not the best answer.

Referring the parent to another office is nontherapeutic and implies that other medical offices violate the law.

Telling the parent about the law is accurate and is the only response that answers the question. Although this is a therapeutic response, it does not answer the parent's question.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-7 Discuss why drugs are sometimes placed on a restrictive list, and the controversy surrounding this issue.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client with a terminal illness asks if a drug in preclinical investigation will be available for use soon. Which information should the nurse consider before responding to this client?

After preclinical investigation the drug has one more step before being released for public use.

The average length of preclinical investigation is 18 months.

When the drug reaches the clinical investigation stage it is usually released within 2 years.

The drug will not be available until after the postmarketing studies are done.

Answer: 2

Explanation:

Preclinical investigation is the first of three stages the drug must go through before being released for use.

Preclinical investigation may last 1-3 years, with 18 months being the average.

Clinical investigation may last 2-10 years, with 5 years being the average.

Postmarketing studies are started as soon as the New Drug Application review is completed and may continue for years after drug release.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and

procedures. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client with a terminal illness is instructed on the use of a Schedule II analgesic. Which client statement indicates to the nurse that teaching was effective?

"I need to call the office for a refill before my medication runs out."

"This drug is addictive so I should only take it when my pain becomes severe."

"Maybe my physician could change me to a Schedule IV drug."

"I need to see my doctor before my prescription runs out so I can get a refill."

Answer: 4

Explanation:

Schedule II drugs cannot be refilled by phone order.

Not taking pain medication until the pain becomes severe is an inappropriate use of pain medication for a client with terminal cancer.

A Schedule IV drug may not effectively relieve the client's pain.

The client must see the physician for a refill.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 2-7 Discuss why drugs are sometimes placed on a restrictive list, and the controversy surrounding this issue.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is reading about a new medication being developed to treat a chronic illness. In which phase should the nurse realize the drug is in when it is being tested on laboratory animals?

Clinical investigation

Preclinical investigation

New Drug Application review

Postmarketing studies

Answer: 2

Explanation:

Clinical investigation involves testing the drug on human subjects.

Preclinical investigation involves laboratory research on nonhuman subjects.

New Drug Application review occurs during human clinical trials.

Postmarketing studies occur after the drug is being used by the general population.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and

procedures. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

While reading a medication package insert, the nurse notes information contained within the "black box." In which way should the nurse interpret this information?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The drug can cause "special issues."

It identifies extreme adverse drug reactions.

It differentiates a prescribed medication from an over-the-counter medication.

It highlights the cost of the medication.

It signifies the medication is generic.

Answer: 1, 2

Explanation:

The U.S. Food and Drug Administration created boxed warnings in order to regulate drugs with "special issues."

The black box warning is a primary alert for identifying extreme adverse drug reactions.

Black box warnings are not a mechanism to differentiate a prescribed medication from an over-the-counter medication.

It does not highlight the cost of the medication.

It does not signify the medication as being generic.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 2-1 Identify key U.S. drug regulations that have provided guidelines for the safe and effective use of drugs and drug therapy.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is participating in the New Drug Application (NDA) step for a new therapeutic agent. Which activity will the nurse most likely perform during this phase of the drug approval process?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Attend meetings to finalize the brand name for the drug.

Check on the results of animal testing.

Survey for harmful effects in a larger population.

Evaluate the results of the drug on cultured cells.

Provide the medication to large groups of people with a particular disease.

Answer: 1, 2

Explanation:

During the NDA or the third stage of the drug approval process, the drug's brand name is finalized.

During the NDA stage of the drug approval process, animal testing may continue.

Surveying for harmful effects in a larger population occurs during the postmarketing surveillance step of the drug approval process.

Evaluation of the results of the drug on cultured cells occurs during the preclinical investigation step of the drug approval process.

Providing the medication to large groups of people with a particular disease occurs during the clinical phase trials, which is in the second stage of the drug approval process.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is asked to explain the role of the U.S. Food and Drug Administration (FDA). Which information should the nurse include in response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Responsible for improving the health of Americans.

Publishes a summary of the standards of drug purity and strength.

Ensures the availability of effective drugs.

Takes action against any supplement that is deemed to be unsafe.

Facilitates the availability of safe drugs.

Answer: 1, 3, 4, 5

Explanation:

The FDA's mission is to protect public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biologic products, medical devices, the nation's food supply, cosmetics, and products that emit radiation.

It is the role of the U.S. Pharmacopeia to publish a summary of drug standards (purity and strength).

Ensuring the availability of effective drugs is one of the FDA's roles.

It is the FDA's role to take action against any supplement that is deemed to be unsafe.

It is the role of the FDA to facilitate the availability of safe drugs.

Page Ref: 14

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-1 Identify key U.S. drug regulations that have provided guidelines for the safe and effective use of drugs and drug therapy.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is discussing the preclinical research stage of drug development with a group of nursing students. Which statement indicates to the nurse that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

A drug may not proceed past the preclinical stage because they are found to be too toxic or just ineffective.

At the end of the preclinical research stage, client variability is determined and potential drug-to-drug interactions are examined.

The preclinical stage of research involves extensive testing on animals in the laboratory to determine if the drug will cause harm to humans.

Preclinical research results are always inconclusive.

The U.S. Food and Drug Administration (FDA) is responsible for extensive testing for safety before the pharmaceutical company can begin the preclinical research stage of development.

Answer: 1, 3, 4

Explanation:

Most drugs do not proceed past the preclinical research stage of development because they are found to be either too toxic or just ineffective.

Client variability and potential drug-to-drug interactions are examined in Phase 3 of the clinical investigation process after FDA approval.

The preclinical stage involves extensive testing on human, microbial cells, and animals to determine drug action and to predict whether the drug will cause harm to humans.

Because lab tests cannot accurately predict human response to a drug, these results are always inconclusive.

This extensive testing is done by the pharmaceutical company in the preclinical research stage of drug development, not the FDA.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is developing a timeline of drug regulations and standards. Which event should the nurse list as the first drug regulation and/or standard?

Passage of the Sherley Amendment

Passage of the Childhood Vaccine Act

Development of the U.S. Pharmacopoeia

Passage of the Biologics Control Act

Answer: 3

Explanation:

Passed in 1912, the Sherley Amendment made medicines safer by prohibiting the sale of drugs labeled with false therapeutic claims.

The Childhood Vaccine Act was passed in 1986 and allowed the U.S. Food and Drug Administration to acquire information about clients taking vaccines, to recall biologics, and to recommend civil penalties if guidelines regarding biologic use were not followed

The U.S. Pharmacopoeia was established in 1820 and served as the first comprehensive publication of drug standards.

The Biologics Control Act was passed in 1902 and controlled the quality of serums and other blood-related products.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-1 Identify key U.S. drug regulations that have provided guidelines for the safe and effective use of drugs and drug therapy.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client is concerned about becoming addicted to an analgesic. Which drug should the nurse explain has the highest risk for dependence?

Acetaminophen

Codeine

Heroin

Diazepam

Answer: 3

Explanation:

Acetaminophen does not have a high abuse potential.

Codeine is a Schedule III drug.

Heroin is a Schedule I drug and has the highest potential for abuse, physical dependence, and psychological dependence of the drugs listed.

Diazepam is a Schedule IV drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-9 Identify the five drug schedules and give examples of drugs at each level.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A drug is withdrawn from a client who has been taking it routinely for many years. In which way should the nurse document the client's response when muscle tremors occur?

An adverse effect

Evidence that the client had psychological dependence on the drug

An expected therapeutic effect of no longer taking the drug

Assessment finding associated with physical dependence on a drug

Answer: 4

Explanation:

Adverse effects are seen while the drug is being taken, not after it is withdrawn.

With psychological dependence, few physical signs are seen.

Therapeutic effects are seen while drugs are being used, not after they have been removed.

The presence of physical withdrawal symptoms such as muscle tremors can occur when a person is physically dependent on a drug and the drug is removed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.5 Assess levels of physical and emotional comfort. | AACN

Domains and Competencies: 8.4 Use information and communication technology to support

documentation of care and communication among providers, patients, and all system levels. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-7 Discuss why drugs are sometimes placed on a restrictive list, and the controversy surrounding this issue.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is reviewing prescription refill request messages. Which drug refill should the nurse send to the pharmacy by telephone?

Morphine

Cannabis

Meperidine

Diazepam

Answer: 4

Explanation:

Morphine is a Schedule II drug. Telephone prescription requests are not allowed. The client must be examined by a physician prior to a new prescription being written.

Cannabis is a Schedule I drug. Telephone prescriptions requests are not allowed.

Meperidine is a Schedule II drug. Telephone prescription requests are not allowed.

Diazepam is a Schedule III drug. Telephone prescription refills are allowed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-5 Identify the advanced practice registered nurse's role in prescribing drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is administering a medication to a group of volunteers and is assessing for the development of adverse effects. In which phase of drug development is the nurse providing care?

Clinical Phase I trials

Preclinical investigation

Clinical Phase II trials

Clinical Phase III trials

Answer: 1

Explanation:

The clinical Phase I trial is when investigators first begin to administer the drug to volunteers to determine proper dosage and to assess for adverse effects.

Preclinical investigation is done on human and microbial cells.

The clinical Phase II trial lasts about 2 years and involves 100-300 volunteer patients with the disease.

The clinical Phase III trial takes about 3 years and involves 1000-3000 patients in hospitals and clinic agencies.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-3 Explain the four phases of approval for therapeutic and biologic drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client agreeing to participate in the clinical trial of a medication to treat chemotherapy-induced nausea states the medication is going to cure cancer. Which response should the nurse make before having the client complete the informed consent form?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Who told you the medication would cure your cancer?"

The nurse should be certain the client has no questions prior to having the consent signed. It is not the nurse's responsibility to explain how the medication works. It is the responsibility of the researcher or healthcare provider. The nurse should refer questions to those individuals. It is the nurse's responsibility to ensure that the client has been provided with facts about the medication and the clinical trial prior to having the consent signed.

The nurse should identify that this client does not fully understand the purpose of this medication and should collaborate with the researcher or healthcare provider regarding this misunderstanding.

Answer: 2, 4

Explanation:

It is not important to discover who specifically gave the client this information.

The nurse should be certain the client has no questions prior to having the consent signed. It is not the nurse's responsibility to explain how the medication works. It is the responsibility of the researcher or healthcare provider. The nurse should refer questions to those individuals. It is the nurse's responsibility to ensure that the client has been provided with facts about the medication and the clinical trial prior to having the consent signed.

The nurse should identify that this client does not fully understand the purpose of this medication and should collaborate with the researcher or healthcare provider regarding this misunderstanding.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.12 Facilitate informed patient consent for care. | AACN

Domains and Competencies: 9.4 Comply with relevant laws, policies, and regulations. | NLN

Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 2-5 Identify the advanced practice registered nurse's role in prescribing drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is asked why some medications get approved by the U.S. Federal Drug Administration (FDA) faster. Which response should the nurse make?

The FDA collects a user fee from pharmaceutical companies and uses it to hire more employees to speed up the process.

Pharmaceutical companies are allowed to skip the Preclinical Investigation phase if they are developing a chemotherapy drug.

The Accelerated Approval Program allows earlier approval of a medication if it is a commonly used drug.

A smaller group of patients with a particular disease are selected for the clinical phase trials.

Answer: 1

Explanation:

The Prescription Drug User Fee was enacted in 1992. Drug manufacturers are required to pay a user fee annually. The FDA uses this money to hire more employees and speed up the approval process.

Drug companies that manufacture medications for serious conditions, such as cancer, still have to follow the entire FDA New Drug Application process.

The Accelerated Approval Program allows for earlier approval of a new drug that is used to treat serious medical problems.

A large group of patients with a particular disease are selected for clinical trials.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-4 Discuss how the FDA has increased the speed with which new drugs reach consumers.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is asked to explain the role of the advanced practice registered nurse (APRN) in prescribing medications. Which response should the nurse make?

The ability to prescribe drugs is regulated by federal law.

All APRNs can prescribe medications.

Nurse practitioners are an example of an APRN.

APRNs may increase the cost of healthcare.

Answer: 3

Explanation:

The ability to prescribe medications is regulated by state laws, not federal law.

Some states have not authorized APRNs to prescribe medications.

Nurse practitioners are an example of an APRN.

APRNs can decrease the cost of healthcare.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-5 Identify the advanced practice registered nurse's role in prescribing drugs.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client asked why a prescribed medication is considered "scheduled" when all medications are taken on a schedule. Which response should the nurse make?

"What time would you like to schedule your pain medication?"

"Medications are usually scheduled every 4 hours."

"Scheduled medications have a significant potential for abuse."

"During preclinical investigation, scheduled medications are tested."

Answer: 3

Explanation:

"Pain medication is usually given PRN (when needed)."

"Some medications are ordered to be given every 4 hours."

"Drugs with a significant potential for abuse are classified into five schedules or categories.

These drugs are called 'scheduled drugs.'"

During the preclinical investigation phase of drug approval, medications are tested to make sure they are safe.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-9 Identify the five drug schedules and give examples of drugs at each level.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

An advanced practice registered nurse (APRN) is hired to provide care to clients in a rural

community clinic. Which action should the nurse take before prescribing scheduled medications?

Register with the state board of nursing.

Attend a class on scheduled medications.

Apply for a Drug Enforcement Administration (DEA) number.

Identify pharmacies available to fill prescriptions for these medications.

Answer: 3

Explanation:

The nurse is registered with the state board of nursing upon completing an advanced nursing program that includes prescription authority.

The nurse does not need to attend a class on scheduled medications,

APRNs with prescription authority must register with the DEA and receive an assigned number before prescribing scheduled drugs.

There is no need for the nurse to identify pharmacies available to fill prescriptions for scheduled medications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-6 Explain the U.S. Controlled Substance Act of 1970 and the role of the U.S. Drug Enforcement Administration in controlling drug abuse and misuse.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A client reports taking herbal and dietary supplements to treat a health condition. Which information should the nurse explain to the client about the use of these products?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The U.S. Food and Drug Administration (FDA) oversees the administration of these products through the Center for Food Safety and Applied Nutrition.

The Dietary and Supplement Health and Education Act regulates these products.

These products have to be approved by the FDA prior to marketing.

The package inserts of these products are monitored once they are on the market.

These products are considered biosimilar and do not need FDA approval or testing.

Answer: 1, 2, 4

Explanation:

The FDA oversees the administration of herbal products and dietary supplements through the Center for Food Safety and Applied Nutrition.

Herbal products and dietary supplements are regulated by the Dietary Supplement Health and Education Act of 1994.

Herbal and dietary supplements can be marketed without prior approval from the FDA.

All package inserts and information about herbal and dietary supplements are monitored once the products have gone to market.

Herbal products and dietary supplements are not biosimilar as they are not categorized as biologic products.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-2 Discuss the role of the U.S. Food and Drug Administration (FDA) in the drug approval process.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

A drug manufacturer has positive results from testing done with a new drug. Which action should the manufacturer take to accelerate the review process for this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Apply for fast-track designation.

Categorize the drug as breakthrough therapy.

Request priority review of the drug.

Petition for the drug to have accelerated approval.

Increase the amount paid to the U.S. Food and Drug Administration to have the drug approved.

Answer: 1, 2, 3, 4

Explanation:

A fast-track designation means that the developing drug has the potential to meet an unmet need for a condition in which there is no current therapy, or the drug may offer significant improvements over existing therapies.

A breakthrough therapy means that clinical trials suggest that there is clinical evidence that the drug may demonstrate substantial improvement over existing therapies for a serious or life-threatening condition.

The decision for a priority review is based on whether the new drug would offer a significant improvement over existing therapies for a serious condition.

Accelerated approval may be provided if the drug's intermediate clinical endpoints are favorable.

Congress passed the Prescription Drug User Fee Act. It required that nongeneric drug and biologic manufacturers pay fees to be used for improvements in the drug review process. Paying more money will not get the drug approved faster.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4 Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety: Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-4 Discuss how the FDA has increased the speed with which new drugs reach consumers.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

The nurse is reviewing the agencies within the U.S. Food and Drug Administration. Which healthcare product would the nurse expect to be regulated by the Center for Biologics Evaluation and Research (CBER)?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Serums

Vaccines

Blood products

Gene therapies

Antibiotics

Answer: 1, 2, 3, 4

Explanation:

The CBER regulates the use of biologics to include serums.

Vaccines are regulated by the CBER.

The CBER regulates the use of biologics to include blood products.

Gene therapies are regulated by the CBER.

The CBER regulates the use of biologics. Antibiotics are not considered biologic agents.

Page Ref: 14

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 9.4

Comply with relevant laws, policies, and regulations. | NLN Competencies: Quality and Safety:

Policies and procedures. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 2-1 Identify key U.S. drug regulations that have provided guidelines for the safe and effective use of drugs and drug therapy.

MNL Learning Outcome: Examine drug approval and regulations and how they affect safety.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 3 Principles of Drug Administration**

The nurse is preparing several medications for a client. Which responsibility does the nurse have about medication administration?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Cost of the medication

Reason the medication was prescribed

Route of administration

How the medication is supplied by the pharmacy

Name of the medication

Answer: 2, 3, 4, 5

Explanation:

Although the cost of a medication may lead to nonadherence at home, it is not a factor when administering medications in a healthcare facility.

Knowing the reason the medication was prescribed for the patient is the responsibility of the nurse regarding medication administration.

Knowing how the medication is to be administered is the responsibility of the nurse regarding medication administration.

Knowing how the medication is supplied by the pharmacy is the responsibility of the nurse regarding medication administration.

Knowing the name of the medication is the responsibility of the nurse regarding medication administration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 3-2 Describe the roles and responsibilities of nurses regarding safe drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is preparing medications for a client. Which rights should the nurse follow to ensure the client's safety?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The right medication

The right time of delivery

The right dose

The right route of administration

The right nurse

Answer: 1, 2, 3, 4

Explanation:

The right medication is an essential consideration of medication administration and is considered one of the five rights.

The right time of delivery is an essential consideration of medication administration and is considered one of the five rights.

The right dose is an essential consideration of medication administration and is considered one of the five rights.

The right route of delivery is an essential consideration of medication administration and is considered one of the five rights.

The right nurse is not one of the listed rights of medication delivery.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 3-3 Explain how the five rights of drug administration affect patient safety.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is concerned that a client has not been taking a prescribed antihypertensive medication because the client's blood pressure remains elevated. Which question should the nurse ask the client?

"Taking medication can be difficult for some people. What are some of your concerns about the medication?"

"Your blood pressure is really high; do you realize the serious consequences of not taking your medication?"

"I really doubt that you are taking your medication. What would you think about talking to the physician?"

"You are one of my favorite clients and I want you to be safe. Are you really taking your medication?"

Answer: 1

Explanation:

The most therapeutic question informs the client that compliance is difficult for many people and does not directly challenge the client about not taking the medication.

Telling the client the blood pressure is high and there are serious consequences is using the "scare tactic" and is nontherapeutic; the client most likely is aware of the consequences.

Telling the client that the nurse doubts they are taking the medication is a direct challenge and recommending that the client see the physician is threatening.

Telling the client that they are a favorite is manipulating.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.1 Elicit patient values, preferences, and expressed needs as part of clinical interview, implementation of care plan, and evaluation of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity, and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Implementation

Learning Outcome: 3-4 Give specific examples of how nurses can increase patient adherence in taking medications.

MNL Learning Outcome: Examine the principles of drug administration.

A healthcare provider prescribes a STAT medication, and the nurse provides it 30 minutes later. Which statement best describes the nurse's action?

The medication should have been administered immediately.

The healthcare provider should have specified the time frame for the medication.

The medication should have been administered within a 5-minute time frame.

The nursing action was correct.

Answer: 3

Explanation:

Although the drug does not need to be administered immediately, there is a time limit in which it should be administered.

For a STAT order, the time frame between writing the order and administering the drug should be 5 minutes or less. By using the abbreviation STAT, the physician has specified the time frame for the medication.

For a STAT order, the time frame between writing the order and administering the drug should be 5 minutes or less.

The nursing action was not correct.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6

Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 3-5 Interpret drug orders that contain abbreviations.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is preparing to administer medication to a client. Which client assessment should the nurse complete first?

Developmental level

Medical history

Disease process

Learning needs

Answer: 2

Explanation:

Assessing the client's developmental level is important for medication education but not for safely administering medications.

An assessment of the client's medical history, which includes allergies, is the most important assessment prior to administering medications.

Assessing the client's disease process is important in evaluating the effects of the medications but not for safely administering medications.

Assessing the client's learning needs is important for medication education but not for safely administering medications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.3

Integrate assessment skills in practice. | NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 3-1 Discuss drug administration as a component of safe, effective nursing care, using appropriate clinical judgment.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is preparing oral medications for a client. Which assessment should the nurse complete before giving these medications?

Understanding of the medication

Ability to swallow

Allergies

Eyesight

Answer: 2

Explanation:

The client's understanding is important, but not a priority.

The ability of the client to swallow is a safety issue to prevent aspiration of the medication.

The client's allergies are important, but if the client cannot swallow the medication, then the allergies are not significant.

The client's eyesight is not significant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse administers an oral medication through the intravenous route. In which way should this error be analyzed?

An antidote cannot be given.

The nurse will be terminated from the job.

The medication cannot be retrieved.

A lawsuit by the client will be impending.

Answer: 3

Explanation:

Antidotes may be given, but this must be done very quickly.

The nurse may be terminated, but client safety is the main concern.

When a medication is given intravenously, its effects cannot be reversed because it is already in the bloodstream.

A lawsuit may occur, but this is not the primary concern; client safety is the primary concern.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is preparing to administer a topical medication. Which intervention should the nurse make a priority?

Check the medication for interactions with other medications.

Measure the client's vital signs.

Educate the client to not disturb the patch.

Assess the client's skin where the medication will be applied.

Answer: 4

Explanation:

Checking for drug interactions is important, but it is not the priority.

Vital signs are not always indicated; it depends on the medication.

Client education is important but is not the priority.

Planning to assess the client's skin is imperative; if it is cracked, dry, or irritated, the medication may not be properly absorbed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Planning

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A client prescribed an intravenous medication for nausea asks how the medication works if it is administered through a vein. Which response should the nurse make?

"We have more intravenous drugs for nausea than we do oral drugs."

"If you take an oral medication, you will just vomit it up."

"This will work much faster for your nausea."

"You can't have anything by mouth, so you will receive the medication intravenously."

Answer: 3

Explanation:

Telling the client that the nurse has more intravenous drugs than oral drugs does not answer the client's question.

Telling the client that they will vomit the medication is nontherapeutic.

The intravenous route provides the quickest route of medication absorption.

There is no evidence that the client cannot have anything by mouth.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-8 Compare and contrast the advantages and disadvantages of each route of drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

A healthcare provider prescribes enteric-coated aspirin, 300 mg every day, for the client with a nasogastric tube. Which action should the nurse take?

Crush the tablet and administer through the tube.

Put the tablet in the tube and "milk" it down the tube.

Withhold the medication and contact the healthcare provider.

Substitute plain aspirin and administer through the tube.

Answer: 3

Explanation:

Crushing the tablet destroys the enteric coating.

Putting the tablet in the tube will result in clogging of the tube.

The only option is to withhold the medication and contact the healthcare provider.

The nurse cannot substitute plain aspirin; this requires a healthcare provider's prescription.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A client prescribed a sustained-release capsule is concerned about being able to swallow a

large pill. Which response should the nurse make?

"Let me contact your healthcare provider to see if a change can be made."

"Place the capsule on the back of your tongue and drink a full glass of water."

"I will open the capsule and sprinkle the contents over some applesauce for you to eat."

"It may be difficult but try to swallow the capsule as it is the best medicine for your heart condition."

Answer: 1

Explanation:

The only option is to contact the healthcare provider.

Placing the capsule on the back of the client's tongue and having them drink a full glass of water may cause the client to aspirate the capsule and/or the water.

Sustained-release medications cannot be opened and sprinkled on food.

Encouraging the client to try to swallow the capsule is coercive and may result in the client choking on the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

While in the hospital, a pediatric client has been receiving amoxicillin 10 mL orally bid. Which instruction should the nurse provide to the parent for the client to take this medication at home?

Give 2 teaspoons by mouth, three times a day

Give 2 teaspoons by mouth, twice a day

Give 2 tablespoons by mouth, three times a day

Give 2 tablespoons by mouth, twice a day

Answer: 2

Explanation:

Giving 2 teaspoons by mouth, three times a day is too much medication.

Giving 2 teaspoons by mouth, twice a day is correct.

Giving 2 tablespoons by mouth, three times a day is too much medication.

Giving 2 tablespoons by mouth, twice a day is too much medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6

Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Current

best practices. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-5 Interpret drug orders that contain abbreviations.

MNL Learning Outcome: Examine the principles of drug administration.

A client recovering from surgery 3 days ago is prescribed an oral analgesic medication. Which response should the nurse make when the client asks for intravenous medication?

"You could not medicate yourself intravenously (IV) at home."

"Pills are more effective than intravenous (IV) medications."

"Pills are safer than intravenous (IV) medications."

"We are going to take your intravenous (IV) line out."

Answer: 3

Explanation:

There is no evidence that the client will be going home with an intravenous line, so this answer is incorrect.

Oral medications are not more effective than IV medications.

Oral medications are safer than intravenous (IV) medications.

Telling the client that they cannot have the medication intravenously because the intravenous line is to be removed does not answer the client's question.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and

quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-8 Compare and contrast the advantages and disadvantages of each route of drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

A student nurse is administering heparin subcutaneously (SQ) to a client. For which reason

should the nurse intervene during this administration?

Apply gloves

Aspirate for blood

Prep the skin with alcohol

Inject at a 45-degree angle

Answer: 2

Explanation:

Gloves must always be worn for invasive techniques.

When performing heparin injections, the nurse should not aspirate for blood as this may cause bruising or bleeding.

The skin should be prepped with alcohol prior to administering an injection.

The nurse performed the correct technique.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A client is prescribed an analgesic to be given intravenous (IV) q 3-4 hours prn. Which statement should the nurse make when teaching the client about this medication order?

"Let me know when you are having pain."

"This medication will be given to you at a set time every day, probably just before your bath."

"You will be given this medication at bedtime each night so that you can rest."

"Always take this medication with food or milk because it might upset your stomach."

Answer: 1

Explanation:

The abbreviation PRN is used to designate as needed.

PRN does not mean every day.

PRN does not mean at bedtime.

PRN does not mean with food.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6

Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-5 Interpret drug orders that contain abbreviations.

MNL Learning Outcome: Examine the principles of drug administration.

A client has an adverse reaction to a drug following a change in dietary habits. Which reason should the nurse suspect caused the reaction?

Increased intake of grapefruit juice

Reduced intake of alcohol

Increased fiber intake

Reduced intake of citrus fruit

Answer: 1

Explanation:

Grapefruit juice lowers the activity of enzymes in the gastrointestinal system that break down medications. This in turn results in higher medication absorption into the bloodstream.

A reduced intake of alcohol would not likely produce an increased reaction to a drug.

A reduced intake of fiber would not likely produce an increased reaction to a drug.

A reduction in citrus fruit intake would likely cause a lowered drug reaction.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Current best

practices. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 3-1 Discuss drug administration as a component of safe, effective nursing care, using appropriate clinical judgment.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse provides a client with liquid acetaminophen 650 mg by mouth as prescribed. Which statement about the rights of medication administration should the nurse consider when the client states the same dose is usually taken in a pill form?

The nurse failed to deliver the correct dose.

The nurse failed to administer the right medication.

The nurse did not violate the five rights.

The nurse failed to give the medication via the correct route.

Answer: 3

Explanation:

The correct dose was administered.

The correct medication was administered.

Nothing in the question depicts a violation of the five rights. Both forms of the medication are oral preparations.

The correct route was used.

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Cognitive Level: Analyzing

Client Need/Sub: Safe and Effective Care Environment: Pharmacologic and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Current best

practices. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 3-3 Explain how the five rights of drug administration affect patient safety.

MNL Learning Outcome: Examine the principles of drug administration.

A pediatric client has been receiving 5 mL of liquid antibiotic three times each day. Which amount of the medication per dose should the nurse instruct the parent to give the client at home?

2 tablespoons

1 fluid ounce

15 drops

1 teaspoon

Answer: 4

Explanation:

Five milliliters is not equivalent to two tablespoons.

A fluid ounce is equal to 30—32 mL.

Five milliliters is equal to about 60 drops.

One standard teaspoon is equal to 4 or 5 mL.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-6 Compare and contrast the three systems of measurement used in pharmacology.

MNL Learning Outcome: Examine the principles of drug administration.

A client is prescribed a buccal medication. In which way should the nurse administer the

medication?

Place the medication between the cheek and gum.

Instruct the client to swallow the medication.

Apply the medication to clean, dry skin.

Insert the medication under the tongue.

Answer: 1

Explanation:

*Buccal* is the term used to describe a medication placed between the cheek and gum.

An oral medication is swallowed.

A transdermal medication is applied to the skin.

A sublingual medication is placed under the tongue.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A client is prescribed a liter of fluid intravenously to treat dehydration. Which amount of fluid should the nurse explain that the client will be receiving?

2 cups

1 quart

1/2 gallon

1000 mL

Answer: 2

Explanation:

Two cups are equivalent to one half of a quart.

The household measurement most nearly equivalent to 1 liter is 4 cups or 1 quart.

One half of a gallon is equivalent to two quarts or 2000 mL.

Although 1 liter is equivalent to 1000 mL, this response does not answer the client's question.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-6 Compare and contrast the three systems of measurement used in pharmacology.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse observes a student nurse prepare to administer an intradermal medication. Which observation indicates to the nurse that the student understands the correct procedure to administer the medication?

Injections should be limited to 1-2 mL.

Avoid sites with excess body hair.

Sites for administration include the upper and lower abdomen.

Medications should be injected into the epidermal skin layer.

Answer: 2

Explanation:

Intradermal injection involves administering small amounts (0.1-0.2 mL) of medication.

Usual sites of intradermal administration include nonhairy surfaces.

Usual sites of intradermal administration include the forearm, upper chest, and scapulae.

Intradermal injection involves administering small amounts of medication into the dermis skin layer.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Evaluation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse is caring for a group of clients. For which client should the nurse assess for medication nonadherence?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

A 70-year-old male client with hypertension who has a prescription for a diuretic and is complaining that the medication interrupts sleep

A 30-year-old college student who has a prescription for birth control pills and reports breakthrough bleeding this past cycle

A 45-year-old client with diabetes who has a prescription for insulin and whose blood sugar is within the normal range

A 57-year-old day laborer who has a prescription for anticholesterol medication and a prescription card for a free health clinic

An 18-year-old male with a prescription for an acne medication that must be taken four times a day

Answer: 1, 5

Explanation:

This client has been taking the diuretic in the evening instead of in the morning and is most likely experiencing increased urination at night that is disrupting sleep. Adverse side effects are common causes for nonadherence.

Birth control pills often cause midcycle bleeding. This does not raise any red flags for nonadherence.

The fact that this client's blood sugar is within the normal range may be evidence that the client is taking insulin as directed.

The means to pay for medication (free clinic prescription card) decreases the client's risk for nonadherence.

One of the most common reasons for nonadherence is forgetting a dose, particularly with drugs that must be taken more than twice a day.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.1 Elicit patient values, preferences, and expressed needs as part of clinical interview, implementation of care plan, and evaluation of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity, and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 3-4 Give specific examples of how nurses can increase patient adherence in taking medications.

MNL Learning Outcome: Examine the principles of drug administration.

A client is nervous about getting all medications while hospitalized because the healthcare provider designed a very "strict" schedule. Which principle of medication dosing schedules should the nurse consider for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The physical and biological characteristics of a drug may determine the dosing schedule.

Specific times may improve effectiveness and decrease risk of adverse effects.

Some drugs must be taken a certain time prior to an event or immediately after an event.

Dosing may be set for the convenience of client and nurse.

Hospitals have routine dosing intervals so that all clients receive medications at the same time each day.

Answer: 1, 2, 3, 4

Explanation:

The properties of a medication will determine how often it must be given to keep the drug at a therapeutic level in the body.

Some medications are administered at certain times of day to improve effectiveness or decrease adverse effects.

Some medications are taken to prevent or to cause an effect. For example, insulin should be given 30 minutes prior to eating to promote glucose usage.

If the drug does not have a characteristic that relies on a certain event to take place, then the drug can be given at the convenience of the client and/or nurse.

While most hospitals do have specific times of day (agency protocol) when medications are administered, this is not a principle that determines any specific dosing schedule.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.5

Develop a plan of care. | NLN Competencies: Quality and Safety: Current best practices. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 3-3 Explain how the five rights of drug administration affect patient safety.

MNL Learning Outcome: Examine the principles of drug administration.

A client who takes oral medications reports getting the same medications intravenously when hospitalized. Which information should the nurse include when discussing the advantages and disadvantages of oral medications?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The oral route is considered the second safest route, after the intradermal route.

Tablets that are scored may be crushed for easier swallowing.

Enteric-coated drugs are designed to dissolve in the stomach, not the small intestine.

A major disadvantage of oral medications is that the client must be conscious and able to swallow.

Enteric-coated drugs should be crushed to help facilitate dissolving by the stomach acid.

Answer: 2, 4

Explanation:

The oral route is considered the safest because the skin barrier is not compromised; if an overdose occurs, drugs remaining in the stomach can be evacuated with stomach contents.

The purpose of scoring a tablet is the greater ease of cutting the tablet in half or quarters. These same tablets may be crushed, if needed.

Some drugs irritate the stomach lining and are coated to prevent being dissolved in the stomach.

These drugs go on to the small intestine and are dissolved in the alkaline environment.

The fact that the client must be conscious and able to swallow is a major disadvantage of oral medications.

Enteric-coated drugs are designed specifically to bypass the stomach's acidic environment and continue to the alkaline environment of the small intestine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-8 Compare and contrast the advantages and disadvantages of each route of drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse instructs a client's partner on how to administer drugs and enteral feeding through a gastrostomy tube. Which statement indicates to the nurse that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"A gastrostomy tube is used when it will be needed for a long time.

"I will need to use liquid medications. If any of the medications are in pill form, I will use the pill crusher to crush them and mix them with water before putting them in the tube."

"This medication says it is enteric coated. I'm not supposed to crush this kind of medication. I will need to ask the physician to substitute another medication that is liquid or can be crushed."

"There's a big difference in how the drugs work in the body when they're taken orally and when they're administered through the tube."

"I have to be very careful to flush the tube after I put medication in it. If I don't, the tube could get clogged."

Answer: 1, 2, 3, 5

Explanation:

Nasogastric tubes are used for short-term care while gastrostomy tubes are placed in clients who will need long-term care.

Most healthcare providers order drugs in liquid form for clients with nasogastric and gastrostomy tubes. If a medication does not come in liquid form, the solid form will need to be crushed and mixed with water prior to administration unless there is a contraindication for crushing the medication.

Enteric-coated medications should not be crushed. To do so would expose the drug to the acid in the stomach when it is intended to bypass the stomach acid and be dissolved in the alkaline environment of the small intestine.

Drugs administered via gastrostomy tube are affected by the same physiological processes as those given orally.

While solid drugs may be crushed and dissolved in water prior to being administered, they tend to clog the tubes if they are not routinely flushed.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A client is prescribed a transdermal patch for pain control. Which principle should the nurse recall about the use of a transdermal patch?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

It should not be applied to areas of abrasion.

Transdermal medications undergo the first-pass effect in the liver.

Transdermal medications completely bypass digestive enzymes.

The actual dose received by the client from this pain patch may vary.

The rate of delivery and actual dose of medications given by the transdermal route can vary.

Answer: 1, 3, 4

Explanation:

Applying transdermal patches to skin that has abrasions may unintentionally increase the dose of the medication.

Transdermal medications avoid the first-pass effect.

Transdermal medications never come into contact with digestive enzymes but go straight into the bloodstream.

While transdermal patches do contain a specific amount of medication, the rate of delivery may vary for each client.

It is true that the rate of delivery and actual dose received can vary, but this route is an effective means of delivering many medications such as birth control medications and nitroglycerin for angina.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-8 Compare and contrast the advantages and disadvantages of each route of drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

Twenty minutes after receiving a dose of antibiotic, a client develops a red, itchy rash. Which action should the nurse take first?

Withhold the next dose of the medication.

Report the finding to the healthcare provider.

Place an allergy bracelet on the client.

Document the presence of the rash in the medical record.

Answer: 2

Explanation:

Giving another dose of the antibiotic is not indicated and could have a serious outcome.

The nurse should first discuss this finding with the healthcare provider as an allergy likely exists.

The nurse should place an allergy bracelet on the client. If it is determined that the rash is from some other etiology, the bracelet can be removed. However, this is not the first response by the nurse.

The nurse should always document the presence of an unexpected finding. However, this is not the first response by the nurse.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 3-2 Describe the roles and responsibilities of nurses regarding safe drug administration.

MNL Learning Outcome: Examine the principles of drug administration.

The nurse observes a student administer an intramuscular injection in the deltoid muscle. For which reason should the nurse intervene during the injection?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Locates the site by putting the heel of the hand on the greater trochanter.

Selects a 1-inch 23-gauge needle and 3 mL syringe.

Plans to administer 2 mL in a single injection.

Wipes the injection site with an antiseptic wipe.

Inserts the needle at a 45-degree angle with the skin.

Answer: 1, 3, 5

Explanation:

This describes the technique to locate the ventrogluteal site. The deltoid site is approximately three fingers below the acromion process and midline in the upper part of the arm.

A 1-inch 23-gauge needle and a 3 mL syringe are appropriate choices for an IM injection in the deltoid muscle.

IM injections into the deltoid muscle are limited in volume to 1 mL because of the small size of this muscle.

The skin should always be cleaned prior to an injection with an alcohol wipe.

When administering an intramuscular injection, the needle should be inserted at a 90-degree angle.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Evaluation

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

A charge nurse watches a nurse administer an intradermal injection. Which observation indicates the nurse uses the correct technique?

Selects a 1-inch, 23-gauge needle with a 3 mL syringe

Inserts the needle with the bevel down at a 10- to 15-degree angle.

Slowly injects the medication to form a small wheal or bleb.

Withdraws the needle and gently massages the injection site.

Answer: 3

Explanation:

A tuberculin or 1 mL syringe with a 3/8- to 5/8-inch, 26- to 27-gauge needle should be used to administer an intradermal injection.

The needle should be inserted bevel up at a 10- to 15-degree angle when administering an intradermal injection.

When administering an intradermal injection, the medication should be injected slowly to form a small wheal or bleb.

The injection site should never be massaged after administering an intradermal medication.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Quality and Safety: Current best practices. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 3-7 Explain the proper methods of administering enteral, topical, and parenteral drugs.

MNL Learning Outcome: Examine the principles of drug administration.

At the end of the shift, a client reports drinking 4 cups of water during the day in addition to having an IV infusion at 125 mL/hour for 12 hours. Which amount of intake in mLs should the nurse document?

960 mL

1500 mL

2460 mL

3960 mL

Answer: 3

Explanation:

Each cup the client ingested should be counted as 240 mL, making 4 cups equivalent to 960 mL. The client also received 1500 mL of IV fluid, which should be included in the total documented in the client's chart.

1500 mL is the amount of IV fluid the client received. However, the 960 mL of the client's oral intake should also be included.

The client received 1500 mL of IV fluid in addition to the 960 mL of oral intake. The total intake is 2460 mL.

This is the amount the client would have received if the entire 24 hours of IV intake was included (3000 mL + 960 mL).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 8.4 Use information and communication technology to support documentation of care and communication among providers, patients, and all system levels. | NLN Competencies: Quality and Safety: Current best practices. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 3-6 Compare and contrast the three systems of measurement used in pharmacology.

MNL Learning Outcome: Examine the principles of drug administration.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 4 Pharmacokinetics**

The nurse teaches a client about the absorption of medication used to treat hypertension. Which client statement indicates to the nurse that teaching was effective?

"I can safely take the drug for at least 6 months beyond the expiration date."

"I don't need to worry about storage of the drug; it won't lose potency."

"I should not take my medications with milk or dairy products."

"I need to be careful about taking the medication with certain foods."

Answer: 4

Explanation:

Clients should be instructed to avoid taking medications beyond the expiration date.

Storage can affect the medication's strength and may affect how it responds in the body.

There are many more foods that will alter the absorption of medications other than milk and dairy products.

Food can alter the absorption of many medications.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies  
Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 4-4 Discuss factors affecting drug absorption.  
MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client prescribed a loading dose to be followed by a lower maintenance dose asks why the maintenance dose is lower. Which response should the nurse make?

"The initial dose shortens the half-life, so the medication would work more quickly."

"We always give medications this way; the healthcare provider did not make a mistake."

"You had a larger dose initially so that the medication would work more quickly."

"Giving a larger dose initially will reduce the chance of side effects."

Answer: 3

Explanation:

Loading doses do not shorten the half-life of a drug.

Not all medications are initiated with a loading dose.

Loading doses of medications are used to quickly induce a therapeutic response.

Loading doses do not reduce the occurrence of side effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-12 Differentiate between loading and maintenance doses.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is caring for a client with meningitis. For which reason should the nurse expect the client to be prescribed a lipid-soluble medication instead of a water-soluble medication?

Lipid-soluble drugs are better because of protein binding.

Lipid-soluble drugs are more effective in treating the client's illness.

Lipid-soluble drugs are better because they have fewer side effects.

Lipid-soluble drugs are more effective because they are excreted at a slower rate.

Answer: 2

Explanation:

Not all lipid-soluble drugs are protein bound.

Drug molecules that are lipid soluble will usually pass through plasma membranes by simple diffusion and more easily reach their target cells. The client has meningitis, so a drug that can cross the blood brain barrier will be more effective.

Lipid-soluble drugs do not necessarily have fewer side effects.

Lipid solubility does not affect drug excretion.

Page Ref: 40

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-4 Discuss factors affecting drug absorption.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client with a low serum albumin level is prescribed aspirin. Which effect should the nurse expect to occur in this client?

Risk of experiencing a decreased effectiveness of the drug.

Risk of experiencing toxic effects of the drug.

Kidneys will excrete the drug at a faster rate.

Liver will metabolize the drug at a faster rate.

Answer: 2

Explanation:

Effects from the drug will not be decreased because there is less protein for aspirin to bind with and more free drug available.

Aspirin is a protein-bound drug. With a low albumin, there is less protein for aspirin to bind with, making more free drug available. There may be toxic effects from the drug because there is less protein for aspirin to bind with and more free drug available.

The kidney will not be able to balance the amount of the drug and excrete it at a faster rate.

The liver will not be able to metabolize the drug at a faster rate.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-7 Describe how plasma proteins affect drug distribution.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client in chronic renal failure is prescribed several drugs. In which way should the nurse anticipate the client's response to the medications?

The liver may compensate for renal failure so the drugs may be effective.

Drug toxicity may occur from all the drugs.

Drug toxicity may occur only if the drugs are excreted by the kidneys.

There may be decreased effectiveness of the drugs.

Answer: 2

Explanation:

The liver cannot compensate for renal failure; the client is at risk for drug toxicity.

Since the kidneys are the primary route of excretion for many drugs, chronic renal failure puts the client at risk for drug toxicity.

The client in chronic renal failure will more likely have drug toxicity than decreased effectiveness of the drugs.

Since the majority of drugs are excreted by the kidneys, the client will most likely have drug toxicity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-8 Identify major processes by which drugs are excreted.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client comes to the emergency department following an overdose of aspirin. Which treatment should the nurse expect to be prescribed for this client?

Intravenous fluids to flush the kidneys

Ammonium chloride to increase metabolism in the liver

Sodium bicarbonate to alter the client's serum pH

Intravenous proteins to bind the aspirin

Answer: 3

Explanation:

Administering intravenous fluids will not increase the excretion of aspirin from the body.

Ammonium chloride will acidify the urine and cause reabsorption of the aspirin. It does not increase metabolism of the drug.

Sodium bicarbonate will alkalinize the urine and increase the excretion of aspirin from the body.

Administering proteins will not help with the excretion of aspirin from the body.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing

and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-7 Describe how plasma proteins affect drug distribution.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A healthcare provider prescribes aspirin to a client complaining of a severe headache. In which way should the nurse give the client the medication to relieve the headache faster?

With an alkaline food

In an enteric-coated formulation

With a high-fat food

On an empty stomach

Answer: 4

Explanation:

An alkaline food will slow absorption and increase the time for the drug's effect.

Administering the aspirin in an enteric-coated formulation will lessen gastrointestinal irritation but will increase the time for the drug's effect.

A high-fat food will slow absorption and increase the time for the drug's effect.

Acids such as aspirin are best absorbed in the acidic environment of the stomach, so the aspirin should be administered on an empty stomach.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-4 Discuss factors affecting drug absorption.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client taking lithium (Eskalith) asks why blood has to be drawn so often. Which response should the nurse make?

"Detect side effects before they become a problem."

"Ensure the medication is working properly."

"Determine if the body is responding as it should."

"Check for the correct amount of medication in the body."

Answer: 4

Explanation:

Side effects are best determined by client assessment.

A laboratory test will not confirm that the medication is working properly.

Body response to the medication is best determined by client assessment.

Medications with a narrow therapeutic range, such as lithium (Eskalith), must be monitored with laboratory tests; this is how the correct dosage is determined.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-11 Explain how a drug reaches and maintains its therapeutic range in the plasma.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client who is breastfeeding asks if St. John's wort can be taken for mild depression. Which response should the nurse make?

"No, it will probably cause the baby to have allergies."

"No, because it might decrease the amount of milk produced."

"No, it could be excreted in the milk and affect the baby."

"No, it will affect the taste of the milk, and the baby might reject nursing."

Answer: 3

Explanation:

Taking St. John's wort is not likely to cause the baby to have allergies.

Taking St. John's wort is not likely to decrease the amount of milk the client produces.

Many drugs are excreted in breast milk and can affect the nursing infant.

Taking St. John's wort may affect the taste of the client's milk, but this is not the most important response.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-8 Identify major processes by which drugs are excreted.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nursing instructor teaches pharmacology to student nurses. Which components of pharmacokinetics will the instructor include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

How drugs move from the site of administration to circulating fluids

How drugs are converted to a form that is easily removed from the body

How drugs change body illnesses and pathogens

How drugs are transported throughout the body

How drugs are removed from the body

Answer: 1, 2, 4, 5

Explanation:

Absorption describes how drugs move from the site of administration to circulating fluids.

Metabolism describes how drugs are converted to a form that is easily removed from the body.

Pharmacodynamics describes how drugs change body illnesses and pathogens.

Distribution describes how drugs are transported throughout the body.

Excretion describes how drugs are removed from the body.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-2 Identify the four components of pharmacokinetics.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is prescribed a medication that is an enzyme inducer of the P450 system. Which response should the nurse expect in the client from this medication?

No effect from other medications

Increased effects from other medications

A reduced effect from this medication

Increased effect from this medication

Answer: 3

Explanation:

The client will experience a reduced effect from other medications, not an absence of effect.

An enzyme inhibitor will result in a decreased effect from other medications.

An enzyme inducer will increase the rate of its own metabolism, thereby reducing its effectiveness.

An enzyme inhibitor will result in an increased effect of this medication.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 4-5 Explain the metabolism of drugs and its applications to pharmacotherapy.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is on many medications and asks how they all get to the right places. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"It depends on how much protein you have in your body."

"It depends on the health of your kidneys."

"It depends on whether they are fat based or water based."

"It depends on the amount of blood flow to your body tissues."

"It depends on the health of your liver."

Answer: 1, 3, 4

Explanation:

Distribution of drugs depends on protein binding.

The health of the kidneys refers to excretion, not distribution.

Distribution of drugs depends on the lipid solubility of the drug.

Distribution of drugs depends on the amount of blood flow to body tissues.

The health of the liver refers to metabolism, not distribution.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing

and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-6 Discuss how drugs are distributed throughout the body.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is receiving a drug that is excreted in bile. Which outcome should the nurse expect this medication to have on the client?

Prolonged action of the drug

Increased side effects

Decreased side effects

Decreased effects of the drug

Answer: 1

Explanation:

Most bile is circulated back to the liver so drugs secreted into bile will be recirculated numerous times with the bile, resulting in a prolonged action of the drug.

Side effects may or may not be increased; this is dose dependent.

Bile-excreted drugs do not decrease side effects.

Bile-excreted drugs do not decrease effects of the drug.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing

and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 4-9 Explain how enterohepatic recirculation might affect drug activity.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is preparing medications for a client. Which route should the nurse recognize that requires higher drug doses to achieve a therapeutic effect?

Intravenous route

Oral route

Rectal route

Sublingual route

Answer: 2

Explanation:

Intravenously administered drugs are not affected by the "first-pass effect."

Oral medications pass into the hepatoportal circulation and may be completely metabolized before reaching the general circulation. This so-called "first-pass effect" may necessitate the use of higher dosages of oral medications to achieve a therapeutic effect.

Rectally administered drugs are not affected by the "first-pass effect."

Sublingually administered drugs are not affected by the "first-pass effect."

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-5 Explain the metabolism of drugs and its applications to pharmacotherapy.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse explains enzymatic activity that changes a medication to a less active form. On which pharmacologic concept is the nurse focusing?

Pharmacodynamics

Active transport

Pharmacokinetics

Diffusion

Answer: 3

Explanation:

Pharmacodynamics involves how drugs change the body.

Active transport is the movement of a chemical against concentration or gradient.

Pharmacokinetics describes how drugs are handled within the body.

Diffusion is the movement of a chemical from an area of higher concentration to an area of lower concentration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 4-1 Explain the applications of pharmacokinetics to clinical practice.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is asked about the categories of pharmacokinetics. Which response should the nurse make?

Diffusion

Ingestion

Absorption

Movement

Answer: 3

Explanation:

Diffusion is not one of the four categories of pharmacokinetics.

Ingestion is not one of the four categories of pharmacokinetics.

Absorption is one of the categories of pharmacokinetics. The other categories are distribution, metabolism, and excretion.

Ingestion is not one the four categories of pharmacokinetics.

Page Ref: 40

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing

and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-2 Identify the four components of pharmacokinetics.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is prescribed a medication that after ingestion, the drug crosses a membrane from an area of higher concentration to an area of lower concentration. Which term should the nurse use to explain this process?

Active transport

Osmosis

Diffusion

Metabolism

Answer: 3

Explanation:

Active transport is the movement of a chemical against concentration or gradient.

Osmosis involves the movement of water.

Diffusion is the movement of a chemical from an area of higher concentration to an area of lower concentration.

Metabolism involves chemical conversion.

Page Ref: 40

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-3 Explain how substances travel across plasma membranes.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is prescribed aspirin. Which outcome should the nurse expect about the absorption of aspirin in the small intestine?

Absorption is decreased.

Absorption is increased.

Ionization has nothing to do with the absorption rate.

Aspirin must travel past the small intestine for absorption to occur.

Answer: 1

Explanation:

The small intestine is a more alkaline environment. Aspirin is an acidic drug that is ionized in the small intestine and will have lower absorption rates.

Higher rates of absorption occur in the stomach (an acidic environment).

Ionization state affects absorption rate.

Absorption of aspirin occurs in the stomach.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 4-4 Discuss factors affecting drug absorption.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is asked how medications are distributed within the body. Which response should the nurse make?

"The blood—brain barrier inhibits rapid crossing of all medications."

"Body organs with high levels of blood flow are more difficult organs to which to deliver drugs."

"Medications that are lipid-soluble are more completely distributed."

"Drug—protein complexes must form prior to crossing capillary membranes."

Answer: 3

Explanation:

Some medications (sedatives) are able to rapidly cross the blood—brain barrier.

Body organs with low levels of blood flow are more difficult organs to deliver drugs.

Lipid-soluble medications are absorbed and distributed more quickly than those that are not.

When medications bind to proteins, their size increases, preventing them from passing through capillary membranes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-6 Discuss how drugs are distributed throughout the body.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is asked about the first-pass effect. Which organ should the nurse explain is responsible for this action?

Bladder

Kidneys

Liver

Stomach

Answer: 3

Explanation:

The bladder is not the organ most responsible for the first-pass effect.

The kidneys are not the organs most responsible for the first-pass effect.

The first-pass effect occurs in the liver.

The stomach is not the organ most responsible for the first-pass effect.

Page Ref: 44

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-9 Explain how enterohepatic recirculation might affect drug activity.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is preparing medications for a client. Which substance should the nurse recall that has the lowest rate of crossing renal tubular membranes and be excreted in the urine?

Lipid-soluble drugs

Volatile drugs

Ionized drugs

Nonionized drugs

Answer: 3

Explanation:

Lipid-soluble drugs cross renal tubular membranes easily and return to the circulation.

Volatile drugs are eliminated through respiration.

Ionized and water-soluble drugs are less likely to cross renal tubular walls and will therefore be excreted.

Nonionized drugs cross the renal tubular membranes easily and return to circulation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Analysis

Learning Outcome: 4-8 Identify major processes by which drugs are excreted.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is reviewing the excretion of medications. Which information should the nurse identify that explains medications being excreted in bile?

All medications secreted in bile are excreted in the feces.

Some medications are excreted in the feces while others can be recirculated to the liver many times.

Most medications secreted in bile are metabolized in the gallbladder.

Generally, medications are not secreted in bile.

Answer: 2

Explanation:

Some bile (and medications within) is excreted in the feces.

Most bile is circulated back to the liver by enterohepatic circulation, where medications are metabolized in the liver.

Medications are not metabolized in the gallbladder.

Some medications are secreted in bile.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 4-9 Explain how enterohepatic recirculation might affect drug activity.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is caring for a client receiving several medications. Which assessment finding indicates to the nurse that the medication has achieved a therapeutic range?

No serious adverse effects are experienced following administration.

The indication for administration was achieved without serious side effects.

A prespecified amount (in mL) was administered.

The medication was effective, but the patient experienced a lethal dysrhythmia.

Answer: 2

Explanation:

Lack of serious adverse effects does not indicate therapeutic range has been reached.

The therapeutic range of a drug is between the minimum effective concentration and the toxic concentration.

Standard doses of medications are determined by expected therapeutic range, not vice versa.

Effective medication is desired, but not at the expense of a lethal dysrhythmia.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 4-11 Explain how a drug reaches and maintains its therapeutic range in the plasma.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is teaching a client the importance of taking the medication as prescribed. Which principles of pharmacokinetics should the nurse emphasize with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

A medication taken by injection must cross the membranes of the gastrointestinal tract to get to the bloodstream before it can be distributed throughout the body.

A drug may be exposed to several physiological processes while en route to target cells.

Liver enzymes may chemically change the drug.

Excretion organs such as kidneys and intestines must be healthy enough to eliminate the drug.

Many processes to which drugs are exposed are destructive, thereby helping facilitate the drug's movement throughout the body.

Answer: 2, 3, 4, 5

Explanation:

Medications taken by mouth must cross the membranes of the gastrointestinal tract to get to the bloodstream in order to be distributed throughout the body. This is not the case for medications administered by injection.

Drugs taken orally are often exposed to physiological processes such as stomach acid and digestive enzymes.

Enzymes in the liver may chemically change some drugs.

Drugs will continue to act on the body until they are either metabolized to an inactive form or are excreted. Pathologic states such as kidney disease can increase the drug's action on the body.

Many destructive processes, such as when stomach acid breaks down food, can break down the drug molecule before it can reach the target cells. This will facilitate the drug's movement throughout the body.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-1 Explain the applications of pharmacokinetics to clinical practice.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse reviews the role of diffusion in the distribution of medications with a nursing student. Which substance that can be distributed by simple diffusion should the nurse explain? *Note: Credit will be given only if all correct choices and no incorrect choices are selected.* Select all that apply.

Large molecules

Ionization

Water-soluble agents

Alcohol

Urea

Answer: 4, 5

Explanation:

Large molecules have difficulty crossing plasma membranes by simple diffusion.

Ionized drugs have difficulty crossing plasma membranes by simple diffusion. These drugs may require carrier, or transport, proteins to cross membranes.

Water-soluble agents have difficulty crossing plasma membranes by simple diffusion.

Diffusion assumes that the chemical is able to freely cross the plasma membrane. Drugs may also enter through open channels in the plasma membrane; however, the molecule must be very small, such as alcohol.

Diffusion assumes that the chemical is able to freely cross the plasma membrane. Drugs may also enter through open channels in the plasma membrane; however, the molecule must be very small, such as urea.

Page Ref: 40

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-3 Explain how substances travel across plasma membranes.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client taking an oral medication to treat hives asks how long it will take before the itching stops. Which concept should the nurse consider in the response to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The amount of time between administration and the drug taking effect is known as onset of action.

Peak plasma levels rarely occur with oral medications.

Duration of action is the amount of time a drug is effective.

Peak plasma level is dependent on the drug's plasma half-life ( $t_{1/2}$ ).

Drugs with short half-lives are ineffective in treating systemic illnesses.

Answer: 1, 3

Explanation:

Onset of drug action represents the amount of time it takes to produce a therapeutic effect after drug administration.

All medications have a peak plasma level.

Duration of drug action is the amount of time a drug maintains its therapeutic effect.

Peak plasma level and plasma half-life ( $t_{1/2}$ ) are related but not strictly dependent on one another.

The effectiveness of a drug is not dependent on half-life as long as dosing frequency is correct.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-10 Explain the applications of a drug's onset, peak, and plasma half-life ( $t_{1/2}$ ) to duration of pharmacotherapy.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

Prior to administering a newly prescribed antibiotic, the nurse asks if the client has taken any other drugs today. Which response should the nurse make when the client is hesitant to respond?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I need to be certain you are not taking another antibiotic."

"Some drugs block the action of other drugs."

"Some drugs increase the activity of other drugs."

"The antibiotic I am about to give you is a prodrug."

"We don't want to increase the first-pass effect."

Answer: 2, 3

Explanation:

There are many instances when a patient is prescribed more than one antibiotic at a time.

Some drug—drug interactions are antagonistic, blocking or opposing the effects of the drugs taken.

Some drug—drug interactions are synergistic, resulting in a potentiated effect.

Prodrugs have no pharmacologic activity unless they are first metabolized to their active form by the body. This is not dependent on whether or not other drugs are present in the system.

This question has nothing to do with the first-pass effect.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-6 Discuss how drugs are distributed throughout the body.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

The nurse is asked to explain the ways drugs are excreted from the body. Which route should the nurse identify in response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Fecal

Gastric

Glandular

Pulmonary

Renal

Answer: 1, 3, 4, 5

Explanation:

Drugs can be excreted via feces.

Drugs are not excreted through the gastric system.

Drugs can be secreted through glandular activity.

Drugs can be secreted via the lungs.

Drugs can be excreted by the renal route.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-8 Identify major processes by which drugs are excreted.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client is prescribed a medication that is secreted through glandular activity. Which body secretion should the nurse explain will be affected by this excretion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Saliva

Sweat

Breast milk

Urine

Feces

Answer: 1, 2, 3

Explanation:

Water-soluble drugs may be secreted into the saliva, which can cause a "funny taste" after the administration of a medication.

Water-soluble drugs may be secreted into the sweat, which may cause an odor to be emitted by the person who has taken a medication.

Water-soluble drugs may be secreted into the breast milk. Breastfeeding clients must use caution in regard to medications while lactating as the medications can be passed to the infant via the breast milk.

Urine is excreted by the kidneys and does not play a role in glandular activity.

Feces are excreted by the gastrointestinal system and do not play a role in glandular activity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Implementation

Learning Outcome: 4-8 Identify major processes by which drugs are excreted.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

A client asks why a large dose of a drug was administered first followed by a lower dose of the same drug later. Which response should the nurse make?

Prevents a toxic concentration of the drug

Achieves a therapeutic dose more quickly

Decreases the side effects of this drug

Increases the absorption rate of this drug

Answer: 2

Explanation:

Administering a loading dose will not prevent a toxic concentration of the drug.

Administering a loading dose of a drug helps to achieve a therapeutic response to a drug more quickly.

Administering a loading dose will not decrease the side effects of the drug.

Administering a loading dose will increase the absorption rate of a drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing

and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 4-12 Differentiate between loading and maintenance doses.

MNL Learning Outcome: Examine the processes involved in pharmacokinetics and therapeutic response.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 5 Pharmacodynamics**

A client looks up a prescribed drug and asks why it was being given because it has a lethal dose measure. Which response should the nurse make?

"It just refers to what is done in research; it is not used by healthcare providers prescribing drugs."

"It is a value determined during research, which helps to determine the safe dose to give."

"All that means is that the drug could be lethal, but I will watch you for side effects."

"Don't worry about that, I'll have your healthcare provider explain it to you."

Answer: 2

Explanation:

The lethal dose measure is used by healthcare providers prescribing drugs.

The difference between a median effective dose and a median lethal dose is a measure of a drug's safety margin, which helps determine the safest dose to give.

Telling a client that the drug could be lethal, but that they will be observed for side effects, will frighten the client and most likely result in the refusal of the medication.

Telling a client not to worry is nontherapeutic; this is a condescending response.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD50), and median toxicity dose (TD50).  
MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse reviews the drug guide before giving a medication to the client. Which information should the nurse identify that explains the therapeutic index?

The best drug was prescribed for the client.

A safe dose was prescribed for the client.

Drug interactions are described.

Serum blood levels will need to be monitored.

Answer: 4

Explanation:

The therapeutic index will not help to determine if the physician prescribed the best drug for the client.

The therapeutic index will give some information about safe doses, but this is not the most complete response.

The therapeutic index will not help to identify interactions among the drugs the patient receives. Drugs with a narrow therapeutic index have a low safety margin and the concentration of the drug should be monitored by regular serum tests.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD50), and median toxicity dose (TD50).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse prepares teaching about how median effective doses of medications are related to clinical practice. Which information will the nurse emphasize during this teaching?

About 50% of clients will experience severe side effects from the drug.

Some clients will respond differently depending on their racial-ethnic background.

About 50% of clients will not experience any effect from the drug.

Some clients will require more or less than the average dose of the drug.

Answer: 4

Explanation:

The mean effective dose does not predict how many clients will experience severe side effects from the drug.

The mean effective dose is not related to race/ethnicity.

The mean effective dose does not predict that 50% of clients will not experience any effect of the drug.

The mean effective dose predicts how 50% of the population will respond to the average dose of the drug. Some clients will require more or less of the drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Teaching/Learning; Planning

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client receiving an antibiotic requests more medication be given to heal an infection faster. Which response should the nurse make?

"I will check with the healthcare provider to see if it is time to increase the medication."

"You are at a maximum dose; taking more will cause interactions with other medications."

"You must stay on this drug for 2 more weeks before it can be increased."

"You are at a maximum dose; taking more will not help."

Answer: 4

Explanation:

Telling the client the nurse will check with the healthcare provider is inappropriate because the plateau of the drug has been reached; the healthcare provider will not change the dosage.

An increase in dosage may cause interactions with other medications, but this is not the best answer.

Once the plateau of a drug has been reached, there is no time frame for an increase in dosage because an increase in dosage will not produce a greater effect.

When the plateau of a drug has been reached, administering more of the drug will not produce additional benefit.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse prepares a narcotic for a client recovering from surgery. Which information should the nurse recall about the potency of different narcotics?

Codeine is less potent than morphine; it will not produce an allergic reaction.

Morphine is more potent than codeine; a lesser dose will be required.

Morphine is more potent than codeine; it will produce more adverse effects.

Codeine is less potent than morphine; it will not relieve pain as well.

Answer: 2

Explanation:

The potency of a drug is not related to its ability to cause an allergic reaction.

A drug that is more potent will produce a therapeutic effect at a lower dose.

Potency does not mean the drug will produce more adverse effects.

Less potent narcotics can be very effective with pain relief.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other

disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Assessment

Learning Outcome: 5-4 Compare and contrast the terms potency and efficacy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client is learning the difference between potency and efficacy of medications. Which client statement should indicate to the nurse that teaching was effective?

"The best drug for me is the one with the highest potency."

"The best drug for me is the one with the greatest efficacy."

"Drugs with the greatest efficacy will produce the least side effects."

"Low-potency drugs have efficacy and do not produce side effects."

Answer: 2

Explanation:

Potency refers to the dose of the drug; high-potency drugs do not necessarily provide the best response in the client.

Efficacy means the magnitude of maximal response that can be produced from a particular drug.

Efficacious drugs do produce side effects.

Low-potency drugs do produce side effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Evaluation

Learning Outcome: 5-4 Compare and contrast the terms potency and efficacy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client with hypertension is prescribed a new medication that is reported to be more effective than previously prescribed medications. Which response should the nurse make when the client asks why the new drug is more effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Newer drugs are altered to affect your cells' receptors in a different way."

"Receptors tend to 'burn out,' so newer drugs are required."

"Research into receptors helps 'fine-tune' drugs to be more effective."

"Changing the response of the drug to protein—receptor complexes produces fewer side effects."

"It is a process of trial and error with receptors until the new drug proves effective."

Answer: 1, 3

Explanation:

Receptor research results in the development of new medications that activate very specific receptors to produce a greater therapeutic response as well as fewer side effects.

Receptors do not "burn out."

Research into receptors has resulted in the "fine-tuning" of medications that are more effective with fewer side effects.

There is no such thing as a protein—receptor complex.

Research is not a process of trial and error with receptors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-5 Explain the relationship between receptors and drug action.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is reviewing new medications prescribed for a client. Which factor should the nurse identify that is used to help predict the safety of the doses?

Potency

Efficacy

Graded dose—response

Frequency distribution curve

Answer: 4

Explanation:

Potency is a means to compare medications within therapeutic and pharmacologic classes.

The efficacy of a drug is the magnitude of maximal response that can be produced from a particular drug.

The graded dose—response is used to compare the client's response of different dosages of the drug.

A frequency distribution curve is a graphical representation of the number of clients responding to a drug action at different doses and can be used to help predict the safety of a dose of a drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-1 Define pharmacodynamics and discuss how frequency distribution curves may be used to explain how patients respond differently to medications.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client and partner are taking the same drug but have different doses. Which response should the nurse make when asked why the doses are different?

"Females have a higher metabolism, and more medication is needed."

"Everyone is unique and responds differently to medications."

"Hormones influence the amount of medication that is needed."

"Females have a greater percentage of body fat, so more medication is needed."

Answer: 2

Explanation:

Females do not necessarily have higher metabolic rates than males.

Many variables will influence how clients will respond to medications; each client must be individually evaluated for response to medications.

Hormone status is only one of the variables involved in the client's response to medications and may not pertain to this drug.

The percentage of body fat is only one of the variables involved in the client's response to medications and may not pertain to this medication.

Page Ref: 52

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-1 Define pharmacodynamics and discuss how frequency distribution curves may be used to explain how patients respond differently to medications.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is asked about the purpose of the Human Genome Project. Which response should the nurse make?

"We will be able to alter genes so we will not need drugs."

"We will be able to standardize drug doses to make prescribing easier."

"It will help prevent disease through gene manipulation but will not impact drugs."

"It will help to individualize drug therapy for people in a more effective way."

Answer: 4

Explanation:

Altering genes to prevent illness is a possibility, but we will always need medications.

Individuals will still respond differently to medications; not all drugs will have standardized doses.

Medications will be very much impacted by this research.

The goal of pharmacogenetics is to help individualize drug therapy for people in a more effective way.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-7 Explain how advances in pharmacogenetics may be used to customize drug therapy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

During a home visit, the nurse learns that an older client is taking twice the prescribed dose of pain medication. Which outcome should the nurse expect from the client's action?

Develops tolerance and does not experience any difference.

Experiences more pain relief from the additional dose.

Develops tolerance and will need increased doses of the drug.

Exhibits side effects from the additional dose.

Answer: 4

Explanation:

Tolerance may occur but is not the primary issue here.

Once the plateau of a drug has been reached, increased doses will not provide added therapeutic benefit, such as more pain relief.

Tolerance may occur but is not the primary issue here.

Once the plateau of a drug has been reached, increasing the dose may produce adverse effects.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client receiving haloperidol (Haldol), a dopamine antagonist, is switched to aripiprazole (Abilify), a partial dopamine antagonist. Which outcome should the nurse expect from this change in medication?

The client is more compliant in taking the medication.

The client experiences greater efficacy.

The client experiences a greater reduction in symptoms.

The client experiences fewer side effects.

Answer: 4

Explanation:

The client will not necessarily be more compliant in taking the medicine.

The client will not necessarily experience greater efficacy.

Experiencing a greater reduction in symptoms is the same as greater efficacy.

Partial blocking of dopamine results in fewer side effects than complete blocking of dopamine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 5-6 Distinguish among an agonist, a partial agonist, and an antagonist.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is asked why drug plateaus occur with medications. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"It could be that all of the receptors for the drug are occupied."

"It may mean that the drug has brought 100% relief to the patient."

"It means that the patient has developed resistance and needs another drug."

"It probably means that the drug is losing efficacy."

"It means that the patient needs a higher dose of the drug."

Answer: 1, 2

Explanation:

Drug plateaus occur with medications because all the receptors for the drug are occupied.

Drug plateaus occur with medications when the drug has brought 100% relief to the patient.

Drug plateaus are not associated with resistance.

A drug plateau is not related to efficacy of the drug.

When a drug has reached its plateau, giving additional amounts will not result in an increased therapeutic effect.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse provides a client with a median effective dose of the medication. Which effect should the nurse expect to assess in the client?

Produce an effect without the presence of adverse effects.

Metabolize within 24 hours.

Be effective in half of the population.

Be effective in the majority of clients.

Answer: 3

Explanation:

The median effective dose may result in toxicity in some clients.

Rate of metabolism is not a specific factor in determining median effective dose.

The median effective dose is the amount of a drug that produces an effect in 50% of a group of clients.

Median does not refer to a value in excess of 50%.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other

disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Assessment

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

Drug X has a median lethal dose of 30 mg and a median effective dose of 10. Drug Y has a therapeutic index of 4, while drug Z has a therapeutic index of 3. Which statement is accurate based on this information?

Drugs X and Y are safer than drug Z.

The therapeutic index of drug X is 20.

Drug Y is the safest of the three.

Drug Z is the safest of the three.

Answer: 3

Explanation:

Drugs X and Z have the same therapeutic index and are more dangerous than drug Y.

The therapeutic index of drug X is  $30/10$  or 3.

Since drug Y has the highest therapeutic index, it is the safest drug.

Drugs X and Z have the same therapeutic index and are more dangerous than drug Y.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 1.1

Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD<sub>50</sub>), and median toxicity dose (TD<sub>50</sub>).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client has been receiving 60 mg of a medication. Which outcome should the nurse expect when the median toxic dose of the drug is 50 mg?

It is likely the drug will not produce the desired effect.

The efficacy and potency of this drug have not been well defined.

The client will be at greater risk of adverse effects.

This amount of drug would have been lethal to half the population.

Answer: 3

Explanation:

This information is insufficient to predict if the drug will produce the desired effect.

The median toxicity dose is not a measure of efficacy and potency.

Since the dose exceeds the median toxicity for this drug, the client is at greater risk of developing adverse effects.

Median toxicity dose has to do with development of toxicity, not lethality.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Evaluation

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD50), and median toxicity dose (TD50).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse notes that a graded dose—response curve is included in the insert of a medication. In which way should the nurse use this information?

Determine response intensity within an individual.

Understand response intensity within a large group of people with different characteristics.

Predict response intensity within a large group of people with similar characteristics.

Expect a response intensity within a small group of people with similar characteristics.

Answer: 1

Explanation:

Graded dose—response curves are used to determine response intensity within an individual.

Frequency distribution curves are used to visualize client characteristics in response to medication in a population.

Frequency distribution curves are used to visualize client similarities in response to medication in a population.

Frequency distribution curves are used to visualize client differences in response to medication in a population.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 5-3 Explain the significance of the graded dose-response relationship to nursing practice.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

At a dose of 10 mg, drug X lowers total cholesterol by 50 mg/dL, while a maximum drop in cholesterol of 65 mg/dL is achieved at 40 mg. At a dose of 5 mg, drug Y lowers cholesterol by 50 mg/dL, while a maximum drop in cholesterol of 55 mg/dL is achieved at 10 mg. Which conclusion should the nurse make about the efficacy and potency of these two drugs?

Drug X is more potent, and drug Y has a higher efficacy.

Drug X is more potent and has higher efficacy.

Drug Y is more potent and has higher efficacy.

Drug Y is more potent, and drug X has a higher efficacy.

Answer: 4

Explanation:

Drug X is not more potent; drug Y does not have higher efficacy.

Drug X is not more potent.

Drug Y does not have higher efficacy.

Drug Y causes a greater drop in cholesterol at lower doses (higher potency), whereas drug X causes the highest drop in total cholesterol (efficacy).

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 5-4 Compare and contrast the terms potency and efficacy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client is prescribed a drug to decrease the effects of an endogenous chemical. In which category should the nurse place this drug?

An agonist

A partial agonist

An antagonist

An agonist-antagonist

Answer: 3

Explanation:

An agonist drug produces the same type of response as the endogenous substance.

A partial agonist produces a weaker, or less efficacious, response than an agonist.

An antagonist occupies receptor sites, preventing them from being activated by the medication.

This prevents the endogenous chemical from acting.

An agonist-antagonist produces a weaker, or less efficacious, response than an agonist.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-6 Distinguish among an agonist, a partial agonist, and an antagonist.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is asked to explain pharmacogenetics. Which response should the nurse make?

It will customize drugs and prevent idiosyncratic responses.

It will be used to reduce the overall number of drugs and their associated adverse effects.

Medication errors will be reduced in the selection of optimal drug choices.

It will provide cost-effective pharmacotherapy and higher drug efficacy.

Answer: 1

Explanation:

Pharmacogenetics explores the role of heredity in drug response. It might be useful to customize drugs based on genetic makeup and reduce idiosyncratic responses.

Reducing the number of drugs might occur but is not the best descriptive statement.

Pharmacogenetics will not reduce medication errors.

Currently, increased cost is a deterrent.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-7 Explain how advances in pharmacogenetics may be used to customize drug therapy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

From a transcription error, a client received an overdose of a prescribed medication. If the therapeutic index of the medication is 10 and the median effective dose is 2, the nurse would calculate as the median lethal dose for the medication as \_\_\_\_\_. Record your answer rounding to the nearest whole number.

Answer: 20

Explanation:  $10 = x/2$ ; solving for  $x$ , the median lethal dose would be 20.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD50), and median toxicity dose (TD50).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is participating in the clinical trial of a new medication for the treatment of hypertension. To assess the effectiveness of the medication, which assessment would the nurse perform to help determine whether the average dose is effective for the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Blood pressure

Heart rate

Laboratory values

Diet

Sleep habits

Answer: 1, 2, 3

Explanation:

By monitoring the client's blood pressure, the nurse helps to determine whether the average dose is effective for the client.

By monitoring the client's heart rate, the nurse helps to determine whether the average dose is effective for the client.

By interpreting any associated laboratory data, the nurse helps to determine whether the average dose is effective for the client.

Monitoring the client's diet will not help determine if the average dose of a medication is effective for the client.

Monitoring the client's sleep habits will not help determine if the average dose of a medication is effective for the client.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.B.1 Participate effectively in appropriate data collection and other research activities. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-1 Define pharmacodynamics and discuss how frequency distribution curves may be used to explain how patients respond differently to medications.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is asked to explain the median lethal dose of a drug. For which reason should the nurse explain that this dose is often determined in preclinical trials?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

It would be unethical to determine these values in human subjects.

The safety of the medication must be determined prior to clinical trials.

It is difficult to obtain sufficient participants for clinical trials.

Clinical trials determine only the effective dose of a drug.

It is too costly to conduct the studies during clinical trials.

Answer: 1, 2

Explanation:

Laboratory animals are used in clinical trials to determine the LD<sub>50</sub>, or the dose that kills 50% of the subjects. It would be unethical to kill human subjects.

Before a drug is released for trials in human subjects, its safety must be determined.

It can be challenging to obtain sufficient subjects at times, but this is not the reason for doing lethal studies during preclinical trials.

Clinical trials determine not only the effectiveness of a drug but also its adverse and toxic effects.

The cost of the trials is the reason they are conducted with animal subjects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD<sub>50</sub>), and median toxicity dose (TD<sub>50</sub>).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is preparing to administer a medication to a client on a medical-surgical unit. The median lethal dose of the drug is 40 mg, and the median effective dose is 10 mg. The nurse calculates the therapeutic index to be \_\_\_\_\_. Record your answer rounding to the nearest whole number.

Answer: 4

Explanation: The therapeutic index is calculated by dividing the median lethal dose by the median effective dose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD50), and median toxicity dose (TD50).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client with hypertension has had poor results from a potent antihypertensive medication. Which response should the nurse make when a new drug is prescribed for the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The drug you took is very potent, and a higher dose is needed."

"The new drug has greater efficacy, so it will help reduce your blood pressure."

"The healthcare provider must have made an error in the orders."

"Efficacy in treating hypertension is more important than potency."

"You are correct. I think the healthcare provider meant to order both drugs."

Answer: 2, 4

Explanation:

A higher dose of a potent drug may cause more serious adverse effects without greater efficacy. Efficacy is more important than potency in providing blood pressure control.

This is not an appropriate response by the nurse.

Efficacy is more important than potency in pharmacologic treatment.

This is not an appropriate response, and the nurse cannot assume the order was supposed to be for two drugs.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-4 Compare and contrast the terms potency and efficacy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse is reviewing the medication administration record for a group of clients. Which agent should the nurse identify that has a nonspecific cellular response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Ethyl alcohol

General anesthetics

Osmotic diuretics

Calcium channel blockers

Alpha-adrenergic antihypertensives

Answer: 1, 2, 3

Explanation:

Ethyl alcohol is an example of an agent that acts by nonspecific mechanisms, independently of cellular receptors.

General anesthetics are an example of agents that act by nonspecific mechanisms, independently of cellular receptors.

Osmotic diuretics are an example of agents that act by nonspecific mechanisms, independently of cellular receptors.

Calcium channel blockers have a specific mechanism of action.

Alpha-adrenergic antihypertensives have a specific mechanism of action.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-6 Distinguish among an agonist, a partial agonist, and an antagonist.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The clinical trainer reviews the phases of graded dose—response with the nursing staff. Which statement made by a nurse indicates an understanding of phase 2 of the response?

"This is the measure of the safety margin of the drug."

"Very few target cells have been affected by the drug."

"The client's response is based on the amount of drug given."

"Increasing the drug dose will produce no additional therapeutic response."

Answer: 3

Explanation:

The therapeutic index is the margin for safety of a drug.

Phase 1 occurs at the lowest doses of the drug. During this phase very few target cells have been affected by the drug.

Phase 2 demonstrates the amount of drug administered and the degree of response obtained by the client.

Phase 3 is the plateau phase. The plateau phase occurs when increasing the drug dose produces no additional therapeutic response.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 5-1 Define pharmacodynamics and discuss how frequency distribution curves may be used to explain how patients respond differently to medications.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A literature review reveals that a new drug has a median lethal dose of 10 and a median effective dose of 5. The nurse determines that an error in which \_\_\_\_\_ times the correct dose is given could be lethal. Record your answer rounding to the nearest whole number.

Answer: 2

Explanation:  $x = 10/5$ ; solving for  $x$ , the therapeutic index would be 2. This means it would only take an error in magnitude of approximately two times the average dose to be lethal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-2 Differentiate among the terms therapeutic index, median lethal dose (LD<sub>50</sub>), and median toxicity dose (TD<sub>50</sub>).

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

A client reports sending information to a company for pharmacogenomic testing. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Have you changed your medications?"

"Have you talked with the healthcare provider about the results?"

"Why did you do that?"

"Was that test expensive?"

"Who told you about the testing?"

Answer: 1, 2

Explanation:

The most important question is if the client has changed therapy secondary to test results.

It is important for the client to discuss the results of the tests and any indicated changes with the healthcare provider.

Asking a "why" question is confrontational and is likely to result in the client not sharing more information.

The nurse may be curious as to the expense of the test, but the cost is not pertinent to this discussion.

Asking who suggested the test is confrontational and is likely to result in the client not sharing more information.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 5-7 Explain how advances in pharmacogenetics may be used to customize drug therapy.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

The nurse reads that a newly discovered drug is a functional antagonist for some commonly administered medications. Which action should the nurse expect the drug to have?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Blocks alpha receptors

Enhances drug excretion

Blocks beta receptors

Speeds drug metabolism

Inhibits protein synthesis

Answer: 2, 4

Explanation:

Functional antagonists do not block alpha receptors.

Functional antagonists change pharmacokinetic factors such as excretion.

Functional antagonists do not block beta receptors.

Functional antagonists change pharmacokinetic factors such as metabolism.

Drugs that bind with DNA may inhibit protein synthesis.

Page Ref: 56

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 5-1 Define pharmacodynamics and discuss how frequency distribution curves may be used to explain how patients respond differently to medications.

MNL Learning Outcome: Examine the processes of pharmacodynamics and drug safety.

### ***Pharmacology for Nurses, 7e (Adams)***

## **Chapter 6 The Nursing Process and Clinical Judgment Measurement Model in Pharmacology**

The nurse follows the nursing process when conducting medication education about insulin. Which question will the nurse ask to evaluate the client's knowledge of insulin?

"Is your abdomen the best place to inject insulin?"

"What questions do you have about insulin?"

"Can you recognize when you are experiencing hypoglycemia?"

"Can you tell me four points you remember about how to take your insulin?"

Answer: 4

Explanation:

Asking the client if their abdomen is the best place to inject insulin is an assessment question.

Asking the client what questions they have about insulin is an assessment question.

Asking the client if they can recognize the effects of hypoglycemia is an assessment question.

The nurse is evaluating the effectiveness of medication education by asking the client for feedback from the education provided.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies  
Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.  
MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse assesses the client with diabetes mellitus prior to administering medications. Which question should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Are you allergic to any medications?"

"Are you taking any herbal or over-the-counter medications?"

"How difficult is it for you to maintain your ideal body weight?"

"Will you please tell me about the kind of diet you follow?"

"What other medications are you currently taking?"

Answer: 1, 2, 4, 5

Explanation:

Questions about allergies are important during assessment.

Questions about herbal and over-the-counter medications are an important part of assessment.

Ideal body is an important question but does not refer specifically to medication administration.

Questions about normal diet help to assess health management and are pertinent to drug administration.

Questions about current medication are important during assessment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The healthcare provider has prescribed a nitroglycerine (Nitrodur) patch for the client. Which outcome would the nurse select for this client as it relates to use of the medication?

Client will be able to identify the expiration date of the medication prior to discharge.

Client will verbalize three side effects of the medication prior to discharge.

Client will state the reason for receiving the medication prior to discharge.

Client will demonstrate correct application of the patch prior to discharge.

Answer: 4

Explanation:

The client does not need to identify the expiration date of the medication in order to correctly apply the patch.

The client does not need to identify side effects of the medication in order to correctly apply the patch.

The client does not need to state the reason for the medication in order to correctly apply the patch.

The overall goal of nursing care related to pharmacotherapy is the safe and effective administration of medication. In this instance, the most important aspect of client teaching is that the client be able to correctly apply the patch. If the patch is not correctly applied, the other issues are irrelevant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 6-4 Identify the main components of the planning phase of the nursing process and relate them to the generate solutions phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The client is receiving albuterol (Proventil) for treatment of bronchospasm related to asthma. Which action should the nurse take regarding this medication?

Monitor for relief of bronchospasms.

Assess for nausea and headache.

Evaluate serum drug levels.

Provide age-appropriate education about the medication.

Answer: 1

Explanation:

Monitoring drug effects, in this case the relief of bronchospasms, is a primary action.

Nausea and headache are expected side effects.

Serum drug levels are not indicated for this medication.

Teaching about the medication should have occurred prior to administering it to the client.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

A client outcome for treatment of cellulitis of a lower extremity is "Client will state a key point about antibiotic treatment for cellulitis." Which statement indicates to the nurse that the outcome has been met?

"If the pain gets too bad, I can take my prescribed pain medication."

"If the swelling continues, I can apply an ice pack."

"I need to take all the pills even if my leg looks better."

"I must keep my leg elevated until the swelling goes down."

Answer: 3

Explanation:

Taking pain medication does not address the outcome for antibiotic treatment.

Applying an ice pack does not address the outcome for antibiotic treatment.

Taking all the medication even if the leg looks better is a key point about antibiotic therapy and meets the client's outcome.

Keeping the leg elevated does not address the outcome for antibiotic treatment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Quality and Safety: Contribute to assessment of outcome achievement. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

A client with a mental health disorder stops taking medication for auditory hallucinations. For which situation should the nurse report the diagnosis of "nonadherence"?

The client reported a physical change as the reason for stopping the medication.

The client made an informed decision not to take the medication.

The client was unsure about how to order a refill for the prescription.

The client did not understand why the medication was prescribed.

Answer: 2

Explanation:

If the client reports a physical change as the reason for stopping the medication, the nursing diagnosis should be related to that change. For example, if the client reports being fatigued, the nursing diagnosis would relate to that finding.

Nonadherence assumes that the client has been properly educated about the medication and has made an informed decision not to take it.

Being unsure of the way to obtain a refill on the medication is related to a knowledge deficit, not nonadherence.

Not knowing why the medication was prescribed is related to a knowledge deficit, not nonadherence.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.4 Diagnose actual or potential health problems and needs. | NLN Competencies: Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Diagnosis  
Learning Outcome: 6-3 Explain the nursing diagnosis phase of the nursing process and relate it to the analyze cues and prioritize hypotheses phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is preparing for medication administration to a group of clients. Which overall outcome should the nurse identify for the clients?

Clients will take the medications after receiving instruction.

Clients will receive the best therapeutic outcome from the medications.

Clients will state the reason they are receiving the medications.

Clients will experience minimal side effects after taking the medications.

Answer: 2

Explanation:

The fact that clients take the medications is not the best overall outcome for the clients.

Outcomes should first focus on the therapeutic outcome of the medications.

Having the clients state the reason they are receiving the medications is not the best overall outcome for the clients.

The treatment of side effects is not the best overall outcome for the clients.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 6-4 Identify the main components of the planning phase of the nursing process and relate them to the generate solutions phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is managing care for several clients at a diabetic treatment center. Which intervention should the nurse make a priority?

Administer the correct medicine to the correct client at the correct dose and the correct time via the correct route.

Return the client to an optimum level of wellness while limiting adverse effects related to the client's medical diagnosis.

Include any cultural or ethnic preferences in the administration of the medication.

Answer any questions the client may have about the medicine, or any possible side effect of the medication.

Answer: 2

Explanation:

The correct client, dose, and time refer to the five "rights" of medication administration and, while important, is not the best overall nursing intervention.

Interventions are aimed at returning the client to an optimum level of wellness and limiting adverse effects related to the client's medical diagnosis or condition.

While it is important to include cultural and ethnic preferences, this is not the best overall intervention.

Answering questions the client may have is an appropriate intervention but is not the best overall intervention.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is planning care for assigned clients. Which role should the nurse prioritize as defined by state nurse practice acts and by regulating bodies such as The Joint Commission?

Prescribing medication

Client teaching

Ordering lab tests

Discharging clients

Answer: 2

Explanation:

Healthcare providers prescribe medications. Administering medications and assessing the client's response is within the scope of practice for nurses. However, prescribing medications is not the role of nurses.

State nurse practice acts and regulating bodies such as The Joint Commission consider teaching to be a primary role for nurses, giving it the weight of law and key important accreditation standards.

Healthcare providers prescribe lab tests. Evaluating the results of lab tests is within the scope of practice for nurses. However, prescribing lab tests is not a role of nurses.

Healthcare providers determine when a client will be discharged, based on input from the nurse. Completing client education is within the scope of practice for nurses. However, discharging a client is not the role of nurses.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 9.1 Demonstrate an ethical comportment in one's practice reflective of nursing's mission to society. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 6-4 Identify the main components of the planning phase of the nursing process and relate them to the generate solutions phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The Joint Commission identifies client education as a deficit in a healthcare organization. Which intervention should the nursing department identify to improve this deficit?

Providing educational pamphlets about medications to clients

Asking the healthcare providers to provide medication education to clients

Discussing medications each time they are administered to clients

Requesting more frequent pharmacy consults for clients

Answer: 3

Explanation:

Educational pamphlets can be effective but are not as effective as the nurse providing education to the client.

Medication education is considered to be a responsibility of the nurse, not the healthcare provider.

Discussing medications each time they are administered is an effective way to increase the amount of education provided.

Medication education is considered to be a responsibility of the nurse, not the pharmacist.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse prepares medication teaching pamphlets for a client. Which assessment should the nurse complete before providing the pamphlets to the client?

Ability to pay for the medication

Religious attitudes toward medicine

Reading level

Cultural bias toward taking medicine

Answer: 3

Explanation:

Assessing the client's ability to pay for the medication is important but is not the primary assessment.

Assessing the client's religious attitudes is important but is not the primary assessment.

Educational pamphlets are ineffective if the reading level is above what the client can understand.

Assessing the client's cultural bias is important but is not the primary assessment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is reviewing the steps of the nursing process with a student. In which step of the nursing process should accuracy be of primary importance?

Evaluation

Assessment

Diagnosis

Planning

Answer: 2

Explanation:

While accuracy in evaluation is important, it is more important to be accurate in a different step of the nursing process.

Assessment is the basis for the development of the rest of the steps of the nursing process. While the nurse always strives to be accurate, inaccuracies in assessment will translate as inaccuracies in the remaining steps.

While accuracy in diagnosis is important, it is more important to be accurate in a different step of the nursing process.

While accuracy in planning is important, it is more important to be accurate in a different step of the nursing process.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

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Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is assessing a newly admitted client's current medication. Which data should the nurse identify as objective data?

The client's partner tells the nurse what medications the client has been receiving.

The nurse checks the prescription bottles the client has brought to the hospital.

The nurse asks the healthcare provider what medications the client was currently taking.

The client lists the medications that have been prescribed.

Answer: 2

Explanation:

A list of medications provided by the client's wife is subjective, not objective, data.

Objective data includes information gathered through assessment and not necessarily what the client says or perceives. The most reliable and objective assessment by the nurse is to check the client's prescription medication bottles.

Asking the healthcare provider what medication the client was receiving is subjective data, and the healthcare provider may not remember all the medication the client was receiving.

A list of medications provided by the client is subjective, not objective, data.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is administering medications to an older adult. Which laboratory tests should the nurse assess prior to the administration of medication?

Complete blood count (CBC) and electrolytes

Kidney and liver function tests

Arterial blood gases (ABGs) and basic metabolic panel

Lipid panel and thyroid function tests

Answer: 2

Explanation:

Complete blood count (CBC) and electrolytes are not likely to help in determining the proper drug dosage.

Renal and hepatic function tests are essential for many clients, particularly older clients and those who are critically ill, as these will be used to determine the proper drug dosage.

Arterial blood gases (ABGs) and a basic metabolic panel are not likely to help in determining the proper drug dosage.

Lipid panel and thyroid function tests are not likely to help in determining the proper drug dosage.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is reviewing the steps of the clinical judgment measurement model (CJMM) with a student. In which order should the student list the steps as evidence that teaching was effective? Prioritize hypotheses, generate solutions, recognize cues, analyze cues, evaluate outcomes, take action

Analyze cues, recognize cues, generate solutions, prioritize hypotheses, evaluate outcomes, take action

Recognize cues, analyze cues, prioritize hypotheses, generate solutions, take action, evaluate outcomes

Take action, recognize cues, prioritize hypotheses, analyze cues, evaluate outcomes, generate solutions evaluation

Answer: 3

Explanation:

The process does not begin with prioritizing hypotheses.

The process does not begin with analyzing cues.

The steps in the CJMM include recognizing cues, analyzing cues, prioritizing hypotheses, generating solutions, taking action, and evaluating outcomes.

The process does not begin with taking action.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-1 Understand the steps of the nursing process including its cyclical nature and compare these to the Clinical Judgment Measurement Model (CJMM).

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is caring for assigned clients. In which order should the nurse complete the steps of the clinical judgment measurement model (CJMM)?

Provides interventions.

Lists desirable outcomes.

Evaluates outcomes of care.

Determines cues of importance.

Identifies important information.

Identifies explanations that are most likely.

Answer: 5, 4, 6, 2, 1, 3

Explanation: The order of the steps of the CJMM are recognize cues, analyze cues, prioritize hypotheses, generate solutions, take action, and evaluate outcomes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-1 Understand the steps of the nursing process including its cyclical nature and compare these to the Clinical Judgment Measurement Model (CJMM).

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse provides medications to a client. In which order should the nurse act when taking action in the clinical judgment measurement model?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Administer medication.

Prevent adverse events.

Provide medication education.

Monitor effects of the medication.

Document medication administration.

Answer: 1, 4, 2, 3, 5

Explanation: The implementation phase is when the nurse applies the principles of care to move a client toward goals and wellness. When applied to pharmacotherapy, taking action is completed by administering medication, monitoring the effects of the medication, preventing adverse effects, providing medication education to ensure safe and effective home use, and documenting medication administration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is reviewing the steps of the clinical judgment measurement model. Which information about goals and outcomes should the nurse keep in mind?

Generally, goals are more measurable than outcomes.

Goals involve very specific criteria that evaluate interventions.

Obtaining the outcomes is essential for goal attainment.

After selecting the nursing diagnosis, interventions are completed.

Answer: 3

Explanation:

Outcomes are generally more measurable than goals as they are more specific.

Goals are more general than specific.

Outcomes are specific, measurable criteria that are used to measure goal attainment.

The planning phase (including outcomes and goals) follows nursing diagnosis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 6-4 Identify the main components of the planning phase of the nursing process and relate them to the generate solutions phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse gives a client a newly prescribed medication. Which action should the nurse make a priority?

Evaluating the results of recent labs

Monitoring the client's respiratory status

Administering additional medications if side effects occur

Measuring client's weight daily

Answer: 2

Explanation:

Monitoring lab values might be appropriate nursing interventions with some medications but would not be the priority.

Any time a new medication is provided to the client, it is important to monitor for an allergic reaction. Anaphylaxis, a life-threatening allergic reaction, can impair breathing.

It may be necessary to administer additional medications if side effects occur, but the nurse needs to assess the client first.

Measuring weight might be an appropriate nursing intervention with some medications but would not be the priority.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

A client with hypertension is receiving medication to lower blood pressure. Which action demonstrates the evaluation process related to medication administration?

Asking the client if they have adhered to the prescribed treatment

Determining that goals were not met 3 days following medication administration

Administering IV antihypertensive agents

Determining the client's baseline blood pressure

Answer: 2

Explanation:

Asking about compliance would be the assessment step.

Evaluation is the final step in the nursing process where goal attainment is determined.

Administering medications is the intervention step.

Determining the client's baseline blood pressure would be the assessment step.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Quality and Safety: Contribute to assessment of outcome achievement. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is assessing a newly admitted client. Which data should the nurse categorize as objective data?

Client reports pain.

Client says anxiety occurs most days.

Client has a wound measuring 5 cm in length.

Client states body weight is 150 pounds.

Answer: 3

Explanation:

Subjective data consist of what the client says or perceives.

Subjective data consist of what the client says or perceives.

Objective data are gathered through physical assessment, laboratory tests, and other diagnostic sources.

Subjective data consist of what the client says or perceives.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse prepares medication teaching for a client. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Adverse effects that can be expected

Which adverse effect to report to the healthcare provider

Therapeutic action of the drug

Chemical composition of the drug

Name of the drug manufacturer

Answer: 1, 2, 3

Explanation:

In order to help the client identify and prevent adverse effects, the client should be taught the adverse effects.

The client should be taught when to notify the healthcare provider of adverse effects.

In order to help the client identify and prevent adverse effects, the client should be taught the therapeutic action of the drug.

It is not necessary to teach the client the chemical makeup of the drug.

It is not necessary to teach the client the name of the drug manufacturer.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is preparing to care for a newly admitted client with diabetes. Which information should the nurse prioritize?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Medical history

Current lab results

Medication allergies

Use of dietary supplements

Number of previous hospitalizations

Answer: 1, 2, 3, 4

Explanation:

Medical history may reveal conditions that contraindicate the use of certain drugs.

Current lab results may reveal important information about the health of organs, such as the kidneys and liver, which would be important to metabolism and excretion of drugs.

Allergies to one drug may cross over to another drug and would need to be avoided.

Some dietary supplements can interact with drugs.

While this is good information, it is not critical to this admission.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse has admitted a new client to the unit. Which concepts should the nurse use when developing a nursing diagnosis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Base the nursing diagnosis on the medical diagnosis.

Focus on what the nurse needs to help the client return to health.

Include the client in the identification of needs.

Consider the client's response to the current health problem.

Be certain the diagnosis is measurable.

Answer: 3, 4

Explanation:

The nursing diagnosis is not dependent on the medical diagnosis.

The focus should be on the client's needs.

Including the client in the formulation of nursing diagnoses encourages more active involvement in working toward meeting identified goals.

A nursing diagnosis is a clinical judgment concerning human response to health conditions.

Goals and outcomes need to be measurable, not nursing diagnoses.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.4 Diagnose actual or potential health problems and needs. | NLN Competencies: Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Diagnosis  
Learning Outcome: 6-3 Explain the nursing diagnosis phase of the nursing process and relate it to the analyze cues and prioritize hypotheses phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is entering data into the electronic medical record for a client. Which action should the nurse take when the nursing diagnoses are automatically generated for the client?

Rewrite the nursing diagnoses.

Accept the nursing diagnoses as valid.

Ask a colleague to validate the diagnoses.

Adjust the diagnoses as appropriate for the client.

Answer: 4

Explanation:

The nursing diagnoses do not need to be rewritten.

The nursing diagnoses should not be automatically accepted as valid.

There is no need to ask a colleague to validate the diagnoses.

The nurse should review automatically generated nursing diagnoses and make appropriate adjustments as needed to direct client care.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.4 Diagnose actual or potential health problems and needs. | NLN Competencies: Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Diagnosis

Learning Outcome: 6-3 Explain the nursing diagnosis phase of the nursing process and relate it to the analyze cues and prioritize hypotheses phase of the CJMM.  
MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

A client takes a new medication for a month. Which statement indicates to the nurse that medication teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I've been taking my medication on an empty stomach like the prescription label said to."

"I take my medication first thing in the morning, just like you said."

"I have been able to decrease my medication to every other day and that saves me some money."

"I switched all my medications to one pharmacy like you suggested."

"Did you say I need to take this medication with water or milk?"

Answer: 1, 2, 4

Explanation:

Some medications must be taken on an empty stomach. This statement indicates the client is following instruction.

This statement indicates the client is following instruction.

Changing dosage schedule without direction indicates failure to follow instruction.

Filling all prescriptions at the same pharmacy will assist the pharmacist in comparing current and new medications for interactions. This statement indicates the client is following the nurse's suggestion.

The client is unsure of instructions.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Quality and Safety: Contribute to assessment of outcome achievement. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is developing a care plan for a client. Which client outcome statement is correctly formatted?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The client will understand the effects of the medication administered prior to discharge.

The nurse will administer all medications within 10 minutes of their scheduled time.

The client will identify two adverse effects of enoxaparin (Lovenox) prior to self-administering the drug.

The client will verbalize the storage requirements for NPH insulin prior to discharge.

The healthcare provider will discuss the desired effects of discharge medications with the client the evening before discharge.

Answer: 3, 4

Explanation:

*Understand* is not a measurable verb.

Client outcome statements are focused on what the client will do, not on what the nurse will do.

*Identify* is a measurable verb; there is a specific measure to be evaluated and a time line is present.

*Verbalize* is a measurable verb; there is a specific measure to be evaluated and a time line is present.

Client outcome statements are focused on what the client will do, not on what the healthcare provider will do.

Page Ref: 66

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning  
Learning Outcome: 6-4 Identify the main components of the planning phase of the nursing process and relate them to the generate solutions phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is caring for a client who speaks a non-English language. In which order should the nurse attempt communicating with this client?

Adult family member interprets

Healthcare agency interpreter is present

Nurse uses drawings and body language to communicate

Child relative interprets

No interpretation is attempted

Answer: 2, 1, 4, 3, 5

Explanation: In the ideal situation the nurse will contact an interpreter employed or provided by the healthcare agency. The next best solution is for an adult family member to interpret, with the third best being a child in the family who has been assessed to be able to handle the translation. In the absence of these options, the fourth best plan is for the nurse to use drawings, body language, pictures, and nonverbal clues to communicate. Not using any kind of interpretation is not desirable and leaves the nurse in the situation of doing something "to" a client with no explanation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 6-5 Discuss key nursing interventions required in the implementation phase of the nursing process and identify how these relate to the take action phase of the CJMM for patients receiving medications.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

During evaluation, the nurse, client, and healthcare provider determine that the goals of antibiotic therapy have not been met. Which action should the nurse take?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Review the dosage of the medication.

Consider checking serum drug levels.

Discard the idea that the infection is treatable.

Consider prolonging therapy.

Consider using a different antibiotic.

Answer: 1, 2, 4, 5

Explanation:

The dosage may not be correct for the individual client.

In some instances, checking serum drug levels will help identify if the dosing schedule is adequate.

Just because the first evaluation is that the goal is not met does not indicate that the goal is not a good one or that the therapy is not going to work.

The drug may work if given more time.

The infection may require use of a second antibiotic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Quality and Safety: Contribute to assessment of outcome achievement. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 6-6 Explain the importance of the evaluation outcomes phases of the nursing process and CJMM as applied to pharmacotherapy.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

The nurse is reviewing a list of medications with a client. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Drug names

Drug manufacturer

Dosage being taken

Frequency of administration

When last refill was obtained

Answer: 1, 3, 4

Explanation:

Drug name is essential information for this assessment.

It is not necessary to record the name of the drug manufacturer.

Dosage being taken is essential information for this assessment.

Frequency of administration is essential information for this assessment.

It is not necessary to determine when the last prescription refill was obtained.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Factors that contribute to or threaten health. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 6-2 Explain the assessment phase of the nursing process and relate it to the recognize cues phase of the CJMM.

MNL Learning Outcome: Examine the nursing process and the CJMM as it relates to pharmacology.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 7 Medication Errors and Risk Reduction**

The nurse prepares medications for a client. Which information should the nurse recall as causing medication errors?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Miscalculating the medication dose.

Forgetting to check the client's identification band.

Unable to validate an order with the healthcare provider.

Misinterpreting a healthcare provider's order.

Administering the incorrect drug.

Answer: 1, 2, 4, 5

Explanation:

Medication errors may be related to miscalculations.

The nurse should always check the client's identification band.

As long as the nurse understands the healthcare provider's order, there is no need to validate the

order with the healthcare provider.

Medication errors may be related to misinterpretations.

Medication errors may be related to misadministration.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 7-2 Identify factors that contribute to medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse recognizes that agency system checks are in place to decrease medication errors. With which professional should the nurse collaborate to check the accuracy of the medication prior to administration?

Nursing supervisor

Nursing unit manager

Pharmacist

Healthcare provider

Answer: 3

Explanation:

The nursing supervisor does not commonly collaborate with the nurse on checking the accuracy of the medication prior to administration.

The nursing unit manager does not commonly collaborate with the nurse on checking the accuracy of the medication prior to administration.

Pharmacists and nurses must collaborate on checking the accuracy and appropriateness of drug orders prior to client administration.

The healthcare provider does not commonly collaborate with the nurse on checking the accuracy of the medication prior to administration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 7-2 Identify factors that contribute to medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse makes a medication error. Which action should the nurse complete first?

Assess the client.

Complete an occurrence report.

Document the error in the medical record.

Report the error to the healthcare provider.

Answer: 1

Explanation:

The client's safety is the priority. Assessing the client should be completed first.

An occurrence report should be completed after the client has been assessed and the healthcare provider notified.

Documentation of the error should be completed last.

The error should be reported to the healthcare provider so that interventions can be identified to counteract the effects of the medication given in error.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: II.A.2 Describe scopes of practice and roles of healthcare team members. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated

Concepts: Nursing Process: Implementation

Learning Outcome: 7-3 Explain the impact of medication errors on patients and healthcare agencies.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

A series of category E medication errors have occurred on a hospital unit. Which characteristic of category E errors should the risk manager review with the nursing staff?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The error contributed to the death of a client.

A client was harmed.

No interventions to sustain life were required as a result of the error.

Harm to the client was permanent.

The client's hospitalization was prolonged as a result of the error.

Answer: 2, 3

Explanation:

Errors that contribute to the death of a client are Category I errors.

Category E errors result in harm to the client.

Category E errors do not result in the need for interventions to sustain life.

Category E errors do not result in permanent harm.

Category E errors do not result in prolonged hospitalization.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-1 Define medication error.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse administers an adult dose of an antibiotic to a 3-month-old baby and the baby suffers permanent brain damage. In which way would this affect the healthcare facility?

The professional license of the nurse will be lost.

The morale of the staff involved will be decreased.

The reputation of the healthcare facility will suffer.

The healthcare facility will pay a very large settlement.

Answer: 2

Explanation:

The professional license of the nurse may or may not be lost depending on the circumstances of the case.

Medication errors that result in permanent damage increase self-doubt and destroy the morale of all staff involved; some may choose to leave the nursing profession.

The reputation of the facility will probably suffer, but this is not the most important effect.

Payment of a large settlement is not the primary concern.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: II.A.2 Describe scopes of practice and roles of healthcare team members. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated

Concepts: Nursing Process: Evaluation

Learning Outcome: 7-3 Explain the impact of medication errors on patients and healthcare agencies.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse administers an evening medication to the client in the morning. Which action should the nurse take?

Change the medication administration time to the morning.

Notify the healthcare provider about the error.

Tell the evening nurse to hold the evening dose just for tonight.

Document the incident in the client's health record.

Answer: 2

Explanation:

The time of the medication cannot be changed without an order from the healthcare provider, if it has been ordered to be given at a particular time (morning vs. evening). If the healthcare provider prescribes the medication to be given once daily, the nurse would be able to determine the best time to administer the medication to the client. However, this is not the initial action of the nurse. Even though the medication went to the correct client, this is still considered a medication error.

The nurse's first priority is to assess the client and contact the healthcare provider.

Telling the evening nurse to hold the evening dose is unethical; an error has been committed.

However, if the nurse is not able to change the time of administration of this medication to the morning, the client's blood level of the medication will not be as stable.

Completing an incident report and documenting the facts of the situation in the client's medical record are a lower priority.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Communicate potential risk factors and actual errors. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-4 Describe methods for reporting and documenting medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

While preparing medications, a colleague interrupts the nurse to discuss a non-work related issue. Which action should the nurse take?

Ask the colleague to help with administering medications so they can have more time to talk.  
Continue to prepare the medications for administration and pretend to listen to the colleague.  
Stop preparing medications until the colleague has finished talking.

Tell the colleague that the conversation is distracting and ask that no talking be done while medications are being prepared.

Answer: 4

Explanation:

It is inappropriate to ask the colleague to assist with medications so there is more time for the nurses to talk.

Pretending to listen to the colleague's conversation will also be distracting.

When preparing medications, the nurse must focus entirely on the task at hand and instruct others who are talking to stop. The nurse cannot stop preparing medications; the clients must receive them on time. Client care is the highest priority.

When preparing medications, the nurse must focus entirely on the task at hand and instruct others who are talking to stop.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-5 Describe strategies the nurse can implement to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse administers an unfamiliar medication and researches information about the drug afterwards. In which way should the manager evaluate the nurse's behavior?

This was acceptable as long as the nurse looked up the action and side effects of the drug later.

An error could have occurred because the nurse was unfamiliar with the medication.

The nurse should have asked a colleague about the medication.

An error did occur because the nurse could have administered the medication via the incorrect route.

Answer: 2

Explanation:

It is not acceptable for a nurse to administer an unfamiliar medication and then look up the action and side effects later; an error could occur.

Nurses should never administer a medication unless they are familiar with its uses and side effects; an error could have occurred because the nurse was unfamiliar with the medication.

The nurse should research the medication and not ask a colleague about it.

An error did not occur but could have because the nurse was unfamiliar with the medication.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 7-5 Describe strategies the nurse can implement to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

After making a medication error, the nurse documents the error in the client's record and completes the incident report. For which reason did the nurse complete these actions?

Verify that the client's safety was protected.

Protect the client from further harm.

Protect the healthcare facility from litigation.

Protect the nurse from liability.

Answer: 1

Explanation:

Documentation in the client's medical record and completion of an incident report verify that the client's safety was protected.

The client has already been harmed; the documentation will not protect the client from future harm.

Documentation of an error does not necessarily protect the healthcare facility from litigation.

Documentation of an error does not necessarily protect the nurse from liability.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Communicate potential risk factors and actual errors. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-4 Describe methods for reporting and documenting medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is preparing medications for assigned clients. Which action will the nurse take to prevent errors?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Always check the client's identification band prior to administration of medications.

Open all of the medications immediately prior to administration.

Explain to healthcare providers that verbal orders will not be accepted.

Record the medication on the medication administration record (MAR) immediately prior to administration.

Validate all orders with another nurse prior to administration of medications.

Answer: 1, 2, 3

Explanation:

Ways to reduce medication errors include checking the client's identification band prior to administration of medications.

Ways to reduce medication errors include opening all of the medications immediately prior to administration.

Ways to reduce medication errors include explaining to healthcare providers that verbal orders will not be accepted.

Medications should be documented on the medication administration record (MAR) after they have been administered.

All orders do not need to be validated with another nurse, only the orders that the nurse is unsure about.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-5 Describe strategies the nurse can implement to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse teaches ways to prevent medication errors in the hospital. Which question should the nurse prioritize when discussing medications with a client?

"Do you know the names of all the medications you take?"

"Do you trust your healthcare provider to order the correct medication?"

"Do you have a friend to verify that you are receiving the correct medication?"

"Do you know what your illness is and if you will need surgery?"

Answer: 1

Explanation:

Knowing the names of all medications taken can reduce drug errors when a client is admitted to the hospital.

Asking the clients if they trust their healthcare providers to order the correct medication is inappropriate.

It is inappropriate for friends of clients to verify medications prior to administration.

Knowing the illness and anticipating surgery do not necessarily help prevent medication errors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 7-7 Identify patient teaching information that can be used to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse assesses an adverse effect of a medication that has been administered. To which agency should the nurse report this adverse effect?

Food and Drug Administration's (FDA) MedWatch website

The Joint Commission

Safe Medicine website

Med MARX website

Answer: 1

Explanation:

Adverse events with medication should be reported to the FDA's MedWatch website.

Individual reporting of errors to The Joint Commission is not required.

There is no Safe Medicine website.

There is no Med MARX website.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-4 Describe methods for reporting and documenting medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is on a committee to reduce medication errors in a large healthcare facility. Which

recommendation should the nurse make that will most likely help to reduce medication errors?

Train medication technicians to administer medications.

Use robots to prepare all medications for administration by the nurse.

Use automated, computerized cabinets on all nursing units.

Designate nurses whose only function is to administer medication.

Answer: 3

Explanation:

Healthcare agencies are not planning to have medication technicians administer medications.

Medication technicians are not qualified to assess the client for side effects.

Healthcare agencies are not planning to have robots prepare all medications for administration by the nurse.

To help reduce medication errors, many healthcare agencies are using automated, computerized, locked cabinets for medication storage on patient care units.

Healthcare agencies are not planning to designate nurses who just do medication administration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a

generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-8 Explain strategies used by healthcare organizations to reduce the number of medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is administering medications to a group of clients. Which situation should the nurse identify as a medication error?

The wrong dose of a medication is drawn up but is caught and corrected prior to administration.

A medication is administered to a client with no allergies, yet an anaphylactic response occurs.

A medication is administered in liquid form instead of tablet form due to the client's difficulty swallowing.

A client experiences unexpected hypotension as a result of medication administration.

Answer: 1

Explanation:

A medication error can occur even when it does not reach the client. These are category A errors.

Unexpected reactions to medications are not preventable and would be considered adverse effects, not medication errors.

Altering the form from a tablet to a liquid does not constitute a medication error.

Unexpected reactions to medications are not preventable and would be considered adverse effects, not medication errors.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a

generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 7-1 Define medication error.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse manager discusses medication errors during a staff meeting. Which statement by the nurses indicates the teaching was effective?

"The nurse who observes the five rights will prevent all medication errors from occurring."

"Nurses are always liable when a medication error occurs."

"Handwritten orders are more frequently associated with medication errors than are typed orders."

"An incorrect dose (based on weight) is ordered, dispensed, and administered to a client. The administering nurse and ordering clinician would be the only parties held accountable."

Answer: 3

Explanation:

Observing the five rights is essential to avoiding medication errors but will not prevent all medication errors from occurring.

Although the nurse is a major player in medication safety, there are instances when medication errors occur that do not involve the nurse, such as when clients take medications at home.

Handwritten orders can be illegible, leading to higher medication error rates.

The clinician ordering the medication, the nurse administering the medication, and the pharmacist dispensing the medication would be held accountable.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 7-2 Identify factors that contribute to medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is reviewing safe medication administration with a new graduate. Which information should the nurse include in the teaching?

Give medications within the time frame specified by hospital policy.

Administer medications intramuscularly when a client refuses to take it orally.

Use abbreviations while charting to save time.

Discontinue a medication at the request of a client.

Answer: 1

Explanation:

Administering medications as specified by agency policy is meeting the standard of care.

Changing the route of medication administration requires an order and would not be appropriate since the client is refusing it.

Using abbreviations might save time but is not generally considered meeting a standard of care.

Discontinuing medications is outside the scope of nursing.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 7-5 Describe strategies the nurse can implement to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is asked for the name of the federal agency responsible for reviewing all medication error reports. Which response should the nurse make?

Centers for Disease Control and Prevention (CDC)

Risk management department at the healthcare facility in which it occurred

National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP)

Food and Drug Administration's Division of Medication Error Prevention and Analysis (DMEPA)

Answer: 4

Explanation:

Medication errors are not reported to the CDC.

If the facility has a risk management department, they will review all medication errors in that facility. However, this isn't a federal agency.

Healthcare professionals are encouraged to report medication errors to NCC MERP, although it is not a requirement.

The federal agency responsible for reviewing all medication error reports is DMEPA.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-4 Describe methods for reporting and documenting medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

While preparing medications, the nurse notes that a wrong concentration of a drug was provided by the pharmacy. Which action should the nurse take?

Not report the error because the error was caught and corrected prior to drug administration.

Not report or document the error, since the error did not result in any harm to the client.

Reports the error to the healthcare provider and the charge nurse but does not document the error due to possible legal action.

Informs the client, documents the error as per hospital policy, and notifies the healthcare provider.

Answer: 4

Explanation:

It is essential to report and document medication errors to identify possible system failures, even when the error is caught prior to administration.

The nurse should report and document all medication errors whether the client was harmed or not.

It is essential to report and document medication errors to identify possible system failures, even when the error has potential for legal action.

The nurse should report and document all medication errors whether the client was harmed or not.

Page Ref: 73

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-8 Explain strategies used by healthcare organizations to reduce the number of medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

Medication reconciliation has been started for a newly admitted client. At which time should the nurses and others caring for this client check this list?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Each time that medications are administered to the client

When initial admission orders are received

When the client is transferred to a different unit within the hospital

When the client is discharged

If a medication error occurs

Answer: 2, 3, 4

Explanation:

Medication reconciliation sheets are not the same as medication administration records.

The list of medications the client takes at home should be checked against admission orders.

Medication reconciliation sheets should be checked when transfers occur.

Medication reconciliation sheets should be reviewed when the client is discharged.

There are many situations where a medication error might occur in which it is not necessary to check this list.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process:

Implementation

Learning Outcome: 7-6 Explain how effective medication reconciliation can reduce medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is planning to teach a client about a new medication. Which teaching method should the nurse use?

Instruct the client that their local pharmacy will teach them about this medication.

Give the client oral and written drug information and instructions.

Provide oral drug information and instructions as opposed to written.

Leave written drug information and instructions at the bedside.

Answer: 2

Explanation:

Clients may receive these oral and written materials from their pharmacy but should be supplied initially by the hospital.

Clients should be provided with oral and written drug information and instructions prior to discharge.

Oral information alone is insufficient.

Written information alone is insufficient.

Page Ref: 77

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 7-7 Identify patient teaching information that can be used to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is beginning medication reconciliation for a newly admitted client. Which information should the nurse include on this list?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The client takes ibuprofen for an occasional headache.

The client mixes a powdered form of vitamin C into orange juice in the morning.

The client applies essential oils to the forehead to help with allergies.

The client drinks milk fortified with vitamin D.

The client takes a prescription medication for osteoporosis once a week.

Answer: 1, 2, 3, 5

Explanation:

Over-the-counter medications such as ibuprofen are included in this list.

The powdered vitamin C is considered a supplement and should be included in the list.

Essential oils are an herbal or complementary therapy that should be included on the list.

Milk is standardly fortified with vitamin D so there is no reason to list it on the medication reconciliation list.

Prescription medications should be listed even if they are not taken daily.

Page Ref: 77

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process:

Implementation

Learning Outcome: 7-6 Explain how effective medication reconciliation can reduce medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse makes a medication error, but the client is not harmed. In which way should the nurse explain the medication errors to the client's family?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Failure to follow healthcare provider's orders

Failure to give the right medication

Failure to give a medication at the ordered time

Failure to call the pharmacy and report that the medication has been given

Failure to give the right dose of the medication

Answer: 1, 2, 3, 5

Explanation:

Failure to follow the healthcare provider's orders is a medication error.

Failure to give the right medication is a medication error.

Failure to give a medication at the ordered time is a medication error.

The delivery of the medication is recorded on the medical administration record (MAR); the nurse does not report to the pharmacy each time a medication has been given.

Failure to give the right dose of a medication is a medication error.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-1 Define medication error.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

A client says that medications were due an hour ago. In which way should the nurse realize the impact of medication errors?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Potentially extend the client's length of hospital stay

Result in expensive legal costs to the facility

Damage the facility's reputation

Physically devastating to nurse and client

Cause preventable deaths during hospitalizations

Answer: 1, 2, 3, 5

Explanation:

Medication errors can cause harm, which can extend the client's length of stay.

If a medication error causes a client harm, it can result in expensive legal fees for hospital defense.

If the incidence of medication errors is publicized, it can cause the facility to be seen as unsafe or to be delivering substandard care.

Medication errors can be physically devastating to clients but would be emotionally devastating to the nurse.

Medication errors are the most common cause of morbidity and preventable death within hospitals.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: II.A.2 Describe scopes of practice and roles of healthcare team members. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 7-3 Explain the impact of medication errors on patients and healthcare agencies.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The new nurse makes a medication error. Which statement by the nurse manager fosters a safe environment in which nurses will report medication errors?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Many of us have made a medication error in our careers. The most important issue is to identify why the error occurred."

"I know you could not feel any worse than you already do. We need to discuss how this error happened and how we can prevent it from happening again."

"It's really good that your client is okay and did not suffer any harmful effects of this error. We should discuss why this error occurred and how it can be prevented in the future."

"Because you are a new nurse, we should sit down and discuss the procedure you followed to see what you could have done to prevent this error."

"We need to sit down as soon as possible and write up an incident report describing everything you did incorrectly that caused this error."

Answer: 1, 2, 3, 4

Explanation:

All errors should be investigated with the goal of identifying why they occurred. This investigation should be done in a manner that is not punitive and will encourage staff to report errors without fear of punishment.

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All errors should be investigated with the goal of identifying why they occurred. This investigation should be done in a manner that is not punitive and will encourage staff to report errors without fear of punishment.

An incident report will need to be written, but the nurse who made the error should feel the report will identify factors contributing to the error rather than place blame.

Page Ref: 74

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Communicate potential risk factors and actual errors. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-4 Describe methods for reporting and documenting medication errors.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

A community health nurse is preparing a teaching plan regarding medications and their potential adverse effects for a new parent class. Which action should the nurse instruct the parents to do?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Maintain a list of current medications for each child.

Be aware of each child's medication allergies.

Know what the child's prescribed medication is for, how it should be administered, and when to expect the child to feel better.

Be aware that any leftover medication should be appropriately disposed of, not saved for future use.

Read the prescription label for any foods the child should avoid while taking the medication and for possible adverse effects to watch out for.

Answer: 1, 2, 3, 4

Explanation:

Parents should make a complete list of all prescribed medications, over-the-counter drugs, and any vitamins the child takes.

It is very important that parents be aware of a child's allergies in order to prevent an unnecessary allergic response.

Parents should know what condition the child's medication is prescribed for and how, when, and how much to administer. It is also important for parents to know when to expect the child to feel better so a follow-up visit can be made if the child is not feeling better.

Parents should be aware that it is not safe to self-diagnose and treat with leftover medication.

Parents should be aware the label often describes food and drinks to avoid. The label will not describe possible adverse effects; the nurse will need to describe these to the parents.

Page Ref: 75

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 7-7 Identify patient teaching information that can be used to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse is preparing a teaching plan for an older client who is taking multiple medications. Which principle should the nurse keep in mind during the planning phase?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The client should have all prescriptions filled at the same pharmacy.

The client should keep a list of all medications for easy accessibility.

Older clients often take multiple drugs, which is a common cause of medication errors.

Polypharmacy is unique to older clients and is the most common cause of medication errors.

The client should be aware of each prescribed medication, the dose, and possible side effects.

Answer: 1, 2, 3, 5

Explanation:

It is common for older clients to have medical conditions requiring the use of multiple medications that could have possible interactions. Using one pharmacy will ensure the pharmacist will discover any problematic interactions between multiple drugs.

Keeping a list available is important for unexpected trips to a healthcare facility.

The use of multiple drugs for multiple chronic conditions is a common cause for medication errors in older clients.

Polypharmacy is not unique to older clients, although it is most often seen in this group.

Knowing the names, dose, and possible side effects of medications will reduce the risk for medication errors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 7-7 Identify patient teaching information that can be used to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

While administering medications, a client says, "I've never taken that yellow pill before."  
Which action should the nurse take?

Tell the client that some are made by different pharmaceutical companies and may look different.

Reassure the client that the nurse has triple-checked the drug so it is safe to take.

Contact the health provider to verify it is the correct medication and dose.

Verify the order and double-check the label.

Answer: 4

Explanation:

The same medication produced by two different pharmaceutical companies may be a different shape, size, color, etc. However, the nurse should always verify the medication order and medication label.

Nurses should always check every medication three times before administering it to the client. However, when a client questions a medication, the nurse should always verify the medication order and medication label again before administering it to the client.

The nurse does not need to contact the healthcare provider at this time. Instead, the nurse should always verify the medication order and medication label again before administering it to the client. When a client questions a medication, the nurse should always verify the medication order and medication label again before administering it to the client to prevent medication errors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a

generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-5 Describe strategies the nurse can implement to reduce medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse works in the risk management office of a hospital. Which situation should the nurse expect to be included in this job?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Participating in the investigation of a sentinel medication event

Using the computer to track data

Working with staff nurses to identify work-flow problems

Meeting with the nurse executive to identify nurses who are prone to medication errors

Participating in a committee that will recommend changes to the policy and procedures regarding medication administration.

Answer: 1, 2, 3, 5

Explanation:

The risk management department investigates incidents.

Data management and tracking are a big part of the risk manager's job.

The risk management department is involved in identifying problems.

Risk management departments are not tasked with identifying and reporting on nurses.

The risk management department does work to make recommendations to improve policy and procedures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-8 Explain strategies used by healthcare organizations to reduce the number of medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The risk management department is using a root-cause analysis to improve a nursing unit's medication administration accuracy. Which question will be answered when using this tool?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"What kind of errors are occurring?"

"What is the current medication administration accuracy rate?"

"How do the unit nurses rank in the number of errors committed?"

"What do the nurses think can be done to prevent errors from continuing?"

"What is the impact of changes made to improve accuracy?"

Answer: 1, 2, 4, 5

Explanation:

Asking what kind of errors are occurring helps to answer the question, "Why did it happen?"

The current medication administration accuracy rate helps to determine what happened.

Ranking the nurses in order of number of errors is punitive and is not part of the risk management process.

Asking nurses for suggestions helps to answer the question, "What can be done to prevent it from happening again?"

The final question, "Has the risk of recurrence actually been reduced?", can be answered by asking what the impact of interventions has been.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and

standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a

generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-8 Explain strategies used by healthcare organizations to reduce the number of medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

The nurse learns that a medication error made the previous shift is determined to be a sentinel event. Which action should the nurse expect to occur?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Employment will be terminated.

Personal malpractice insurance company will be notified.

An immediate investigation will occur.

Interventions to prevent the error from occurring again will quickly be put in place.

A root-cause analysis will be performed.

Answer: 3, 4, 5

Explanation:

Termination may occur but is usually unlikely.

The hospital's malpractice insurance company may be notified, but the nurse is responsible for contacting personal companies.

The investigation into a sentinel event is immediate.

Interventions to prevent the error from happening again will be immediately put into place.

Root-cause analysis is typically used to investigate sentinel events.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 5.2

Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Commit to a generative safety culture. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 7-8 Explain strategies used by healthcare organizations to reduce the number of medication errors and incidents.

MNL Learning Outcome: Examine medication and risk reduction in drug administration.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 8 Drug Administration Throughout the Lifespan**

The nurse teaches a class about medication used during pregnancy to pregnant women. Which statement indicates to the nurse that additional teaching to the participants is required?

"The baby can only be harmed by medications during the first trimester."

"It is important to not take over-the-counter drugs during my pregnancy."

"Exposure to teratogens can result in my baby's death or in malformations."

"If I breastfeed my baby, drugs can come through my breast milk."

Answer: 1

Explanation:

A baby can be harmed by medication used throughout the period of gestation.

Over-the-counter drugs should be avoided during pregnancy.

Teratogens can cause fetal demise and congenital malformations.

Many drugs are transferred through breast milk.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate

outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A pregnant client planning to breastfeed asks the nurse about the use of herbal products during breastfeeding. Which response should the nurse make?

"Be sure to check the label to see if the herbal product could be used during breastfeeding."

"Most drugs can be transferred to the infant during breastfeeding, so this is not recommended."

"Herbal products are considered natural, so it should be fine to use them during breastfeeding."

"This should be fine, as long as there is at least 12 hours between the time you use the product and when you breastfeed."

Answer: 2

Explanation:

The bottle may not be labeled for breastfeeding, so the client should check with the nurse.

Over-the-counter herbal and dietary supplements should be avoided during lactation, unless specifically prescribed by the healthcare provider, because the safety of most of these products for the infant has not been determined.

Herbal products are drugs.

There is no safety time limit established between the use of the product and breastfeeding.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-4 Identify factors that influence the transfer of drugs into breast milk.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse plans to teach a safety class to parents of toddlers about household exposure to medications. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Keep the toddler awake and observe for side effects of the medication.

Keep all medications locked up and stored out of reach of the toddler.

Use syrup of ipecac immediately if the toddler has ingested medication.

Call the Poison Control Center for guidance with any medication ingested.

Teach the toddler that medications are for adult use only.

Answer: 2, 4

Explanation:

The Poison Control Center should be contacted, and they will advise if the child is to be kept awake.

Locking up medications is the safest way to childproof the home.

Syrup of ipecac should only be used if recommended by the Poison Control Center.

The Poison Control Center should be contacted for any type of medication the toddler has ingested.

It is unrealistic to expect a toddler to understand that medications are for adult use only.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nursing instructor teaches student nurses about the Food and Drug Administration (FDA) pregnancy categories. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

FDA Pregnancy Category C is safe to use during pregnancy.

FDA pregnancy categories provide a framework for safe use of drugs in pregnant women.

FDA pregnancy categories for individual drugs seldom change once they are established.

FDA pregnancy categories are based on studies using clinical human research trials.

FDA Pregnancy Category X has been associated with teratogenic effects.

Answer: 2, 5

Explanation:

Pregnancy Category C is not necessarily safe; it just means that animal studies have shown an adverse effect, but well-controlled studies in pregnant women have not been done.

FDA pregnancy categories provide a framework for safe use of drugs in pregnant women.

FDA pregnancy categories for individual drugs do change based on reported effects on fetuses.

FDA pregnancy categories are based on animal studies.

FDA Pregnancy Category X has been associated with teratogenic effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 8-3 Explain changes in drug labeling brought about by the Pregnancy and Lactation Labeling Rule.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse plans to administer medication to a preschool child. Which approach indicates the nurse has an understanding of growth and development?

The child is often more cooperative if the parent is not in the room.

The child does better with verbal instruction than with play instruction.

There should be no need to restrain a child of this age.

Use a brief rationale, followed by quick administration of the medication.

Answer: 4

Explanation:

Having a parent in the room usually promotes more cooperation from the preschool child.

Preschool children do better with play instruction.

It may be necessary to restrain a preschool child for medication administration.

A brief rationale, followed by quick administration, decreases the child's anxiety and promotes cooperation with the medication process.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse will administer medication to a school-age child. Which action should the nurse take?

Teach the child the action and expected side effects of the medication.

Tell the child going to recess will not be allowed if the medication is not taken.

Offer the child a choice of beverage with which to take the medication.

Offer to play with the child prior to medication administration.

Answer: 3

Explanation:

Teaching the child the action and expected side effects of the medication is too advanced for the school-age child.

Threatening a school-age child is antagonistic; the child will most likely not take the medication.

Offering the child a choice fosters cooperation and compliance.

Playing with the child is a preschool child activity.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Planning

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

An adolescent client comes to the school nurse with complaints of vague abdominal pain. Which statement by the student would help to confirm the nurse's suspicion that the adolescent has body image concerns?

"Everyone makes a big deal about what I eat, so don't ask."

"I have been sexually active with my boyfriend."

"My periods are irregular. Should I see a doctor?"

"I just can't seem to get along with my parents."

Answer: 1

Explanation:

The adolescent could have an eating disorder, which may result from altered body image.

Being sexually active with her boyfriend does not necessarily indicate an altered body image.

Irregular menses do not necessarily indicate an altered body image.

Arguments with parents do not necessarily indicate an altered body image.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Nursing Process: Assessment

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse provides care for older clients in an assisted living facility. Which information should the nurse recall as a primary contributing factor for drug toxicity in the older adult?

They often abuse alcohol.

They are frequently dehydrated.

They are frequently constipated.

They have decreased stomach acid.

Answer: 2

Explanation:

Alcohol abuse could be a factor in medication complications with older adults but is not as critical as another physiologic change.

Fluid deficit is a critical factor in the older adult that can contribute to medication toxicity.

Frequent constipation is not a critical factor with medication complications in older adults.

Older adults have a tendency for decreased stomach acid, which may interfere with medication absorption.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 8-8 Describe physiologic and biochemical changes that occur in the older adult and how these affect pharmacotherapy.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A pregnant client reports that prescribed medication is not as effective as it was before the pregnancy. Which response should the nurse make?

"This is because your blood volume has increased."

"Tell me how you have been taking your medication."

"This is because your baby is receiving part of the medication."

"Maybe the medication has expired; check the label."

Answer: 1

Explanation:

Increased blood volume results in hemodilution and increased excretion of the medication.

Asking the client how the medication is being taken is not the reason for the decrease in drug effects.

The medication effectiveness is not reduced because of the baby.

The medication has most likely not expired; most clients have it refilled monthly.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Nursing Process: Implementation

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A toddler refuses to take oral medication. Which suggestion should the nurse make to the parent?

"Offer to buy a new toy if the medication is taken."

"Crush the tablet and mix it with a small amount of jam."

"Crush the tablet and mix it with milk."

"Explain that punishment will occur if the medication is not taken."

Answer: 2

Explanation:

The parent should not buy the child's compliance with a toy.

Mixing the medication in jam will disguise the taste.

Parents should avoid placing medication in milk as this may cause the toddler to avoid healthy foods.

Punishment will alienate the child and decrease compliance.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

An adolescent needing medication for a health condition during school often does not go to the school nurse for the medication. In which way should the nurse assess this situation?

The adolescent is embarrassed in front of peers.

The adolescent does not understand the need for the medication.

The adolescent forgets about needing the medication.

The adolescent has made a conscious decision not to take the medication.

Answer: 1

Explanation:

Adolescents relate strongly to peers and are easily embarrassed; the adolescent does not want to be made fun of.

Most adolescents know why they are receiving medication.

The adolescent is most likely not forgetting the medication.

Most adolescents with a health condition understand the need to take the medication.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate

assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse teaches a support group for caretakers of older adult clients about medication compliance. Which response from a caretaker indicates that teaching was effective?

"We should crush their medicine and put it in applesauce so they will swallow it."

"We should use a medication management box so they won't forget to take it."

"We should ask the doctor if all the medication is really necessary."

"We should give them more education about the medicine so they will take it."

Answer: 2

Explanation:

Many older adults can swallow pills just fine, and many medications cannot be crushed.

Most older adult clients will be medication compliant if they have a way to remember to take the medication; a medication management box is an excellent idea.

Asking the healthcare provider about medications is fine, but this will not help the older adult client to remember when to take it.

The problem is not the education; it is that the older adults often forget what medication to take at what time.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 8-9 Develop nursing interventions that maximize pharmacotherapeutic outcomes in the older adult.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse cares for clients in an obstetric clinic. Which information should the nurse provide to pregnant clients about medication use?

Inhaled drugs may be absorbed to a greater extent.

Drug excretion rates are lowered.

Oral drug absorption rate is lowered.

Drugs should not be used during pregnancy.

Answer: 1

Explanation:

Progesterone causes changes in the respiratory system during pregnancy such as increased tidal volume and pulmonary vasodilation that may cause inhaled drugs to be absorbed to a greater extent.

Renal blood flow is increased, leading to higher excretion rates.

Gastric emptying is delayed, leading to prolonged oral drug absorption rates.

Some circumstances call for drug administration during pregnancy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is preparing to administer medications to a pregnant client. Which classification of drugs should the nurse refuse to administer?

Category A

Category B

Cautionary

Teratogenic

Answer: 4

Explanation:

Category A drugs are not known to cause birth defects.

Category B drugs are not known to cause birth defects.

Cautionary is not a term used to describe a drug that causes birth defects.

Drugs that are known to cause birth defects are called teratogenic or classified as Category D or Category X.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-3 Explain changes in drug labeling brought about by the Pregnancy and Lactation Labeling Rule.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is teaching a group of clients about actions to take before conception. At which stage of pregnancy should the nurse explain to avoid exposure to drugs?

Each stage is equal in risk

Preimplantation period

Third trimester

Embryonic

Answer: 4

Explanation:

The goal should be to minimize exposure to all drugs for the length of pregnancy, but exposure during some time periods is more critical than exposure at other times.

During the preimplantation phase, there is no direct link to the mother, so exposure to a teratogen either causes death or has no effect.

The third trimester falls in the fetal period when teratogen exposure is more likely to impair organ function or delay growth than to cause gross structural malformation.

The embryonic phase poses the greatest risk to fetal development as this is a time of rapid development of internal structures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the

absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nursing instructor is teaching nursing students about the Food and Drug Administration's pregnancy drug categories. Which category should the instructor explain that research has shown an adverse effect in animals but not in pregnant clients?

Category A

Category B

Category D

Category C

Answer: 2

Explanation:

Category A drugs have shown no adverse effects in women.

A drug that has adverse effects in animals but not in pregnant women is a Category B drug.

Category D drugs have demonstrated risk to pregnant women.

Category C drugs have had either no animal studies or adverse effects in animal studies with no adequate studies in women.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process:

Implementation; Teaching/Learning

Learning Outcome: 8-3 Explain changes in drug labeling brought about by the Pregnancy and Lactation Labeling Rule.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A client planning a pregnancy is concerned about drugs needed for a medical condition. Which of the client's drugs should cause the nurse the most concern?

A drug with a long half-life

A drug with no active metabolites

A drug with high protein-binding ability

A drug taken only when needed

Answer: 1

Explanation:

Drugs with long half-lives should be avoided because they can accumulate in the infant's plasma.

Drugs with active metabolites should be avoided because they can accumulate in the infant's plasma.

Drugs with high protein-binding ability are not secreted as readily to the milk.

If a drug is taken on an as-needed basis, the woman could schedule the drug to be taken immediately after breastfeeding.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 8-5 Identify techniques the breastfeeding mother can use to reduce drug exposure to the newborn.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A school-age client needs medication. Which action should the nurse take?

Allow the child to make decisions regarding how medications are taken.

Provide a brief explanation on why the medication is important.

Administer drugs while holding the child down.

Provide a lengthy explanation followed by quick drug administration.

Answer: 1

Explanation:

Allowing the child to become a participant in the process of medication administration is important for this age group.

At this age, more detail can be included in explanations about the drug.

At this age, it is unlikely the child will need to be restrained.

Lengthy explanations are more appropriate for adolescents.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is asked how pharmacotherapy in the older adult is different than a middle-aged adult. Which response should the nurse make?

"Increased body water can lead to a higher risk of drug toxicity."

"Plasma levels are increased, leading to a heightened drug response."

"Generally, drug doses should be increased due to prolonged drug metabolism."

"Drug absorption is slower due to increased gastric pH."

Answer: 4

Explanation:

Body water is reduced, leading to a higher risk of drug toxicity.

Plasma levels are lower, causing a diminished drug response.

Generally, drug doses are reduced because of prolonged drug metabolism.

Older adults have an increase in gastric pH, which slows absorption.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-8 Describe physiologic and biochemical changes that occur in the older adult and how these affect pharmacotherapy.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A client who takes 10 medications, three of which are new, is experiencing hypotension and bradycardia. Which situation should the nurse consider for this client?

The client is having an allergic reaction to one of the new medications.

The client is experiencing adverse reactions as a result of polypharmacy.

The client is not in compliance with her prescribed medications.

The client is experiencing an adverse effect that will go away in time.

Answer: 2

Explanation:

Bradycardia and hypotension do not necessarily indicate an allergic reaction.

Polypharmacy increases the risk of drug interactions and side effects.

The information provided does not reveal anything about client compliance.

It is not appropriate to assume the side effects will go away.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 8-9 Develop nursing interventions that maximize pharmacotherapeutic outcomes in the older adult.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse cares for pregnant clients in the community clinic. Which condition should the nurse expect to be managed with drugs during pregnancy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Epilepsy

Multiple sclerosis

Sexually transmitted infections

Gestational diabetes

Hypertension

Answer: 1, 3, 4, 5

Explanation:

Epilepsy is a preexisting disease. It would not be wise to discontinue therapy during pregnancy and lactation.

Multiple sclerosis may be treated with ozanimod, which is a serious risk to the fetus.

Sexually transmitted infections can harm the fetus.

Gestational diabetes is a complication related to pregnancy that must be treated for the safety of both the mother and growing fetus.

If hypertension is present prior to pregnancy, it would be unwise to discontinue therapy during pregnancy and lactation.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is preparing a teaching plan for a postpartum client. Which information about medications during breastfeeding should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Most medications are secreted into breast milk.

Dietary supplements should be avoided.

Herbal products are secreted into breast milk and have the potential to cause harm to the infant.

All tobacco products should be avoided.

Most drugs are safe to take right after breastfeeding because they will clear the bloodstream prior to the next feeding.

Answer: 1, 2, 3, 4

Explanation:

The majority of drugs are secreted into breast milk.

The safety of these products has not been determined.

Over-the-counter drugs can be secreted into breast milk and have the potential to harm the infant. All products should be approved by the provider prior to use.

Tobacco products should be avoided during lactation.

Drugs should only be taken during breastfeeding if the benefits to the mother outweigh the risks to the infant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 8-5 Identify techniques the breastfeeding mother can use to reduce drug exposure to the newborn.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is planning care for a pregnant client prone to substance abuse. Which response should the nurse make when the client believes the substances will not harm the fetus?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Most illicit drugs will cross the placenta and hurt the baby."

"Drugs may work longer in your baby."

"Some drugs result in your baby not growing enough."

"You are correct. You are far enough along in your pregnancy that drugs will not harm your baby."

"If you continue to take drugs, it will make you have a large infant."

Answer: 1, 2, 3

Explanation:

Most illicit drugs cross the placenta and can cause premature birth, low birth weight, birth defects, and withdrawal symptoms.

Because the fetus lacks mature metabolic enzymes and efficient excretion mechanisms, drugs will have a prolonged duration of action within the unborn child.

Some drugs result in intrauterine growth retardation.

The effect the drug has on the fetus will depend on the stage of fetal development. There is a greater potential for harm during the first trimester, but nutrients to the fetus can be compromised by drug abuse during the latter stages of pregnancy.

Taking illicit drugs during pregnancy will not increase fetal growth and lead to a large infant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

A pregnant client continues to smoke cigarettes. Which potential complication should the nurse explain to the client can occur in the developing fetus?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Preterm birth

Low birth weight

Birth defects

Allergies to narcotics

Increased labor

Answer: 1, 2, 3

Explanation:

Tobacco can increase the risk of premature delivery.

Tobacco can increase the risk of low-birth-weight infants.

Tobacco may increase the risk of birth defects such as cleft lip or cleft palate.

No research suggests that tobacco use can cause allergies to narcotics.

No research suggests that tobacco use can cause increased labor.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse cares for a client in the obstetrical community clinic. Which client should the nurse expect the healthcare provider to continue prescribed medications during pregnancy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The client recently diagnosed with gonorrhea

The client with a mental health disorder

The client with hypertension

The client with frequent insomnia

The client with a family history of stroke

Answer: 1, 2, 3

Explanation:

Sexually transmitted infections are treated during pregnancy.

A mental health disorder would be treated during pregnancy.

Hypertension is treated during pregnancy.

Insomnia would not be treated during pregnancy.

This client would not be treated unless there is a history of stroke.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 8-2 Identify physiologic changes during pregnancy that may affect the absorption, distribution, metabolism, and excretion of drugs.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is conducting an initial prenatal assessment with a pregnant client. For which medication should the nurse immediately inform the healthcare provider?

Risperidone

Iron

Guaifenesin

Acetaminophen

Answer: 1

Explanation:

Risperidone causes withdrawal symptoms in a newborn and should be avoided during the third trimester of pregnancy.

Iron is not considered harmful to the developing fetus.

Guaifenesin is not identified as a medication that is harmful to a fetus.

Acetaminophen is not identified as a medication that is harmful to a fetus.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-4 Identify factors that influence the transfer of drugs into breast milk.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

An older client is taking a new medication. Which laboratory value should the nurse review prior to administering the medication to the client?

Liver function

Serum glucose level

White blood cell count

Serum potassium level

Answer: 1

Explanation:

In an older client, enzyme production in the liver decreases and the visceral blood flow is diminished, resulting in reduced hepatic drug metabolism. This change leads to an increase in the half-life of many drugs, which prolongs and intensifies drug response. The decline in hepatic function reduces first-pass metabolism.

Serum glucose level is not an essential laboratory value to review prior to administering medication to an older client.

White blood cell count is not an essential laboratory value to review prior to administering medication to an older client.

Serum potassium level is not an essential laboratory value to review prior to administering medication to an older client.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 8-8 Describe physiologic and biochemical changes that occur in the older adult and how these affect pharmacotherapy.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse provides discharge medication instructions to the parents of a toddler. Which statement should indicate to the nurse that teaching provided to the parents was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I should give this antibiotic as prescribed until the bottle is empty."

"I should use a spoon to give this medication."

"I will keep this medication in the refrigerator as the label directs."

"If my child develops any adverse effects, I will discard the rest of the medicine."

"This antibiotic should help to clear my child's infection."

Answer: 1, 3, 5

Explanation:

Antibiotics should be given until the medication is gone.

Medications should be administered with standard devices, not household objects.

The label will designate storage instruction.

The parent should notify the prescriber, not just discard the medication.

The parents should understand the reason the medication is being prescribed.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate

outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 8-7 Discuss the nursing and pharmacologic implications associated with infants, toddlers, preschoolers, and adolescents.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse is reviewing medication records of older adults living in extended care. Which concept about the pharmacotherapy of older adults should the nurse consider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Plasma-binding of drugs is greater in those over age 65.

Drug distribution is slowed in the older adult.

The half-life of many drugs is lessened in older adults.

First-pass metabolism is reduced in the older adult.

Changes in the kidney may result in decreased drug excretion.

Answer: 2, 4, 5

Explanation:

The aging liver produces less albumin, resulting in decreased plasma protein-binding ability and increased levels of free drug in the bloodstream.

The aging cardiovascular system has decreased cardiac output and less efficient blood circulation, which slows drug distribution.

Enzyme production in the liver is decreased and the visceral blood flow is diminished, resulting in reduced hepatic drug metabolism and increased drug half-life.

The decline in hepatic function reduces first-pass metabolism.

Changes in the kidney result in decreased drug excretion.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 8-8 Describe physiologic and biochemical changes that occur in the older adult and how these affect pharmacotherapy.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

The nurse provides medication teaching to a client with a hearing deficit. Which action should the nurse take?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Speak a bit slower than normal.

Speak more loudly than normal.

Ensure that verbal and nonverbal communication is congruent.

Allow extra time for communication.

Use bright lighting in the room.

Answer: 1, 3, 4

Explanation:

Speaking clearly and slowly is beneficial when communicating with those with hearing impairment.

It is not necessary to speak loudly.

Use of gestures and body language is important, but incongruence between verbal and nonverbal communication can be very confusing for those with impaired hearing.

It is important to allow adequate time for communication and responses.

Adequate lighting is necessary in any client encounter, but bright lighting is not always necessary. The presence of good lighting is not made more essential because the client has a hearing impairment.

Page Ref: 91-92

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 8-9 Develop nursing interventions that maximize pharmacotherapeutic outcomes in the older adult.

MNL Learning Outcome: Examine the issues related to drug administration across the lifespan.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 9 Individual Variations in Drug Response**

The nurse is doing a holistic assessment on a client prior to starting antihypertensive medication. Which data should the nurse include in the assessment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Blood pressure

Biologic cause of hypertension

Mood

Level of education

Belief in a higher power

Answer: 1, 3, 4, 5

Explanation:

Holistic healthcare incorporates the whole client to include the biological (blood pressure) dimension.

The biologic cause of hypertension focuses on a specific disease, its cause, and treatment; this is a medical model, not a holistic model.

Holistic healthcare incorporates the whole client to include the psychological (mood) dimension.

Holistic healthcare incorporates the whole client to include the sociocultural (level of education) dimension.

Holistic healthcare incorporates the whole client to include the spiritual (belief in a higher power) dimension.

Page Ref: 96

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 9-1 Describe why a holistic approach to patient care is important to achieving effective pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

An adolescent client with attention-deficit/hyperactivity disorder (ADHD) is taking methylphenidate (Ritalin) but will not go to the school nurse's office at noon for the medication. In which way should the nurse characterize the client's behavior?

Has developed alternative coping mechanisms to increase focus during classes.

Is fearful that this drug may be a "gateway drug" and therefore will abuse other substances.

Believes that an additional dose of the medication at school is not needed.

Views the medication as a social stigma that causes embarrassment

Answer: 4

Explanation:

ADHD is a brain-based disorder, and the primary treatment is medication; alternative coping mechanisms will not usually help to increase focus during classes.

Appropriate treatment of ADHD will result in less addiction to mood-altering substances, not more addiction.

Methylphenidate is a short-acting drug and doses must be administered about 4 hours apart, so the client must receive a dose during school hours.

Some clients believe that having to take drugs in school will cause them to be viewed as weak, unhealthy, or dependent. Clients can also perceive this as a social stigma.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Relationship-Centered Care:

Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 9-2 Identify psychosocial factors that can affect pharmacotherapeutics.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client from an Arab culture is in active labor and the partner who is at the bedside refuses analgesia for the client. Which action should the nurse take?

State it is the client's choice to have analgesia.

Ask the partner to sign a release of responsibility to avoid future litigation against the hospital.

Explain that the healthcare provider will make the final decision about analgesia.

Allow this request and be available in the event the request changes.

Answer: 4

Explanation:

With some cultures, the male partner makes the choices, not the female partner.

When cultural differences are allowed and supported, clients are not as likely to become involved in litigation.

With some cultures, the male partner makes the choices, not the healthcare provider.

Nurses must allow and support cultural differences. The partner's decisions must be respected as long as client safety is not involved, and it is not involved in this situation.

Page Ref: 97

Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client with cancer believes the diagnosis is a punishment from God and is questioning chemotherapy. Which action should the nurse take after receiving permission from the client?

Involve a hospital minister to discuss the client's perspective about cancer.

Plan to bring the case before the hospital's board of ethics.

Contact the client's minister to discuss the client's perspective about cancer.

Meet with family members to discuss the client's perspective about cancer.

Answer: 3

Explanation:

Involving a hospital minister may be an option, but it is best to work through the client's minister initially.

Bringing the case before the hospital's board of ethics is premature at this point.

When clients have strong religious beliefs, these can affect the outcome of the illness. The nurse should involve the client's religious leader when possible.

Meeting with family might help; however, they may have the same perspective as the client.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Relationship-Centered Care:

Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client of African descent with suicidal tendencies from panic attacks refuses medication but rather would like herbs and African objects in the room to "remove the curse." Which action should the nurse take?

Allow the request without seeking further information from the client.

Allow the request as long as the herbs and objects do not pose a safety risk for the client or other clients.

Allow the request after the client signs a release of responsibility to avoid litigation.

Allow the request after all members of the treatment team agree to it.

Answer: 2

Explanation:

To allow an ethnic request without seeking further information about safety could jeopardize client safety.

Nurses must grant ethnic requests as long as the request does not pose a safety risk to the client or others.

There is no need for the client to sign a release of responsibility to avoid litigation; if items pose a safety risk, they cannot be allowed on the unit.

The treatment team does not need to agree to this request; the nurse can approve it as long as the items do not pose a safety risk.

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Cognitive Level: Applying

Client Need/Sub: Basic Care and Comfort

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The public health nurse notices that several clients in the hypertension clinic have poorly controlled hypertension, even though they have been prescribed appropriate antihypertensive drugs. Which question should the nurse ask to assess these clients?

"Does your religion allow the use of high blood pressure medication?"

"Do you think your high blood pressure is a problem?"

"Can you afford the high blood pressure medication?"

"Does your culture use herbs to treat high blood pressure?"

Answer: 3

Explanation:

Religious beliefs could result in the client not taking the medication, but the cost of the medication is more likely the problem.

To ask a client if they think hypertension is a problem should not be necessary; the nurse could eliminate this by appropriate medication education when the medication is prescribed for the client.

Once treatment is rendered, the cost of prescription drugs may be far too high for clients on limited incomes.

The use of herbs may be important in the client's culture, but the cost of the medication is more likely the problem.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client of Asian descent is prescribed codeine for pain management. Which action should the nurse take?

Provide the medication to the client.

Instruct the client about the medication.

Assess if the client agrees to taking the medication.

Discuss the choice of medication with the healthcare provider.

Answer: 4

Explanation:

Clients of Asian descent may carry genetic mutations that make them poor metabolizers of codeine, which reduces the analgesic effect.

Teaching the client about the medication would be premature because the medication will not be an effective pain medication for the client.

There is no need to assess if the client agrees to taking the medication.

Clients of Asian descent will experience less or no analgesic effect because codeine is not metabolized to morphine. The choice of pain medication should be discussed with the healthcare provider.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse completes a holistic assessment of a client with alcoholism. Which question should the nurse ask?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"How is drinking alcohol viewed by your culture?"

"Have you ever attended Alcoholics Anonymous meetings?"

"Did you see your parents drinking alcohol when you were growing up?"

"Have you been in alcohol rehabilitation before now?"

"Do you have any blood relatives with the same problem?"

Answer: 1, 3, 5

Explanation:

Cultural questions are valid questions to ask during a holistic assessment.

Participation in Alcoholics Anonymous meetings refers to treatment and does not have relevance to a holistic assessment.

Environmental questions are valid questions to ask during a holistic assessment.

Participation in a rehabilitation program refers to treatment and does not have relevance to a holistic assessment.

Biological questions are valid questions to ask during a holistic assessment.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 9-1 Describe why a holistic approach to patient care is important to achieving effective pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client from the American Indian culture has many guests visiting. In which way should the nurse's behavior be categorized when saying the number of visitors is limited to two at a time? The client's preferences regarding the number of visitors should have been assessed. The healthcare provider should have been asked for an order for additional visitors to be present. This was the correct action because the nurse is following organizational policy. The client should be allowed to have as many visitors as they arrive.

Answer: 1

Explanation:

The nurse should have assessed the client's preference about the number of visitors the client wants before so strictly interpreting the hospital rules.

This situation could be resolved by the nurse; there is no need for a healthcare provider's order at this point.

Many hospital rules, such as how many visitors are allowed, are flexible and do not have to be strictly interpreted.

The nurse must be realistic with regard to the number of family visitors the client wants present; five family members is acceptable; 20 would be too many.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client receiving chemotherapy as treatment for cancer asks if the medication will cause hair loss. Which response should the nurse make?

"We are not really sure; applying an ice bag to your head may help."

"Don't worry, we can recommend an excellent wig company if need be."

"Yes, that is one of the expected side effects of this medication."

"It might. Have you discussed this with your healthcare provider?"

Answer: 3

Explanation:

Ice bags can minimize hair loss with some clients, but the nurse is not honestly answering the client's question.

Telling a client not to worry is one of the most nontherapeutic responses a nurse can make.

The nurse must always be forthright in explaining drug actions and potential side effects; minimizing potential adverse effects can result in distrust of the nurse.

In this case, the nurse, not the health care provider, is responsible for answering the client's questions.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Implementation

Learning Outcome: 9-2 Identify psychosocial factors that can affect pharmacotherapeutics.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client with sepsis after an elective abortion refuses antibiotics and says, "I don't deserve them." Which response should the nurse make?

"I think you need to do what is best for you."

"You have a serious infection and really need the drug."

"It seems you think you should be punished because you had an abortion."

"I'll call your healthcare provider and report your decision."

Answer: 2

Explanation:

Telling the client to do what is best is inappropriate; the nurse knows she needs the drug.

Telling the client the drug is providing the best care possible; this must be done even though the nurse's beliefs may be different from the client's.

Saying the client should be punished is not appropriate.

Calling the healthcare provider is inappropriate; the nurse knows the client needs the drug.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Implementation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client of African descent is recovering from an acute myocardial infarction. Which action should the nurse take after learning the client routinely ingests a high-fat diet?

Ask a Black nurse to speak to talk to the diet about a low-fat diet.

Discuss the client's diet with whomever prepares meals for the family.

Give the client information specific to African Americans about low-fat diets.

Obtain a consult for dietary services so a dietician can teach the client about low-fat diets.

Answer: 2

Explanation:

Asking a Black nurse to speak to the client is racist and implies that the nurse cannot understand the dietary needs of the client.

Every culture has culture-specific diets; the nurse must include the person in the family who does the meal preparation if a different diet is to be successful.

Providing information is a good idea, but the nurse must also teach the client.

At this point, a consult with dietary services is premature.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client who received printed information about a new medication is not taking the medication as prescribed. Which question should the nurse ask the client?

"Do I have to inform your healthcare provider about your noncompliance?"

"Why didn't you take your medicine as we talked about?"

"Are you able to read and comprehend the printed information?"

"Don't you understand how important it is to take the medicine?"

Answer: 3

Explanation:

It is inappropriate to involve the healthcare provider before the nurse assesses the reason for noncompliance, and this question is threatening.

Asking "why" questions puts the client on the defensive, and the nurse might not receive the most accurate answer.

Many English-speaking clients do not have functional literacy, a basic ability to read, understand, and act on health information. The nurse should ask the client about the ability to read and understand printed information.

Being confrontational with a "don't you understand" question is as demeaning as asking a "why" question.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is caring for clients receiving chemotherapy. Which client should the nurse evaluate as having the highest probability for a remission?

The client with a support group of cancer survivors

The client who is also seeing a psychiatrist for treatment of depression

The wealthy client who can afford the best medical care available

The client who is a former healthcare provider

Answer: 1

Explanation:

Positive attitudes and high expectations toward therapeutic outcomes in the client may influence the success of pharmacotherapy. The support group of cancer survivors would provide the best support and the highest probability for a positive outcome.

Treatment for depression might help the outcome, but this client would not have as high a probability for remission as the client with another resource.

A wealthy client can afford the best medical care but may not have good psychosocial support.

A former healthcare provider may have a sound knowledge base about cancer, but this client might not have good psychosocial support.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Relationship-Centered Care:

Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 9-2 Identify psychosocial factors that can affect pharmacotherapeutics.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is teaching a community group about holistic medicine. Which information should the nurse include about Western medicine?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Western medicine focuses on the cause of disease.

Western medicine is not compatible with holistic medicine.

The client is at the center of concern in Western medicine.

Disease is often viewed as a malfunction in a specific body system.

Western medicine may focus on disease treatment.

Answer: 1, 4, 5

Explanation:

Western medicine often focuses on determining which disease is present and its cause.

Western medicine is compatible with holistic medicine, but this requires that those providing care remain mindful of the individuality of the client.

Disease and treatment are typically at the center of Western medicine.

In Western medicine, disease is often viewed as a specific malfunction of a body part.

Western medicine often focuses on the treatment of a disease, not the care of the client with the disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 9-1 Describe why a holistic approach to patient care is important to achieving effective pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is teaching a group of student nurses. Which ethnic characteristic should the nurse include that affects pharmacotherapy?

Genetic differences

Diet

Health beliefs

Alternative therapies

Answer: 1

Explanation:

Ethnicity relates to biology and genetics.

Diet is a cultural characteristic.

Health belief is a cultural characteristic.

Alternative therapies are cultural characteristics.

Page Ref: 97

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The manager observes a nurse care for a client from a different culture. Which statement indicates the nurse provides culturally competent care?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Since all of our clients have the same illnesses, I sometimes get bored."

"I have been helping my client understand how to choose foods from our diet menu."

"I am concerned because my client needs sterile dressing changes but has no running water at home."

"My client and I worked out a way to get medications delivered at home."

"I invited a group from my church to come and sing hymns for our clients."

Answer: 2, 3, 4

Explanation:

The nurse who believes that clients who have the same illness are alike is not seeing their psychosocial needs.

Helping the client cope and navigate through the hospital "culture" is a culturally sensitive action.

Cultural sensitivity takes environment into consideration.

Helping the client cope and navigate through potential blockers to medication adherence is a culturally sensitive action.

Imposing one's own religious beliefs on others is not culturally sensitive.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Evaluation

Learning Outcome: 9-1 Describe why a holistic approach to patient care is important to achieving effective pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nursing instructor is teaching a student about human DNA sequences. Which statement indicates that teaching provided to the student was effective?

"Only 2% of human DNA is different among the different ethnicities."

"Due to enzyme polymorphism, Hispanics are less likely to metabolize codeine to morphine."

"Even though human genetic differences are small, significant differences can be seen with drug metabolism."

"Asian Americans are the ethnic group known to be slow acetylators."

Answer: 3

Explanation:

Human DNA differences of only 0.2% can produce significant differences in the way drugs are handled within the body.

Asian Americans are less likely to metabolize codeine to morphine.

Human DNA differences of only 0.2% can produce significant differences in the way drugs are handled within the body.

Caucasians are known to be slow acetylators.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A nursing student asks the nurse how gender influences pharmacology. How should the nurse respond?

Women tend to seek medical care earlier than men do.

Heart disease has traditionally been thought of as a woman's disease.

The Food and Drug Administration (FDA) has mandated that research studies include both male and female subjects.

Studies indicate that men and women suffer from Alzheimer disease in equal numbers.

Answer: 3

Explanation:

There is no evidence that women are quicker to seek medical care than are men.

Cardiac disease has traditionally been thought of as a men's issue.

The FDA mandated that research studies include both male and female subjects because of different responses to medications.

Studies indicate that more women than men suffer from Alzheimer disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Implementation

Learning Outcome: 9-5 Relate the implications of sex and gender to the actions of certain drugs.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is caring for several clients. Which client has a psychosocial history that may affect their outcome?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Older adult who recently suffered a stroke, has an unsteady gait, and lives in a two-story home

Middle-aged client with Down syndrome living in a group home

Recently divorced mother of three children with breast cancer

Sixteen-year-old requesting birth control without parental consent

Seven-year-old with asthma in a foster care home

Answer: 1, 2, 3

Explanation:

This client may not be able to return to a home that requires climbing stairs.

A client with Down syndrome needs additional care to ensure that treatment outcome is successful.

This client may be the family's sole provider and may have financial concerns.

Many teens seek contraception without their parents' consent; this should not have a negative impact on outcome.

Residing in foster care should not have a negative impact on outcome.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 9-4 Explain how community and environmental factors can affect healthcare outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client in a clinical study is surprised that there are men and women of different racial-ethnic groups participating. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Clinical trials failed to include ethnically diverse subjects.

Clinical trials comprised mostly White males.

Little attention was focused on identifying the different effects drugs had on various racial-ethnic groups.

Research proved there were no differences among racial-ethnic groups.

The large majority of clinical trials included White females.

Answer: 1, 2, 3

Explanation:

There was a lack of ethnic diversity in early clinical trials.

Until recently, clinical trials comprised mostly White males.

Little attention was focused on identifying the differences in pharmacologic effects in diverse racial-ethnic groups.

There was insufficient research to show differences because little attention was focused on these differences.

The large majority of clinical trials excluded females.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-3 Explain how culture and ethnicity can affect pharmacotherapeutic outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse in the emergency department is caring for several clients from diverse cultures. Which statement demonstrates that the nurse is providing culturally competent care?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I understand your religion prohibits blood transfusions. Would you consider nonblood alternatives?"

"I just want to make sure you and your partner understand the risks as you consider the options."

"I don't really understand why you are afraid to take the medication. Do you have any questions I can answer to alleviate your fear?"

"I really don't understand why you won't consider an abortion. Your admission papers say you are an atheist."

"I'm not quite sure why the healthcare provider is giving you these prescriptions. You didn't get them filled the last time you were here."

Answer: 1, 2, 3

Explanation:

This statement shows the nurse is respectful of religious beliefs and open to offering alternative treatment.

This statement shows the nurse is accepting of the client's beliefs.

This statement may encourage the client to open up to the nurse about fears.

This is a judgmental and insensitive comment. A culturally competent nurse is sensitive to the client's spiritual beliefs or lack thereof.

This statement does not consider social factors that may contribute to nonadherence.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse visits the homes of ethnically diverse clients. Which intervention indicates the client is providing culturally competent care?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Discussing cultural preferences for herbs and spices and possible alternatives when drug interactions are possible

Assessing the client's response to acupuncture for pain

Discussing the client's beliefs regarding treatment

Notifying the healthcare provider of the client's intentions to consult with a medicine man for spiritual guidance

Removing the client's collection of herbs to decrease the risk of an adverse effect when taken with Western medicine

Answer: 1, 2, 3

Explanation:

It is important to assess the cultural use of herbs and spices and determine if there may be any interactions with prescribed medications.

The nurse can assess the client's response to acupuncture and interpret the effects on prescribed treatment with respect for the client's culture.

Different cultures view health and wellness in different ways. An understanding of the client's cultural beliefs allows the nurse to provide better support and guidance.

As long as the medicine man does not "prescribe" any herbs, the nurse does not have to discuss this with the provider.

The nurse need not remove the herbs but rather should discuss possible adverse effects when they are mixed with prescribed medications.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client asks why a prescribed medication was not effective for a health problem. Which statement should the nurse make that describes how genetics influence drug action?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Genetic differences can result in significant differences in how each client's body handles the same medication."

"Genetic differences can cause mutations in enzymes, changing the way they function. This can alter how the body metabolizes and excretes drugs."

"Because of genetic differences, medication may accumulate to toxic levels in one client while in another client may be inactivated before it can have a therapeutic effect."

"Genetic differences can be expressed as an alteration in the structure of an enzyme, which can cause a defective receptor and an allergic response to drugs."

"Genetic differences in clients who are biracial result in an allergic response to medications."

Answer: 1, 2, 3

Explanation:

DNA sequences are identical in 98.8% of humans. The remaining 0.2% can account for significant differences in people's ability to handle medications.

The structure of an enzyme is closely related to its function. A mutation can cause a change in the structure of the enzyme, resulting in a change in its function.

When enzymes are functionally changed by genetics, metabolism and excretion can be altered, resulting in the drug either accumulating or being inactivated.

Small changes in the structure of a protein may result in a defective receptor that will not accept the drug and the drug not having any therapeutic effect. This is not an allergic response.

Genetic differences can result in mutations of enzymes or proteins, which may result in changes in function. Being of a certain race may predispose a client to mutations and, therefore, uncommon responses to medication, but this does not mean the client will have an allergic response to medications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is caring for a group of patients. Which client should the nurse provide additional information to enhance medication adherence?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Fifty-year-old recently remarried male taking antihypertensive medication

Thirty-four-year-old female with family history of blood clots taking an estrogen oral contraceptive

Thirty-eight-year-old male recently started on an antidepressant

Twenty-eight-year-old female started on acne medication known to cause male-patterned hair growth

Seventy-eight-year-old female being treated for shingles

Answer: 1, 2, 3, 4

Explanation:

Antihypertensive medications can cause impotence. This client will need additional education about this possible side effect.

Estrogen can cause an increased risk for thrombotic events, especially in clients who have a positive family history.

Taking an antidepressant may result in the man feeling weak, unhealthy, or dependent.

Some acne medications cause increased hair growth in a male pattern, such as on the face. While controlling acne is a goal, the client may not want the extra hair growth.

There is no indication that treatment for shingles requires education in excess of that which is generally provided.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client who is vegan is prescribed a medication contained in a gelatin capsule made from animal products. Which action should the nurse take?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Do not tell the client the capsule contains gelatin.

Collaborate with the prescriber to find an alternative medication.

Check to see if the capsule can be opened for administration.

Work to convince the client that this application does not violate vegan beliefs.

Tell the client that the gelatin is an inactive ingredient in the medication.

Answer: 2, 3

Explanation:

Withholding information regarding the medication is not ethical.

An alternative dosage form that does not require use of a gelatin capsule may be available.

Many capsules can be opened and the contents can be placed in fluid or on soft food for administration.

If the client is strictly vegan, the use of a gelatin capsule is a violation of belief. The nurse should not try to influence the client otherwise.

Whether the gelatin is an active or an inactive ingredient is not relevant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 9-2 Identify psychosocial factors that can affect pharmacotherapeutics.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is caring for a group of clients. Which statements should the nurse evaluate as negatively affecting access to healthcare?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

An older adult says, "If I tell my doctor that I fall frequently, I might have to go to a nursing home."

A young adult says, "A benefit of my new job is that it pays for my health, dental, and vision insurance."

A client being discharged says, "Can you call my prescriptions in to the pharmacy?"

The client's new insurance plan requires a \$10 copay for office visits.

A client asks to be discharged before noon because of having a 3-hour drive home.

Answer: 1, 4, 5

Explanation:

The older adult may not reveal a fall history out of concern for loss of independence and a change in living conditions.

Having a job that pays insurance helps ensure access.

Being able to call prescriptions in to the pharmacy helps ensure access.

Even a low-cost copay may be difficult for some clients to afford.

Living long distances from healthcare sources decreases access.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 9-4 Explain how community and environmental factors can affect healthcare outcomes.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse is providing health promotion information to a women's club. Which information should the nurse include in this presentation?

Diabetes is a women's health issue like osteoporosis.

Oral contraceptives do not interact with other medications.

Effectiveness of medications is the same in men and women.

Some medications can cause side effects that are specific to men or women.

Answer: 4

Explanation:

Alzheimer disease is becoming recognized as a major women's health issue because 1.5 to 3 times as many women suffer from the disease.

Oral contraceptives interfere with many medications such as benzodiazepines.

The effectiveness of medications differs between men and women due to hormone secretion or body composition.

Adherence to medication regimens may be influenced by sex because the side effects are specific to either men or women.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies:

Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated

Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 9-5 Relate the implications of sex and gender to the actions of certain drugs.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

A client's genetic testing indicates the presence of a genetic polymorphism of the CYP 450 enzyme. In which way should the nurse expect the enzyme to affect the metabolism of medication?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

No effect

Increase

Decrease

Potentiate toxicity

Enhance excretion

Answer: 2, 3

Explanation:

The genetic polymorphism of the CYP 450 enzyme will affect drug metabolism.

The genetic polymorphism of the CYP 450 enzyme can enhance or increase metabolism.

The genetic polymorphism of the CYP 450 enzyme can decrease or delay metabolism.

There is no evidence that the genetic polymorphism of the CYP 450 enzyme will potentiate toxicity.

There is no evidence that the genetic polymorphism of the CYP 450 enzyme will enhance drug excretion.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and

Competencies: 2.5 Develop a plan of care. | NLN Competencies: Relationship-Centered Care:

Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

The nurse reviews information prior to giving a new medication to a client. For which FDA classification should genetic testing be considered before giving the medication to the client?

Testing required

Testing recommended

Actionable pharmacogenetics

Informative pharmacogenetics

Answer: 2

Explanation:

Genetic testing should be conducted if the FDA classifies the medication as testing required.

Genetic testing should be considered if the FDA classifies the medication as testing recommended.

Changes in effectiveness, dosage, or metabolism may occur if the FDA classifies the medication as actionable pharmacogenetics.

Some pharmacogenetic data are available but are not significant enough to change the effectiveness, dosage, or metabolism of the drug; it should be considered if the FDA classifies the medication as informative pharmacogenetics.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences; values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; transitions and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Relationship-Centered Care: Respect the patient's dignity, uniqueness, integrity and self-determination, and his or her own power and self-healing process. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 9-6 Convey how genetic factors can influence pharmacotherapy.

MNL Learning Outcome: Examine the influences that affect how an individual responds to drug therapy.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 10 The Role of Complementary and Alternative Therapies in Pharmacology**

A client asks for spirituality and prayer to be included in the plan of care. Which response should the nurse make?

"We will include spirituality in your plan. Would you like to say a prayer?"

"I think your spiritual concerns are best left up to you and your minister."

"What exactly do you mean by spirituality and prayer?"

"We usually do not pray with clients; is there something you are worried about?"

Answer: 1

Explanation:

Complementary and alternative medicine tends to include the "whole person" more than traditional medicine does. The nurse should offer to pray with the client if the client requests this. Refusing to acknowledge the client's spiritual concerns, and referring to the client's minister, does not treat the "whole person." Asking the client to clarify what they mean by spirituality and prayer could be appropriate but is not the best response.

Asking the client to clarify what they mean by spirituality and prayer could be appropriate but is

not the best answer.

Telling the client that the nurse does not usually pray with clients will discourage the client from discussing spirituality.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-1 Identify the four primary complementary health approaches and give examples of each.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse plans to teach clients about the difference between herbal preparations and prescription medications. Which statement describes the best plan by the nurse?

"Herbs, like prescription drugs, usually only contain one active ingredient."

"The active ingredients in an herb, unlike prescription drugs, may be present in just one part or many parts."

"Most herbs, like prescription drugs, are standardized and regulated by the Food and Drug Administration."

"Herbs are considered to be safer than prescription medications as they are natural."

Answer: 2

Explanation:

Herbs may actually contain dozens of active chemicals, not just one.

Unlike prescription drugs, the active ingredients in an herb may be present in just one part or many parts.

Most herbs have not been standardized and are not regulated by the Food and Drug Administration.

Herbs are not necessarily safer than prescription medications; they are medications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.5 Describe factors that create a culture of safety (such as, open communication strategies and organizational error reporting systems). | AACN Domains and

Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 10-3 Describe how the strength and dosage of herbal products are measured.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client plans to take St. John's wort to treat depression. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"That should be fine as long as you are not suicidal."

"St. John's wort is successfully used in Europe for minor depression."

"It would be a good idea to try this before paying for a prescription medication."

"It would be better to have a psychiatric assessment first."

"Herbal preparations can interact with many other medications."

Answer: 4, 5

Explanation:

The suicidality of the client should not be a determining factor with using St. John's wort.

Even though St. John's wort has been found to treat mild to moderate depression, this does not mean it is appropriate for this client.

The cost of the prescription medication should not be a determining factor.

Anyone who is depressed should have a psychiatric assessment prior to starting any type of medication.

Herbal preparations do interact with many other medications and can have serious adverse side effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client reports taking herbal supplements to boost the immune system but cannot recall the names of the supplements. Which question should the nurse ask the client in response?

"Would you please tell your doctor about the herbs during the next visit?"

"Would you please ask your partner to discuss this with me during the next visit?"

"Would you please have your partner bring the bottles to the hospital?"

"Would you please ask your partner to call the hospital pharmacist with the names?"

Answer: 3

Explanation:

It is preferable for the nurse to do the assessment rather than to refer to the healthcare provider. Discussing the herbs with the nurse is the second-best answer, but having objective data, the bottles, will provide the best information.

The best way for the nurse to assess the kinds of herbal preparations the client is taking is to actually look at the bottles.

It is preferable for the nurse to do the assessment rather than to refer to the pharmacist.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 10-6 Identify common specialty supplements taken by patients.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is teaching a community class on dietary supplements. Which statement by a participant indicates to the nurse that teaching was effective?

"Products can make claims based on body structure and function like 'promotes healthy urinary tract.'"

"Dietary supplements must go through rigorous testing prior to being marketed by the manufacturer."

"The Food and Drug Administration is not involved with the approval of the dietary supplement and cannot remove it from the market."

"The manufacturer of the dietary supplement has the burden of proof for the safety of the supplement."

Answer: 1

Explanation:

The Dietary Supplement Health and Education Act (DSHEA) of 1994 states that the supplement label may make claims about the product's effect on body structure and function, such as "promotes healthy urinary tract."

The DSHEA states that dietary supplements do not have to be tested prior to marketing.

The DSHEA states that the Food and Drug Administration has the power to remove from the market any product that poses a "significant or unreasonable" risk to the public.

The DSHEA states that the government has the responsibility to prove that the dietary supplement is unsafe.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.7 Discuss potential and actual impact of national patient safety resources, initiatives, and regulations. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Context and Environment: Code of ethics; regulatory and professional standards. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 10-4 Analyze the strengths and weaknesses of legislation regulating herbal and dietary supplements.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client uses Ginkgo biloba but has not reported it to the nurse. Which assessment finding should indicate to the nurse that the client is experiencing adverse effects of this supplement when it is taken with warfarin?

Headache, dizziness, sweating, and agitation

A blood glucose of 56

An international normalized ratio (INR) of 3.0

Petechiae and bleeding from the gums

Answer: 4

Explanation:

Headache, dizziness, sweating, and agitation, which are signs of serotonin syndrome, are not the result of an interaction between Ginkgo biloba and warfarin.

Hypoglycemia (blood glucose of 56) is not the result of an interaction between Ginkgo biloba and warfarin.

An INR of 3.0 is within a normal range.

Ginkgo biloba will interact with warfarin to increase the potential for bleeding that may lead to petechiae and bleeding from the gums.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is reviewing data collected during client assessments. For which reasons would clients decide to use complementary and alternative therapies as a treatment modality?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Preventing hair loss

Experiencing menopause

Boosting immune system

Increasing athletic ability

Treating prostate dysfunction

Answer: 2, 3, 4, 5

Explanation:

Complementary and alternative therapies are not identified as available to treat hair loss.

Complementary and alternative therapies have been used by clients experiencing menopause.

Complementary and alternative therapies have been used by clients to boost the immune system.

Complementary and alternative therapies have been used by clients to increase athletic ability.

Complementary and alternative therapies have been used by clients to treat prostate dysfunction.

Page Ref: 107

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 10-1 Identify the four primary complementary health approaches and give examples of each.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

An older client asks for information on herbal preparations. Which response should the nurse make?

"Herbal preparations are safe as long as you carefully read the label."

"As long as the herbal preparation has been tested in the clinical setting, it is safe."

"Herbal preparations actually are drugs; you must be careful with them."

"Herbal preparations can be dangerous if you are allergic to them."

Answer: 3

Explanation:

Reading the label does not mean the herbal preparation is safe; clients do not commonly recognize the interactions between herbal preparations and prescription medicines.

There is no clinical evidence to support that herbal preparations have been tested in the clinical setting or that they are safe.

Herbal preparations are nonprescription drugs that have side effects and can interact with many other drugs.

Herbal preparations can be dangerous for reasons other than an allergy to them.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-4 Analyze the strengths and weaknesses of legislation regulating herbal and dietary supplements.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

An older adult asks how dietary supplements will help support health. Which response should the nurse make?

"Fish oil will help to reduce heart disease in some people."

"Chromium will help you achieve and maintain optimum weight."

"Dietary supplements will help support and maintain hydration."

"Soy will help prevent Alzheimer disease."

Answer: 1

Explanation:

Omega-3 fatty acids have been shown to reduce the risk of heart disease in certain people.

There is no evidence to support that chromium helps with weight maintenance.

Dietary supplements do not support and maintain hydration.

Soy is not identified as being a supplement to prevent any specific disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-6 Identify common specialty supplements taken by patients.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client takes St. John's wort for depression but does not tell the healthcare provider. For which effect should the nurse monitor when the client is taking a selective serotonin reuptake inhibitor (SSRI)?

Dizziness

Serum glucose level of 340

Sedation

Serum potassium of 6.0

Answer: 1

Explanation:

Dizziness is associated with serotonin syndrome, which may occur when St. John's wort and SSRIs are given concurrently.

Combining St. John's wort and an SSRI does not result in hyperglycemia.

It is more likely that concurrent administration of St. John's wort and an SSRI will result in agitation.

Combining St. John's wort and an SSRI will not result in hyperkalemia.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client is prescribed digoxin. Which information should the nurse emphasize with the client?

Use few herbal supplements with this medication.

This medication can be taken with herbal supplements.

Stop any herbal supplement if an allergic reaction occurs.

Talk with your healthcare provider before taking any herbal supplements.

Answer: 4

Explanation:

Herbal supplements should be avoided when taking digoxin.

Digoxin cannot be taken with herbal supplements.

Most herbal products contain a mixture of ingredients that could cause an allergic reaction; however, no herbal supplements should be taken with digoxin.

The safest action would be for the client to talk with the healthcare provider before taking any herbal supplement.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Diagnosis

Learning Outcome: 10-7 Discuss the role of the nurse in teaching patients about complementary and alternative therapies.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse instructs a client about herbal preparations. Which statement indicates to the nurse that the client requires additional teaching?

"I should check with my doctor before using an herbal product."

"Herbal products usually contain only one active ingredient."

"I need to be careful about where I store my herbal product."

"Herbal preparations are available in solid and liquid forms."

Answer: 2

Explanation:

Clients should check with the healthcare provider before using an herbal product.

Herbal products contain multiple active ingredients as opposed to prescription drugs, which contain only one active ingredient.

Where and how an herbal product is stored can affect its potency.

Herbal preparations are available in solid and liquid forms.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.5 Describe factors that create a culture of safety (such as, open communication strategies and organizational error reporting systems). | AACN Domains and

Competencies: IX.17 Develop a beginning understanding of complementary and alternative modalities and their role in healthcare. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 10-7 Discuss the role of the nurse in teaching patients about complementary and alternative therapies.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse prepares to teach clients about the safety and efficacy of herbal preparations. Which statement should the nurse include in this teaching?

"Herbal preparations must be tested for safety and efficacy prior to marketing."

"The label on the herbal preparation is required by the Dietary Supplement Health and Education Act to be accurate."

"Herbal preparations have to meet the same safety and efficacy standards as prescription and over-the-counter drugs."

"The manufacturer does not have to prove the safety or efficacy of the herbal preparation."

Answer: 4

Explanation:

The federal government does not require herbal preparations to be tested for safety and efficacy prior to marketing.

The Dietary Supplement Health and Education Act (DSHEA) does not regulate the accuracy of the label; the product may or may not contain the product listed in the amounts claimed.

Herbal preparations do not have to meet the same safety standards as prescription and over-the-counter drugs.

Herbal products are not regulated by the Food and Drug Administration for safety standards.

They are regulated by a far less rigorous law, the DSHEA, which does not require the manufacturer to demonstrate efficacy or safety of the herbal product.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.7 Discuss potential and actual impact of national patient safety resources, initiatives, and regulations. | AACN Domains and Competencies: 2.6

Demonstrate accountability for care delivery. | NLN Competencies: Context and Environment:

Code of ethics; regulatory and professional standards. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 10-4 Analyze the strengths and weaknesses of legislation regulating herbal and dietary supplements.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client taking several prescription medications asks about using complementary and alternative medicine (CAM). Which response should the nurse make?

"CAM is a good idea that you should discuss with your healthcare provider."

"CAM is an approach that might reduce your need for medications."

"CAM might help, but you will still need your medications."

"CAM has not been demonstrated to help with your symptoms."

Answer: 2

Explanation:

The nurse can answer the client's questions; they do not need to be referred to the healthcare provider.

From a pharmacology perspective, much of the value of CAM therapies lies in their ability to reduce the need for medications.

CAM often reduces the need for prescription medications.

CAM has been demonstrated to alleviate many client symptoms.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-1 Identify the four primary complementary health approaches and give examples of each.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A pregnant client taking prescription antidepressant medication wants to switch to St. John's wort because it is natural. Which response should the nurse make?

"It should be okay because your baby has been exposed to an antidepressant."

"St. John's wort is a drug, and this should be discussed with your healthcare provider."

"No, herbal preparations are just not safe to take during pregnancy."

"Yes, you can change, but let your healthcare provider know at your next appointment."

Answer: 2

Explanation:

St. John's wort is not okay because the baby has not been exposed to it specifically.

All herbal preparations are drugs, and their use should be discussed with the healthcare provider when a client is pregnant.

Some herbal preparations may be safe during pregnancy.

It is not safe to tell a pregnant woman she can change antidepressants.

Page Ref: 112

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 10-7 Discuss the role of the nurse in teaching patients about complementary and alternative therapies.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is planning to teach a client about the relationship of complementary and alternative (CAM) therapies to pharmacology. Which information should the nurse include?

They are more effective than medication use.

They can reduce client medication needs.

They serve as competitors and should not be promoted.

They have little to no value in disease prevention and treatment.

Answer: 2

Explanation:

CAM therapies are not generally more effective than medications but do have value in disease prevention and treatment.

CAM therapies can reduce client medication needs and therefore lower the risk of adverse effects.

Both CAM therapies and pharmacology should be used together to provide holistic client care.

They are not generally more effective than medications but do have value in disease prevention and treatment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 10-1 Identify the four primary complementary health approaches and give examples of each.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client asks why herbal remedies are popular now. Which response should the nurse make?

They are being marketed very aggressively.

Most insurance policies cover them.

They are more effective for treating bacterial infections.

Their popularity is decreasing, not increasing.

Answer: 1

Explanation:

The popularity of herbs and alternative therapies has increased since the 1970s due to several factors, including aggressive marketing.

They are generally not covered under insurance policies.

They are not more effective than antibiotics for treating bacterial infections.

The popularity of herbs and alternative therapies has increased since the 1970s.

Page Ref: 107

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Content and Environment: Show respect for other's values; appreciate diversity. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 10-2 Identify popular herbal products and their primary use.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is teaching a student nurse about the active ingredients of herbal medicines. Which statement indicates that teaching provided to the student was effective?

Can be found in all parts of the herb

Are found only in the root system

Are found only in the rhizome

Are found only in the stems and leaves

Answer: 1

Explanation:

The active ingredients of herbs can be found in all of their parts.

The active ingredients of herbs are not limited to the root system.

The active ingredients of herbs are not limited to the rhizome.

The active ingredients of herbs are not found only in the stems and leaves.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.5 Describe factors that create a culture of safety (such as, open communication strategies and organizational error reporting systems). | AACN Domains and

Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated

Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 10-3 Describe how the strength and dosage of herbal products are measured.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nursing instructor is planning to discuss the Dietary Supplement Health and Education Act (DSHEA) of 1994 with a group of nursing students. Which information should the instructor include?

It ensures that herbal products provide proof of their intended effects.

It mandates that herbal product labels state that the products are not intended to diagnose, treat, cure, or prevent disease.

It mandates that herbal product labels contain accurate information.

It requires that herbal products undergo the same rigorous testing as drugs do under the Food and Drug Administration (FDA).

Answer: 2

Explanation:

The DSHEA does not require herbal products to offer proof of their intended effects. It does require that herbal product labels state that they are not intended to diagnose, treat, cure, or prevent disease.

It does require that herbal product labels state that they are not intended to diagnose, treat, cure, or prevent disease.

The DSHEA does not require herbal products to conform to the same standards the FDA requires of drugs. It does require that herbal product labels state that they are not intended to diagnose, treat, cure, or prevent disease. It does not mandate labeling accuracy.

The DSHEA does not require herbal products to conform to the same standards the FDA requires of drugs.

Page Ref: 109

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.7 Discuss potential and actual impact of national patient safety resources, initiatives, and regulations. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Context and Environment: Code of ethics; regulatory and professional standards. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 10-4 Analyze the strengths and weaknesses of legislation regulating herbal and dietary supplements.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is caring for a client with seizures. Which herbal preparation should the nurse counsel the client to avoid?

Feverfew

Evening primrose

Ginger

Ginkgo

Answer: 4

Explanation:

Feverfew does not have potential for decreasing the effects of anticonvulsants.

Evening primrose does not have potential for decreasing the effects of anticonvulsants.

Ginger does not have potential for decreasing the effects of anticonvulsants.

Ginkgo has the greatest potential for decreasing the effects of anticonvulsants.

Page Ref: 111

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client asks what the common complications are due to drug—herbal interactions. Which complication should the nurse state to the client?

Hair growth

Urine output

Vision loss

Bleeding

Answer: 4

Explanation:

Hair growth might be seen but is not as common as a different interaction.

Changes in urine output might be seen but are not as common as a different interaction.

Hair growth might be seen but is not as common as a different interaction.

Many herbal products increase bleeding potential and reduce the effects of anticoagulant drugs.

Page Ref: 111

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A student nurse asks how specialty supplements differ from herbal products. What is the nurse's best response?

Specialty supplements must be prescribed.

Herbal products are more specific in their actions.

Specialty supplements are generally targeted for more general conditions.

Specialty supplements can come from animal sources.

Answer: 4

Explanation:

Prescriptions are not required.

They are generally more specific than herbs.

They are generally more specific than herbs and targeted for a smaller number of conditions.

Specialty supplements can come from animal and plant sources.

Page Ref: 111

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-6 Identify common specialty supplements taken by patients.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client experiencing occasional minor digestive problems asks about herbal therapy. Which herbal supplement should the nurse state may be helpful?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Wheat grass

Green tea

Ginger

Grape seed

Stevia

Answer: 1, 2, 3

Explanation:

Wheat grass is used to improve digestion.

Green tea relieves stomach problems.

Ginger is used to decrease nausea.

Grape seed is an antioxidant.

Stevia is a natural sweetener.

Page Ref: 107

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and

Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Content and

Environment: Show respect for other's values; appreciate diversity. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 10-2 Identify popular herbal products and their primary use.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client experiencing menopause is advised to avoid hormone supplements because of the risk for thromboembolic events. Which herb should the nurse recommend when the client asks about nonpharmacologic supplements for the symptoms?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Cranberry  
Black cohosh  
Evening primrose  
Saw palmetto  
Acai

Answer: 2, 3

Explanation:

Cranberry is used to help prevent urinary tract infections.

Black cohosh is used to alleviate postmenopausal symptoms.

Evening primrose is used to alleviate postmenopausal symptoms.

Saw palmetto is used to decrease prostate hyperplasia.

Acai is used as an antioxidant and for weight loss.

Page Ref: 107

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Content and Environment: Show respect for other's values; appreciate diversity. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-2 Identify popular herbal products and their primary use.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client with a family history of heart disease asks which herbs can decrease its risk. Which herb should the nurse suggest the client discuss with the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Flaxseed

Green tea

Beta-sitosterol

Milk thistle

Acai

Answer: 1, 2, 3

Explanation:

Flaxseed is believed to reduce the risk of heart disease.

Green tea is believed to decrease cholesterol, which may reduce the risk for heart disease.

Beta-sitosterol is identified to reduce blood cholesterol.

Milk thistle is believed to be an antitoxin.

Acai is an antioxidant.

Page Ref: 110

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and

Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Content and

Environment: Show respect for other's values; appreciate diversity. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client with inflammatory arthritis asks about adding an anti-inflammatory herb to the medication regimen to decrease the use of prescription drugs. Which herb should the nurse suggest the client discuss with the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Evening primrose

St. John's wort

Ginger

Ginseng

Echinacea

Answer: 1, 2, 3

Explanation:

Evening primrose may be helpful in the relief of rheumatoid arthritis and other inflammatory symptoms.

St. John's wort is believed to reduce inflammation.

Ginger is thought to reduce inflammation.

Ginseng is used to enhance the immune system.

Echinacea enhances the immune system.

Page Ref: 107

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.2 Describe how diverse cultural, ethnic, and social backgrounds function as sources of patient, family, and community values. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Content and Environment: Show respect for other's values; appreciate diversity. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 10-2 Identify popular herbal products and their primary use.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is reviewing the Dietary Supplement and Nonprescription Drug Consumer Protection Act of 2007. Which information should the nurse use when discussing herbal and dietary supplements with clients?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Include their contact information on the label so consumers can report adverse effects.

Notify the Food and Drug Administration (FDA) within 15 days of receiving a report of an adverse effect.

Keep records of adverse effects for at least 6 years and make these records available for inspection by the FDA.

Demonstrate product effectiveness prior to release of the product to the public.

State which conditions the product is intended to cure or prevent.

Answer: 1, 2, 3

Explanation:

This legislation requires that the marketing company's contact information be listed on the label.

The marketing company must notify the FDA of any reported adverse effects within 15 days.

The marketing company must keep records of reported adverse effects for at least 6 years and make those records available to the FDA for inspection.

The marketing company is not required to demonstrate the effectiveness of a product prior to release to the public.

The marketing company cannot make the claim that a product can cure or prevent any conditions.

Page Ref: 110

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.7 Discuss potential and actual impact of national patient safety resources, initiatives, and regulations. | AACN Domains and Competencies: 2.2

Communicate effectively with individuals. | NLN Competencies: Context and Environment: Code of ethics; regulatory and professional standards. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-4 Analyze the strengths and weaknesses of legislation regulating herbal and dietary supplements.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

The nurse is teaching clients in a senior center about complementary and alternative therapies. Which statement by a client indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I see now that 'natural' doesn't really mean 'safe,' and I should ask my healthcare provider about any supplements I want to take."

"I didn't realize some herbal supplements may be just as strong as a prescription drug. I will need to discuss any supplements I want to try with my healthcare provider."

"I understand now that when I choose to use a natural product over a prescription medication, I could be delaying my recovery."

"It's good to know that herbs contain ingredients that are as powerful as a prescribed medication and are an option for safe and effective therapy."

"I'm allergic to many foods. It's good to know that because herbal products are natural, I don't have to worry about an allergic reaction."

Answer: 1, 2, 3

Explanation:

Many herbal products are not standardized and may contain dozens of active chemicals, many of which have not been identified and studied, making these products potentially unsafe.

Some herbs contain active chemicals that are just as powerful as approved prescription medications.

Any time a client chooses to use an unproven alternative therapy instead of an established, effective medical treatment, healing may be delayed.

Herbs may or may not be a safe option. The active ingredients can cause interactions with other prescribed drugs.

It is not unusual for an herbal supplement to contain dozens of chemicals from the flowers, leaves, or roots of the plant. Clients who have food allergies should consult with their healthcare provider before using any herbal product.

Page Ref: 110-111

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 10-5 Identify examples of herbal therapies that may have therapeutic value.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client reports using psychological and physical complementary health approaches to help with a health problem. About which therapy should the nurse assess the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Yoga

Massage

Pilates

Herbal therapies

Biofeedback

Answer: 1, 2, 3, 5

Explanation:

Yoga is a physical and psychological complementary health approach.

Massage is a complementary physical health approach.

Pilates is a combination of physical and psychological health approaches.

Herbal therapies are a nutritional health approach.

Biofeedback is a psychological health approach.

Page Ref: 106

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and

Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 10-1 Identify the four primary complementary health approaches and give examples of each.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

A client asks if there are any supplements that would help improve or preserve memory. Which supplement should the nurse discuss with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Carnitine  
Coenzyme Q10  
Glucosamine  
DHEA  
Vitamin C

Answer: 1, 4

Explanation:

Carnitine is used to improve memory.

Coenzyme Q10 is used to prevent heart disease and to provide antioxidant therapy.

Glucosamine is used to reduce symptoms of arthritis and other joint problems.

DHEA is used to improve memory.

Vitamin C is used to prevent colds.

Page Ref: 111

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient-centered care: patient/family/community preferences, values; coordination and integration of care; information, communication, and education; physical comfort and emotional support; involvement of family and friends; and transition and continuity. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 10-6 Identify common specialty supplements taken by patients.

MNL Learning Outcome: Examine the role of complementary and alternative therapies pharmacology.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 11 Emergency Preparedness and Poisonings**

The nurse is teaching the importance of drugs for emergency preparedness to local firemen. Which statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The vendor-managed inventory package can reach any community within 24 to 36 hours."

"Our local hospital is supposed to be stockpiling antibiotics."

"The push package can reach any community within 12 hours of an attack."

"The Strategic National Stockpile is located at the Centers for Disease Control and Prevention in Atlanta."

"Our country's drug stockpile is managed by the Centers for Disease Control and Prevention."

Answer: 1, 3, 5

Explanation:

The vendor-managed inventory package can reach any community within 24 to 36 hours.

Local hospitals are discouraged from stockpiling antibiotics due to finite expiration dates on the antibiotics.

The push package can reach any community within 12 hours of an attack.

The Strategic National Stockpile is located at various sites throughout the country.

The Strategic National Stockpile is managed by the Centers for Disease Control and Prevention.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 11-3 Identify the purpose and components of the Strategic National Stockpile.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse works for the Centers for Disease Control and Prevention (CDC). When planning for a bioterrorist attack, which action should the nurse take?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Learn the signs and symptoms of chemical and biological agents.

Obtain a listing of health and law enforcement contacts.

Assist in the stockpiling of medications.

Obtain current knowledge of emergency management.

Assist in triage at local hospitals.

Answer: 1, 2, 4

Explanation:

The key roles of nurses in meeting the challenge of a potential bioterrorist event include diagnosis and treatment (signs and symptoms of chemical and biological agents).

The key roles of nurses in meeting the challenge of a potential bioterrorist event include resources (health and law enforcement contacts).

Stockpiling of medications is discouraged.

The key roles of nurses in meeting the challenge of a potential bioterrorist event include education (knowledge).

In a bioterrorist attack, a nurse from the CDC would have a broader role than assisting local hospitals with triage.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client experiencing an anxiety attack is concerned about a potential lack of medication to treat an anthrax attack. Which response should the nurse make?

"You don't need to worry about another attack at all; I think our government can take care of us."

"Your health is in danger due to the anxiety; we really need to focus on reducing your anxiety now."

"The Centers for Disease Control and Prevention maintains a large stockpile of medications for us in case that occurs."

"I'm sure the Centers for Disease Control and Prevention has contingency plans in the event of an anthrax attack."

Answer: 3

Explanation:

Telling the client not to worry is a nonspecific and patronizing response.

Reducing anxiety is important, but this response does not answer the client's concern.

The Centers for Disease Control and Prevention (CDC) maintains a stockpile of antibiotics, vaccines, medical/surgical supplies, and other client-support supplies in the event of a bioterrorist attack.

Telling the client that the CDC has contingency plans is too vague and nonspecific.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 11-3 Identify the purpose and components of the Strategic National Stockpile.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is teaching a class on anthrax to a group of emergency response workers. Which information should the nurse include?

Anthrax is a deadly bacterium; the most common and deadly form is gastrointestinal anthrax. Cutaneous anthrax is the most common form, but inhaled anthrax is the most lethal form. Anthrax most commonly affects wild rodents such as mice, rats, squirrels, and chipmunks. Cutaneous anthrax is serious because it quickly spreads by person-to-person contact.

Answer: 2

Explanation:

Gastrointestinal anthrax is a rare form of anthrax.

Cutaneous anthrax is the most common, but inhalation anthrax is the most dangerous form of anthrax.

Anthrax most commonly affects hooved animals such as cattle, sheep, and horses.

Cutaneous anthrax cannot be spread by person-to-person contact.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Planning; Teaching/Learning

Learning Outcome: 11-4 Explain the symptoms and treatment of anthrax exposure.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client is being evaluated and treated for inhalation anthrax. Which medication should the nurse expect to be prescribed?

Penicillin (Bicillin LA) and vancomycin (Vancocin)

Tetracycline (Sumycin) and erythromycin (Erythrocin)

Ampicillin (Principen) and cefepime (Maxipime)

Ciprofloxacin (Cipro) and doxycycline (Vibramycin)

Answer: 4

Explanation:

Penicillin and vancomycin are considered "other drugs" to treat anthrax but are not specific for inhaled anthrax.

Tetracycline and erythromycin (Erythrocin) are considered "other drugs" to treat anthrax but are not specific for inhaled anthrax.

Ampicillin is considered an "other drug" to treat anthrax but is not specific for inhaled anthrax.

Cefepime is not identified as treatment for the treatment of anthrax.

The Food and Drug Administration has approved the use of ciprofloxacin (Cipro) and doxycycline in combination for treatment of inhaled anthrax.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 11-4 Explain the symptoms and treatment of anthrax exposure.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client was exposed to cutaneous anthrax 2 weeks ago. Which findings should the nurse expect to assess in this client?

Large pustules and, later, reddish scabs

Small, fluid-filled vesicles and, later, small skin erosions

Ulcerated areas and, later, keloids

Small skin lesions and, later, black scabs

Answer: 4

Explanation:

Large pustules and, later, reddish scabs are not seen with cutaneous anthrax.

Small, fluid-filled vesicles and, later, small skin erosions are not seen with cutaneous anthrax.

Ulcerated areas and, later, keloids are not seen with cutaneous anthrax.

Cutaneous anthrax manifests as small skin lesions that develop and turn into black scabs.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 11-4 Explain the symptoms and treatment of anthrax exposure.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nursing instructor is teaching about the use of hemorrhagic viruses in a bioterrorism attack. Which student statement indicates that teaching was effective?

"The Centers for Disease Control and Prevention has a plan to vaccinate Americans against most viruses."

"Actually, a bigger concern is a nuclear weapon exploding in a city."

"Most Americans have already been vaccinated against the lethal viruses."

"This virus can cause severe physical damage affecting multiple organ systems."

Answer: 4

Explanation:

The Centers for Disease Control and Prevention does not have a plan to vaccinate Americans against most viruses.

At this time, a nuclear weapon does not pose a bigger threat to American citizens than does a bioterrorism attack.

Most Americans have not been vaccinated against viruses.

Viral hemorrhagic fevers are caused by a number of virus families and can cause severe physical damage affecting multiple organ systems.

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Cognitive Level: Analyzing

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 11-5 Explain the symptoms and treatment of exposure to Ebola.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client is concerned about terrorist activity and questions if everyone should be immunized against smallpox. Which response should the nurse make?

"The vaccine has side effects that are serious and could kill many people."

"I really do not think our country has enough vaccines to do this."

"Don't be so concerned; if an attack comes, we will immunize people then."

"The vaccine has some serious side effects, but this is probably a good idea."

Answer: 1

Explanation:

If the smallpox vaccine were given to every person in the United States (approximately 300 million), 600 possible deaths could result.

There are enough vaccines for all Americans to be vaccinated against smallpox.

Telling a client not to be concerned is a condescending and nontherapeutic response.

Mass immunization is not warranted at this time, so it is not a good idea to vaccinate everyone against smallpox.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 11-5 Explain the symptoms and treatment of exposure to Ebola.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

During a community education program, the nurse says that drugs are among our most powerful weapons for emergency preparedness. Which additional information should the nurse share?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Drugs help us treat the diseases that could be caused by bioterrorism."

"We can use drugs to neutralize our enemies."

"If we control the manufacture and distribution of drugs, we will control global politics."

"Without drugs, we might be quickly overwhelmed by a bioterrorist attack."

"Drugs can be used in chemical or nuclear attacks."

Answer: 1, 4, 5

Explanation:

Drugs are a major treatment option for the types of diseases used in bioterrorism.

The nurse would not have knowledge of this level of emergency planning.

The nurse has no part in the manufacture and distribution of drugs.

If there were no drugs to treat a bioterrorist-released organism, the medical systems would soon become overwhelmed.

Drugs can be used to treat the results of chemical or nuclear warfare as well as bioterrorism.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client has been exposed to a nerve agent. Which symptoms should the nurse expect to assess?

Salivation and involuntary urination

Dilated pupils and increased heart rate

Pinpoint pupils and decreased blood pressure

Rapid tachypnea and cold, clammy skin

Answer: 1

Explanation:

Symptoms of nerve gas exposure are related to overstimulation of acetylcholine and can result in salivation, involuntary urination, and convulsions. The nerve agent blocks acetylcholinesterase.

Dilated pupils and increased blood pressure and heart rate are symptoms of sympathetic nervous system stimulation.

Pinpoint pupils, decreased blood pressure, and increased heart rate are not symptoms of overstimulation of acetylcholine.

Rapid breathing and cold, clammy skin are not symptoms of overstimulation of acetylcholine.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Apply evidence to support decision

making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Assessment

Nursing Process: Assessment

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client has been exposed to a nerve agent. Which antidote will the nurse plan to administer?

Apomorphine

Atropine

Acetate of ammonia

Hydroxyzine (Vistaril)

Answer: 2

Explanation:

Apomorphine will not reverse the symptoms of acetylcholine overstimulation.

Atropine is an anticholinergic drug that will reverse the symptoms of acetylcholine overstimulation.

Acetate of ammonia will not reverse the symptoms of acetylcholine overstimulation.

Hydroxyzine will not reverse the symptoms of acetylcholine overstimulation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A small nuclear weapon has been detonated in a nearby city. Which immediate symptoms of radiation sickness should the nurse assess in clients who have been exposed?

Dilated pupils and aggression

Nausea, vomiting, and diarrhea

Weight loss and fatigue

Anorexia and fatigue

Answer: 2

Explanation:

Dilated pupils and aggression are not signs of radiation sickness.

The immediate symptoms of radiation sickness include nausea, vomiting, and diarrhea.

Weight loss and fatigue are late symptoms of radiation sickness.

Anorexia and fatigue are late symptoms of radiation sickness.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 11-7 Describe the symptoms of acute radiation exposure and the role of potassium iodide in preventing thyroid cancer.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client has been exposed to radiation from a nuclear weapon. For which reason should the nurse anticipate giving potassium iodide (KI) to this client?

Prevent thyroid cancer

Prevent brain cancer

Prevent liver cancer

Prevent renal cancer

Answer: 1

Explanation:

Potassium iodide can prevent up to 100% of the radioactive iodine from entering the thyroid gland.

KI will not protect the brain from the effects of radioactive iodine.

Potassium iodide will not protect the liver from the effects of radioactive iodine.

KI will not protect the kidneys from the effects of radioactive iodine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse conducts a community seminar about self-protection from radiation during a nuclear attack. Which participant statement indicates that teaching was effective?

"I can protect myself from cancers by taking potassium iodide."

"I need to stay inside my house for at least 2 days after the attack to be safe."

"I need to take at least four showers every day or I will develop skin ulcers."

"I am at risk to develop leukemia as a result of radiation exposure."

Answer: 4

Explanation:

Potassium iodide will only protect against thyroid cancer.

Radiation will not dissipate in 2 days.

Showers will not always protect the skin.

Leukemia is one of the long-term effects of radiation.

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Cognitive Level: Analyzing

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 11-7 Describe the symptoms of acute radiation exposure and the role of potassium iodide in preventing thyroid cancer.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse prepares an educational plan for parents to protect children during a bioterrorist attack. Which information should the nurse include?

"Don't worry, the Centers for Disease Control and Prevention has everything under control."

"Plan to call the Centers for Disease Control and Prevention if an attack occurs."

"Follow the Centers for Disease Control and Prevention guidelines for immunizations."

"Realistically, there is nothing that can be done."

Answer: 3

Explanation:

Telling parents not to worry and that the Centers for Disease Control and Prevention (CDC) has everything under control is nontherapeutic and condescending information.

Phone lines to the CDC would be overwhelmed during an attack, so calling them would elicit no information.

One of the roles of the CDC is to publicize recommendations for immunizations.

Telling parents that nothing can be done is not true and would leave them feeling very powerless.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is asked what items are found within the Strategic National Stockpile (SNS). Which response should the nurse make?

Two-way radios

Prepared meals

Drinking water

Antibiotics

Answer: 4

Explanation:

Two-way radios are not included in the SNS.

Prepared meals are not included in the SNS.

Drinking water is not included in the SNS.

The SNS consists of antibiotics, vaccines, chemical antidotes, and medical, surgical, and patient support supplies such as bandages, airway supplies, and IV equipment.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 11-3 Identify the purpose and components of the Strategic National Stockpile.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is planning a presentation about anthrax. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Anthrax can spread easily.

There are three basic types of anthrax.

Anthrax is killed by heat.

The main area affected by inhalation anthrax is the lung periphery.

Anthrax causes the release of multiple toxins, each affecting a different part of the body.

Answer: 1, 2

Explanation:

Anthrax spreads easily.

The types of anthrax are cutaneous, gastrointestinal, and inhalation.

Anthrax is spore forming and is not killed by drying, heat, or many harsh chemicals. It can live in soil for hundreds or thousands of years.

The main area affected by inhalation anthrax is the mediastinum.

There are two toxins emitted by the bacterium.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 11-4 Explain the symptoms and treatment of anthrax exposure.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

Following a bioterrorism attack, the nurse finds that the victims are suffering from small black lesions on their forearms. For which condition should the nurse anticipate treating the victims?

Cutaneous anthrax

Phosgene gas

Gastrointestinal anthrax

Hydrogen cyanide

Answer: 1

Explanation:

Cutaneous anthrax produces small black lesions on the skin.

Phosgene gas causes frostbite-type lesions.

Gastrointestinal anthrax causes sore throat, difficulty swallowing, cramping, diarrhea, and abdominal swelling.

Hydrogen cyanide causes flushing of the skin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 11-4 Explain the symptoms and treatment of anthrax exposure.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is planning a discussion of emergency preparedness with newly hired nurses. Which event should the nurse use as an historical example of terrorism?

The death of a client in a Texas hospital was confirmed to be due to the Ebola virus.

Many people died as a result of sarin gas exposure in a Tokyo subway.

Deaths have been attributed to anthrax exposure.

More people are contracting H1N1 avian influenza.

Answer: 3

Explanation:

The client had been exposed to Ebola while traveling overseas. No bioterrorism was suspected.

There is no evidence that the release of sarin gas was intentional.

Exposure to anthrax can cause disease by emitting toxins that can be transmitted to humans through direct contact, contaminated food, or inhalation.

As far as is known, H1N1 avian influenza's crossover to humans is related to natural mutations.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning; Teaching/Learning

Learning Outcome: 11-6 Identify the types of chemical agents that have the potential to cause mass casualty events.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client is admitted to the emergency department with suspected inhalation anthrax. Which medication should the nurse expect to be prescribed to neutralize the bacteria toxins?

Anthrax vaccination

Atropine

Obiltoxaximab

Antiviral agents

Answer: 3

Explanation:

Anthrax vaccines are available to a limited population but would not be used for treatment after exposure.

Atropine is not indicated for bacterial infections.

Obiltoxaximab is a monoclonal antibody for treating inhalation anthrax that neutralizes toxins secreted by the bacteria.

Antiviral agents are not indicated for bacterial infections.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is asked about common treatments for victims of bioterrorism. For which exposure should the nurse explain atropine is used?

Ionizing radiation

Nerve gas

Bacterial agents

Viral agents

Answer: 2

Explanation:

Atropine is not useful as treatment for exposure to ionizing radiation.

Chemicals in nerve gas cause overstimulation by the neurotransmitter acetylcholine. Atropine blocks the attachment of this neurotransmitter to receptor sites.

Atropine is not useful as treatment for exposure to bacterial agents.

Atropine is not useful as treatment for exposure to viral agents.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client recovering from a bioterrorism attack experienced initial nausea and vomiting followed by weight loss and eventual thyroid cancer. To which agent should the nurse suspect the client was exposed?

Chemical agent

Viral agent

Bacterial agent

Ionizing radiation

Answer: 4

Explanation:

Exposure to chemical agents is likely to cause convulsions and loss of consciousness.

Exposure to viral agents may cause nausea, vomiting, and weight loss, but cancer development is not expected.

Exposure to bacterial agents may cause nausea, vomiting, and weight loss, but cancer development is not expected.

Exposure to radiation causes weight loss and eventual thyroid cancer.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 11-7 Describe the symptoms of acute radiation exposure and the role of potassium iodide in preventing thyroid cancer.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client was exposed to ionizing radiation. Which medication should the nurse anticipate providing?

Potassium-iodine tablets

Calcium tablets

Antibiotics

Salt tablets

Answer: 1

Explanation:

Potassium-iodine tablets are the only recognized therapy for radiation exposure.

Calcium tablets are not recognized therapy for radiation exposure.

Antibiotics are not recognized therapy for radiation exposure.

Salt tablets are not recognized therapy for radiation exposure.

Page Ref: 121

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 11-7 Describe the symptoms of acute radiation exposure and the role of potassium iodide in preventing thyroid cancer.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is caring for a client who overdosed on benzodiazepines. Which antidote should the nurse anticipate being prescribed for this client?

Acetylcysteine (Acetadote)

Digibind

Flumazenil

Acetaminophen

Answer: 3

Explanation:

Acetylcysteine is the antidote for acetaminophen overdose.

Digibind is the antidote for digoxin overdose.

Flumazenil is the antidote for benzodiazepine overdose.

Acetaminophen is not an antidote for poisoning.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-8 List top substances that represent human poison exposures and give examples of specific antidotes.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse cares for a client who was exposed to the smallpox virus, which was aerosolized during a community parade. The nurse anticipates giving the client the anthrax vaccine within \_\_\_\_\_ days of exposure.

Answer: 3

Explanation: The variola vaccine provides a high level of protection if given prior to exposure or up to 3 days after exposure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is asked about the contents of the Strategic National Stockpile (SNS). Which item should the nurse respond is included in this stockpile?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Intravenous administration equipment

Antibiotics

Life-support medications

Chemical antidotes

Hospital beds

Answer: 1, 2, 3, 4

Explanation:

The SNS, a national repository of medical equipment, includes intravenous administration equipment.

The SNS has antibiotics.

The SNS has life-support medications.

The SNS has chemical antidotes.

The SNS does not have hospital beds.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 11-3 Identify the purpose and components of the Strategic National Stockpile.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client exposed to radiation asks what factors increase the amount of radiation that a person is exposed to. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Amount of exposure

Long-lasting effects

Amount of cellular death

Gender of the exposed client

Amount of naloxone (Narcan) ingested after exposure

Answer: 1, 2, 3

Explanation:

Radiation exposure can cause mass casualties at the point of impact and create residual ionizing radiation for miles around the site. Some radioisotopes emit radiation for decades and even centuries.

Death may not be immediate but may result from long-lasting effects.

When exposed to large amounts of radiation, or to small amounts over many decades, clients tend to develop certain malignancies (cellular death) such as leukemia or thyroid cancer.

Gender is not a determinant of radiation exposure danger.

Naloxone is not used to treat radiation exposure.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 11-7 Describe the symptoms of acute radiation exposure and the role of potassium iodide in preventing thyroid cancer.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client is brought to the emergency department after ingesting a poisonous substance. Which information should the nurse assess before providing the client with activated charcoal?

Age of the client

Last food ingested

History of smoking

Time of taking the substance

Answer: 4

Explanation:

The age of the client is not necessary to assess before giving activated charcoal.

The type of food ingested is not necessary to assess before giving activated charcoal.

Smoking history is not necessary to assess before giving activated charcoal.

The effectiveness of activated charcoal as the greatest benefit is within 60 minutes of ingestion.

The time the client ingested the substance should be assessed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

The nurse is caring for a client experiencing the effects of a drug overdose. Which prescription should the nurse anticipate to enhance removal of the substance from the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Administer activated charcoal.

Change the pH of urine.

Prepare the client for enemas.

Insert a nasogastric tube.

Prepare corticosteroids for administration.

Answer: 1, 2, 3, 4

Explanation:

Charcoal works by binding with the poison agent.

Changing the pH of the urine may help to increase excretion.

Whole-bowel irritation may be considered.

A nasogastric tube might be needed for lavage of stomach contents.

Corticosteroids are not used to enhance the removal of poison from the body.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-2 Discuss the role of the nurse in preparing for and responding to worldwide epidemics and bioterrorist activity.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

A client with Ebola is hospitalized with fever and malaise. For which length of time in days should the nurse anticipate the client being in strict isolation?

Answer: 21

Explanation: The incubation period for Ebola is 21 days. The client should be isolated for the entire period of time.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 3.6 Advance preparedness to protect population health during disasters and public health emergencies. | NLN Competencies: Context and Environment: Apply evidence to support decision making in situations characterized by ambiguity and uncertainty. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 11-6 Identify the types of chemical agents that have the potential to cause mass casualty events.

MNL Learning Outcome: Examine the issues of emergency preparedness and the management of poisoning.

***Pharmacology for Nurses, 7e (Adams)***

## Chapter 12 Cholinergic Drugs Affecting the Autonomic Nervous System

A client's heart rate is 72 beats per minute with a regular rhythm. In which way will the nurse interpret this data in relation to the client's peripheral nervous system?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The sympathetic system is in control.

The parasympathetic system is dominating.

Both parasympathetic and sympathetic systems are influencing cardiac status.

The autonomic nervous system is affecting cardiac status.

The somatic nervous system is affecting cardiac status.

Answer: 2, 3, 4

Explanation:

If the sympathetic system was in control, the heart rate would be accelerated.

Restful cardiac response indicates that the primary input is from the parasympathetic system.

These two systems work in tandem to regulate the cardiac response.

Both the sympathetic and parasympathetic systems are part of the autonomic system.

The somatic system is separate from the autonomic system.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is researching the development of drugs that inhibit the parasympathetic nervous system. On which drug classification should the nurse focus?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Anticholinergics

Parasympathomimetics

Parasympatholytics

Cholinergics

Muscarinic blockers

Answer: 1, 3, 5

Explanation:

Anticholinergics inhibit the parasympathetic nervous system.

Parasympathomimetic drugs stimulate the parasympathetic nervous system.

Parasympatholytic drugs inhibit the parasympathetic nervous system.

Cholinergic drugs stimulate the parasympathetic nervous system.

Muscarinic blockers inhibit the parasympathetic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-5 Identify clinical indications and adverse effects of cholinergic agonist drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse reviews drugs prescribed for a client. Which adrenergic receptor should the nurse identify that is associated with the sympathetic nervous system?

Beta

Dopamine

Muscarinic

Norepinephrine

Answer: 1

Explanation:

The adrenergic receptors associated with the sympathetic nervous system include both beta and alpha receptors.

A dopamine is a neurotransmitter in the brain.

Muscarinic receptors are cholinergic receptors in the parasympathetic system.

Norepinephrine is a chemical in the body that is both a stress hormone and a neurotransmitter.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Assessment

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is prescribed an oral drug containing atropine. For which client statement should the nurse withhold the drug and contact the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I would like to wait a few minutes to take this as I just drank some aloe juice."

"Can I take this at the same time as my procainamide?"

"I have had a headache this morning."

"I am allergic to penicillin."

"My gallbladder surgery is scheduled for next week."

Answer: 1, 2

Explanation:

Atropine should be used with caution in those who use aloe.

There is a drug—drug interaction between atropine and procainamide.

Headache does not prevent use of atropine.

Allergy to penicillin does not prevent use of atropine.

Gallbladder surgery for next week would not prevent use of atropine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-6 Identify clinical indications and adverse effects of anticholinergic drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client with myasthenia gravis receives teaching about pyridostigmine (Mestinon). Which client statement indicates to the nurse that teaching was effective?

"My heart may beat slower while I am on this drug."

"I will need to increase my fluid intake with this medication."

"I must take this medication immediately before eating a full meal."

"It is really important to take my medication on time."

Answer: 4

Explanation:

Heart rate is typically increased by anticholinergic drugs.

There is no reason to increase fluid intake with this drug.

There is no reason this drug should be taken immediately prior to eating a full meal.

Maintaining an optimum blood level of the drug is crucial in promoting muscle functioning, so it is important for the client to take the medication on time and as directed.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client with an enlarged prostate is prescribed bethanechol (Urecholine). Which action should the nurse take?

Hold the drug and prepare to catheterize the client.

Administer the drug and measure urinary output.

Administer the drug and encourage oral fluids.

Hold the drug and contact the healthcare provider.

Answer: 4

Explanation:

There should be no need for catheterization.

Measuring urinary output is not the best answer.

Encouraging oral fluids would exacerbate the problem.

Bethanechol (Urecholine) relaxes the urinary sphincter and increases voiding pressure. It is contraindicated with any physical obstruction of the urinary tract, such as an enlarged prostate gland.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client being prepared for surgery asks why the drug glycopyrrolate (Robinul) is being given. Which response should the nurse make?

"It will decrease your respiratory secretions during surgery."

"It will increase your urinary output during surgery."

"It will help you breathe better during surgery."

"It will help maintain your blood pressure during surgery."

Answer: 1

Explanation:

Anticholinergics dry secretions; a decrease in respiratory secretions is indicated prior to surgery.

Anticholinergic drugs do not increase urinary output.

Anticholinergic drugs do not facilitate respirations.

Anticholinergic drugs do not maintain blood pressure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is preparing medications for assigned clients. For which client should the nurse question giving benztropine (Cogentin)?

Client with a fractured femur

Client with tachycardia

Client with an irritable colon

Client with diarrhea

Answer: 2

Explanation:

There is no contraindication with a fractured femur and anticholinergic drugs.

Anticholinergic drugs increase the heart rate; a client with tachycardia should not receive benztropine (Cogentin).

Anticholinergic drugs slow gastrointestinal (GI) motility; this would help with an irritable colon.

Anticholinergic drugs slow gastrointestinal (GI) motility; this would help with diarrhea.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is preparing medications for assigned clients. For which condition should the nurse question giving atropine?

Glaucoma

Hyperthyroidism

Hiatal hernia

Lung cancer

Answer: 1

Explanation:

Anticholinergic drugs can increase pressure in the eye; they must be avoided in clients with glaucoma.

Anticholinergic drugs are not contraindicated in clients with hyperthyroidism.

Anticholinergic drugs are not contraindicated in clients with a hiatal hernia.

Anticholinergic drugs are not contraindicated in clients with lung cancer.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 12-6 Identify clinical indications and adverse effects of anticholinergic drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is prescribed dicyclomine (Bentyl). Which assessment should the nurse complete before giving the medication?

Does the client have light sensitivity?

Is the client able to urinate?

Does the client have a history of alcoholism?

Is the client dizzy upon standing?

Answer: 2

Explanation:

Anticholinergic drugs are not contraindicated in a client with light sensitivity.

Anticholinergic drugs can cause or increase urinary hesitancy or retention.

Anticholinergic drugs are not contraindicated in a client with a history of alcoholism.

Anticholinergic drugs are not contraindicated in a client who is dizzy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client with quadriplegia is prescribed oxybutynin (Ditropan). Which assessment should the nurse complete before providing this medication?

Is the client irritable?

Is the client constipated?

Is the client gaining weight?

Is the client lethargic?

Answer: 2

Explanation:

Anticholinergic drugs do not cause irritability.

Anticholinergics slow gastrointestinal motility and can increase the risk for constipation.

Anticholinergic drugs do not cause weight gain.

Anticholinergic drugs do not cause lethargy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nursing instructor teaches about the nervous system. Which statement made by a student indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The central nervous system includes the brain and spinal cord."

"The peripheral nervous system has mainly sensory functions."

"The somatic nervous system gives us voluntary control over our gastrointestinal tract."

"The nervous system helps us react to environmental changes."

"The somatic nervous system gives us voluntary control over moving."

Answer: 1, 4, 5

Explanation:

The central nervous system includes the brain and spinal cord.

The peripheral nervous system has both sensory and motor divisions.

The somatic nervous system gives voluntary control over skeletal muscles.

The nervous system provides reaction to environmental changes.

The somatic nervous system provides voluntary control over moving.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 12-1 Identify the functional divisions of the nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nursing instructor teaches about the autonomic nervous system. Which student statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"The sympathetic and parasympathetic systems are not always opposite in their effects."

"The parasympathetic nervous system is the 'fight-or-flight' response."

"Sympathetic stimulation causes dilation of arterioles."

"The parasympathetic nervous system causes bronchial constriction."

"The sympathetic nervous system is activated under stress."

Answer: 1, 4, 5

Explanation:

The sympathetic and parasympathetic systems are not always opposite in their effects.

The parasympathetic nervous system is the rest-and-digest response.

Sympathetic stimulation causes constriction of arterioles.

The parasympathetic nervous system causes bronchial constriction.

The sympathetic nervous system is activated under stress.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is asked if medications can make more neurotransmitters. Which response should the nurse make?

"No, but medications can heal diseases of the autonomic nervous system."

"Yes, some of the newer medications are very good at doing this."

"Yes, but the newer drugs that do this have some serious side effects."

"No, medications can only increase or decrease the action of neurotransmitters."

Answer: 4

Explanation:

There are virtually no diseases of the autonomic nervous system to heal.

Even the newest medications cannot manufacture new neurotransmitters.

Medications cannot manufacture new neurotransmitters, even if they have serious side effects.

Medications cannot manufacture new neurotransmitters; they can only increase or decrease their action.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other

disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Implementation

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is asked to identify the part of the nervous system that is responsible for muscle movement. Which response should the nurse make?

Somatic

Sympathetic

Autonomic

Parasympathetic

Answer: 1

Explanation:

The somatic nervous system (a division of the peripheral nervous system) controls voluntary movement.

The sympathetic nervous system is a division of the autonomic nervous system.

The autonomic nervous system involves involuntary responses.

The parasympathetic nervous system is a division of the autonomic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is providing a medication to a client that affects the sympathetic nervous system. Which response should the nurse expect to assess?

Constricted bronchi

Increased salivation

Stimulated sex organs

Dilated pupils

Answer: 4

Explanation:

The sympathetic nervous system increases heart rate, but the parasympathetic system constricts bronchioles.

Parasympathetic innervation dilates peripheral arteries and stimulates digestion.

The sympathetic system inhibits salivation and stimulates sex organs.

Relaxation of the bladder and pupil dilation is regulated by the sympathetic nervous system.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is receiving a medication that activates adrenergic receptors. Which response should the nurse expect to assess in the client?

Fight-or-flight effects

Rest-and-digest effects

Increased blood volume

Bronchial constriction

Answer: 1

Explanation:

Adrenergic receptors are found within the sympathetic nervous system. Sympathetic nervous system activation produces the fight-or-flight response.

Adrenergic receptors are found within the sympathetic nervous system. Parasympathetic nervous system activation produces the rest-and-digest response.

Blood volume increases are not specifically controlled by the nervous system, but distribution of blood is under nervous system control.

Adrenergic receptors are found within the sympathetic nervous system. Parasympathetic nervous system activation initiates bronchial constriction.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is reviewing drugs prescribed for a client. Which physiologic response should the nurse expect when giving a drug that inhibits the function of the autonomic nervous system?  
Bind and then stimulate the postsynaptic neuron.

Prohibit neurotransmitter reuptake.

Increase neurotransmitter synthesis.

Prevent the storage of neurotransmitter in vesicles.

Answer: 4

Explanation:

Stimulation of the postsynaptic neuron would enhance function.

Prohibiting neurotransmitter intake would lower the amount available.

Increasing neurotransmitter synthesis would decrease the amount available.

The more neurotransmitters available, the greater the function/stimulation of the autonomic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is providing a client with a medication that affects the ganglionic synapse of the sympathetic and parasympathetic nervous systems. Which receptor should the nurse recall is being affected?

Alpha

Muscarinic

Nicotinic

Beta

Answer: 3

Explanation:

The term *alpha* is not used for these receptors.

Muscarinic receptors are found at the ganglionic synapse of the parasympathetic nervous system.

Nicotinic receptors are found at the ganglionic synapse of both sympathetic and parasympathetic nervous systems.

The term *beta* is not used for these receptors.

Page Ref: 131

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 12-4 Compare and contrast the types of responses that occur when drugs activate nicotinic or muscarinic receptors.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is prescribed an anticholinergic drug. What discharge instructions should the nurse provide?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Wear sunglasses in bright light.

Limit fluid intake.

Increase fiber intake.

Avoid hot showers.

Avoid milk and dairy products.

Answer: 1, 3, 4

Explanation:

Anticholinergic drugs may cause photosensitivity.

Fluids should be increased.

Use of anticholinergics increases risk for constipation. Fiber intake should be increased.

Use of anticholinergics reduces ability of clients to sweat and self-regulate temperature. Hot environments, including hot showers and baths, should be avoided.

There is no reason to avoid dairy products.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is receiving a medication that affects acetylcholine. Which information should the nurse recall about this neurotransmitter?

Acetylcholine is rapidly destroyed once released.

Acetylcholine needs to be replaced with medication.

Acetylcholine will cause the heart rate to increase and blood pressure to drop.

Acetylcholine does not affect the somatic system.

Answer: 1

Explanation:

Acetylcholine is rapidly destroyed by the enzyme acetylcholinesterase and choline is reused to make more acetylcholine.

Acetylcholine is not replaced with medication.

Acetylcholine can lower blood pressure, but it also lowers heart rate.

Acetylcholine has profound effects on the somatic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the

discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is asked to explain the action of atropine. Which response should the nurse make about the effects of this medication to increase the heart rate?

Blocking the beta receptors of the parasympathetic nervous system

Directly stimulating the sympathetic nervous system

Potentiating the effects of acetylcholine on nicotinic receptors

Blocking the effects of acetylcholine by occupying muscarinic receptors

Answer: 4

Explanation:

Atropine occupies muscarinic receptors.

Atropine blocks parasympathetic actions of acetylcholine.

Atropine does not potentiate acetylcholine effects on nicotinic receptors.

Atropine is a cholinergic-blocking agent that occupies muscarinic receptors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-5 Identify clinical indications and adverse effects of cholinergic agonist drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A student nurse asks which client situations are considered involuntary responses to autonomic nervous system control. Which response should the nurse list?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Sweating when hot

Stepping over a chair to prevent falling

Complaining of nausea

Salivating at the smell of food

Breathing deeper when running

Answer: 1, 4, 5

Explanation:

Sweating is an involuntary response that is controlled by the sympathetic nervous system.

Muscle movement is controlled by the somatic nervous system.

Complaining of nausea is a result of sensory neuron input and is not part of the autonomic system.

Salivation is involuntary and is controlled by the autonomic nervous system.

Breathing deeper when running is controlled by the autonomic nervous system. The act of running is controlled by the somatic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client has sustained a large blood loss. During the assessment, which findings should the nurse identify are under the control of the nervous system?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Heart rate

Blood pressure

Pupil size

Bowel sounds

Fluid volume

Answer: 1, 2, 3, 4

Explanation:

The brain, spinal cord, and peripheral nerves act as a smoothly integrated whole to accomplish minute-to-minute changes in essential functions such as heart rate.

The brain, spinal cord, and peripheral nerves act as a smoothly integrated whole to accomplish minute-to-minute changes in essential functions such as blood pressure.

The brain, spinal cord, and peripheral nerves act as a smoothly integrated whole to accomplish minute-to-minute changes in essential functions such as pupil size.

The brain, spinal cord, and peripheral nerves act as a smoothly integrated whole to accomplish minute-to-minute changes in essential functions such as intestinal motility.

Although the brain, spinal cord, and peripheral nerves act as a smoothly integrated whole to accomplish minute-to-minute changes in essential functions, fluid volume is not under the control of the nervous system.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-1 Identify the functional divisions of the nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is caring for a client with multisystem organ failure. Which client assessment findings are under the control of the sympathetic nervous system?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Blood glucose level 210 mg/dL

Blood pressure 180/90 mmHg

Extremities are cool

Respiratory rate 14 and regular

Hyperactive bowel sounds

Answer: 1, 2, 3

Explanation:

Metabolic effects such as an increase in blood glucose are a sympathetic nervous system function.

The constriction and relaxation of arterioles are controlled entirely by the sympathetic nervous system.

The sympathetic nervous system controls release of epinephrine and norepinephrine, which result in peripheral vasoconstriction.

The respiratory rate would be faster and deeper when under sympathetic nervous system control.

When under sympathetic nervous system control, peristalsis is temporarily suspended.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-2 Compare and contrast the actions of the parasympathetic and sympathetic divisions of the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse is reviewing the autonomic nervous system with a new graduate. Which structure of this system should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Preganglionic neuron

Postganglionic neuron

Synaptic cleft

Norepinephrine

Dopamine

Answer: 1, 2, 3

Explanation:

The basic unit of the autonomic nervous system is a two-neuron chain. The first neuron, called the preganglionic neuron, originates in the central nervous system.

The preganglionic neuron connects with the second nerve in the autonomic nervous system two-neuron chain through the ganglia, which contains the postganglionic neuron.

Autonomic messages must cross the synaptic cleft.

Acetylcholine is the neurotransmitter released at cholinergic receptors.

Dopamine is a neurotransmitter within the limbic system and hypothalamus and not the autonomic nervous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

The nurse educator is reviewing the process of synaptic transmission following the sympathetic pathway. In which order will the nurse explain the steps of synaptic transmission?

Action potential encounters adrenergic receptors

Action potential encounters cholinergic receptors

Action potential travels across the preganglionic neuron

Action potential travels across the postganglionic neuron

Target tissue is reached.

Answer: 3, 2, 4, 1, 5

Explanation: In the sympathetic pathway, the action potential travels down the preganglionic neuron, encounters cholinergic receptors where it crosses the first ganglionic synapse, travels down the postganglionic neuron, encounters adrenergic receptors, and then reaches target tissues.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 12-3 Explain how information is transmitted throughout the nervous system and the neurotransmitters important to the autonomic nervous system.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is prescribed a medication that will block muscarinic receptors. Which body system should the nurse expect to be affected?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Eyes

Respiratory

Cardiac

Endocrine

Metabolic

Answer: 1, 2, 3

Explanation:

Medications that block muscarinic receptors are used during ophthalmic procedures.

Medications that block muscarinic receptors are used in the pharmacologic treatment of asthma.

Medications that block muscarinic receptors are used in the pharmacologic treatment of bradycardia.

Medications that block muscarinic receptors are not used in the treatment of endocrine disorders.

Medications that block muscarinic receptors are not used in the treatment of metabolic disorders.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 12-4 Compare and contrast the types of responses that occur when drugs activate nicotinic or muscarinic receptors.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client is prescribed an anticholinergic medication. Which adverse effect should the nurse instruct the client to report to the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Slow heart rate

Cardiac palpitations

Decreased urinary output

Development of tremors

Diarrhea

Answer: 2, 3, 4

Explanation:

Tachycardia is an adverse effect of an anticholinergic medication.

Dysrhythmia is an adverse effect of this drug.

Decreased urinary output is an adverse effect of this drug.

Tremors are an adverse effect of this drug.

Diarrhea is not an expected adverse effect of this drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

A client with myasthenia gravis (MG) has an abrupt onset of increased muscle weakness and difficulty swallowing. Which medication should the nurse anticipate being used to treat a cholinergic crisis?

Donepezil (Aricept)

Pyridostigmine (Mestinon)

Neostigmine (Prostigmin)

Atropine (Atropine Injectable)

Answer: 4

Explanation:

Donepezil (Aricept) is prescribed for the treatment of Alzheimer's disease and would not be used in this situation.

Pyridostigmine (Mestinon) is prescribed for the treatment of MG but would not be used to treat cholinergic crisis.

Neostigmine (Prostigmin) is prescribed for the treatment of MG but would not be used to treat cholinergic crisis.

Atropine (Atropine Injectable) is given if the test results in a cholinergic crisis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science

and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 12-8 Apply the nursing process to care for patients receiving pharmacotherapy with cholinergic drugs and cholinergic-blocking drugs.

MNL Learning Outcome: Examine autonomic nervous system and cholinergic drugs that affect the autonomic nervous system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 13 Adrenergic Drugs Affecting the Autonomic Nervous System**

A client is prescribed an adrenergic agonist. Which statement indicates that the client is experiencing a side effect of the medication?

"Will you check my pupils? I can't see very well at all."

"I am so thirsty; will you please bring me another pitcher of water?"

"I am so anxious; I really need to walk around the room."

"I feel so sleepy that I don't think I can eat my dinner."

Answer: 3

Explanation:

Adrenergic drugs dilate the pupils, so vision should not be affected.

Anticholinergic, not adrenergic, drugs dry secretions; therefore the patient would not be thirsty.

Adrenergic drugs mimic the effect of the sympathetic nervous system. This can result in anxiety and restlessness.

Adrenergic drugs increase alertness, so the patient would not be sleepy.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect

for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha1-, alpha2-, beta1-, beta2-, or beta3-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse notes that a client is prescribed drugs that affect alpha receptors and beta receptors. Which outcome should cause the nurse concern?

The client is at risk for a hypertensive crisis.

The effects of the beta drug will be decreased.

The drugs are compatible; there will not be any adverse effects.

The effects of the alpha drug will be increased.

Answer: 2

Explanation:

A hypertensive crisis is unlikely.

Beta-adrenergic blockers block the receptors that are stimulated by adrenergic drugs; the effects of the alpha drug would be decreased.

The drugs are not compatible.

The effects of the alpha drug would not be increased.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse provides teaching to a client prescribed atenolol (Tenormin). Which statement should indicate to the nurse that client teaching was effective?

"I need to take my pulse every day."

"If I have any side effects, I will stop the medication."

"I cannot take this drug if I develop glaucoma."

"I cannot continue to have my morning cup of coffee."

Answer: 1

Explanation:

Beta blockers slow the heart rate; therefore, the client must monitor the pulse every day.

Beta blockers should not be stopped suddenly.

Adrenergic blockers, not beta blockers, are used to treat glaucoma.

Caffeine is not prohibited with beta blockers.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is prescribed prazosin (Minipress). Which information should the nurse include in the client education?

Do not take over-the-counter herbal preparations containing saw palmetto.

Avoid tub baths.

Decrease the intake of sodium.

Wear sunglasses when outdoors.

Answer: 1

Explanation:

A hypotensive response may occur when saw palmetto is taken concurrently.

Patients should be careful when taking tub baths, especially if the drug causes dizziness, but such baths are not prohibited.

There is no relationship between alpha blockers and sodium intake.

Alpha blockers do not cause photophobia; sunglasses are not required with this drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed an alpha<sub>1</sub> adrenergic agonist drug. On which organ should the nurse expect to assess the effects of this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Kidneys

Eyes

Heart

Bowels

Lungs

Answer: 1, 2, 4, 5

Explanation:

Alpha<sub>1</sub> receptors have potential to affect the renal system.

Alpha<sub>1</sub> receptors result in dilation of the pupils.

Alpha<sub>1</sub> receptors do not affect receptors in the heart.

Alpha<sub>1</sub> receptors have potential to affect receptors in the gastrointestinal tract.

Alpha<sub>1</sub> receptors have potential to affect receptors in the respiratory system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha<sub>1</sub>-, alpha<sub>2</sub>-, beta<sub>1</sub>-, beta<sub>2</sub>-, or beta<sub>3</sub>-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is prescribed a drug that activates alpha<sub>2</sub> receptors. Which physiological response should the nurse anticipate when planning care for the client?

Inhibition of norepinephrine release

Absence of monoamine oxidase

Increased lipolysis

Destruction of presynaptic nerve terminals

Answer: 1

Explanation:

The action of alpha<sub>2</sub> receptors is to inhibit the release of norepinephrine.

Alpha<sub>2</sub> receptors do not destroy monoamine oxidase.

Alpha<sub>2</sub> receptors do not increase lipolysis.

Alpha<sub>2</sub> receptors do not destroy presynaptic nerve terminals.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha<sub>1</sub>-, alpha<sub>2</sub>-, beta<sub>1</sub>-, beta<sub>2</sub>-, or beta<sub>3</sub>-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is prescribed a beta2 agonist. Which condition should the nurse anticipate being treated with this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Heart failure

Asthma

Chronic obstructive pulmonary disease

Overactive bladder

Nasal congestion

Answer: 2, 3

Explanation:

Beta1 agonists are most likely to be given to patients with heart failure.

Beta2 agonists are useful in the treatment of asthma.

Beta2 agonists are useful in the treatment of chronic obstructive pulmonary disease.

Beta3 agonists are most likely to be given to patients with overactive bladder.

Alpha1 agonists are most likely to be given to patients with nasal congestion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha1-, alpha2-, beta1-, beta2-, or beta3-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse is reviewing the production of catecholamines. Which substance should the nurse identify that is used in their initial production?

Norepinephrine

Tyrosine

Dopamine

L-dopa

Answer: 2

Explanation:

The synthesis of catecholamines begins with tyrosine then moves to L-dopa, dopamine, and then norepinephrine.

The synthesis of catecholamines begins with tyrosine.

The synthesis of catecholamines begins with tyrosine then moves to L-dopa and dopamine.

The synthesis of catecholamines begins with tyrosine then moves to L-dopa.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-2 Identify the actions, clinical uses, and adverse effects of adrenergic agonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client who is in heart failure is administered a beta<sub>1</sub> agonist. Which assessment finding indicates the medication is effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Heart rate increases

Pulse becomes stronger

Pupils dilate

Dysrhythmias dissipate

Blood pressure drops

Answer: 1, 2

Explanation:

One of the effects of beta<sub>1</sub> agonists is to increase the heart rate.

One of the effects of beta<sub>1</sub> agonists is to increase the force of cardiac contraction, which would be felt as a stronger pulse.

Pupil dilation is an effect of alpha<sub>1</sub> drugs.

Beta<sub>1</sub> antagonists are given to control dysrhythmias.

Beta<sub>1</sub> antagonists are given to control hypertension.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha<sub>1</sub>-, alpha<sub>2</sub>-, beta<sub>1</sub>-, beta<sub>2</sub>-, or beta<sub>3</sub>-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed isoproterenol (Isuprel). Which receptors should the nurse expect to be stimulated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Alpha1

Alpha2

Beta1

Beta2

Beta3

Answer: 3, 4

Explanation:

The prescription does not affect alpha1 receptors.

The prescription does not affect alpha2 receptors.

Isoproterenol (Isuprel) is a nonselective drug that stimulates beta1 receptors.

Isoproterenol (Isuprel) is a nonselective drug that stimulates beta2 receptors.

This prescription does not affect beta3 receptors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha1-, alpha2-, beta1-, beta2-, or beta3-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse has provided teaching about the use of an auto injection of epinephrine. Which statement made by the client indicates further teaching is required?

"I will call 911 before I inject the epinephrine."

"I will use my auto-injector immediately if I think I am having an allergic reaction."

"I will make sure I have my auto-injector available at all times."

"I will notify my healthcare provider after I inject the epinephrine."

Answer: 1

Explanation:

Emergency response should be activated after the auto-injector is used.

The auto-injector should be used immediately if the client thinks they are having an allergic reaction.

The auto-injector should be available at all times.

The healthcare provider should be notified if the auto-injector is needed and has been used.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse is preparing to provide instructions on the use of an epinephrine auto-injector. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

If you need to use this pen, seek medical advice as follow-up.

You can dispose of a used EpiPen in your regular trash.

Keep an extra EpiPen on hand.

Store this device in your refrigerator.

Carry an EpiPen in your car's glovebox.

Answer: 1, 3

Explanation:

If it is necessary to use the EpiPen, it is important to seek immediate follow-up by calling 911 or the provider.

To avoid exposing another to an injury from a used needle, the used EpiPen should be disposed of properly.

It is recommended that the patient have an extra EpiPen on hand in case of emergency or failure of the original unit.

It is not necessary to refrigerate the EpiPen.

The EpiPen should be kept in a cool, dark place. The temperature of a glovebox in a car may become too hot.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed phenylephrine (Neo-Synephrine) spray for nasal congestion. Which information about adverse effects should the nurse provide in discharge teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"This drug may cause some stinging or burning in your nose."

"You may notice that your nasal secretions take on a slightly orange tint."

"You may feel like your blood pressure is low for the first few times you use this spray."

"Rebound congestion may occur if the prescription is used more than a few days."

"Do not drink herbal teas while taking this medication."

Answer: 1, 4

Explanation:

Intranasal use of this drug can cause burning of the mucosa.

Orange-tinted nasal secretions are not an expected adverse effect.

Intranasal medications, if used properly, should have little or no effect on blood pressure.

Rebound congestion is likely to occur if the drug is used for over 3—5 days.

There are no known drug—herbal interactions with this drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-3 Identify the actions, clinical uses, and adverse effects of adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse is preparing to administer an adrenergic drug intravenously. Which action should the nurse include in the plan of care?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Give the drug as rapidly as possible by intravenous push.

Dilute the drug before administration.

Use an infusion pump to control rate of administration.

Monitor for blanching at the infusion site.

Advise the patient that a sweet taste may occur as the drug is being given.

Answer: 2, 3, 4

Explanation:

These drugs should be administered slowly.

These drugs should be diluted prior to administration.

Infusion of these drugs should be controlled via an infusion pump.

Blanching at the infusion site indicates probable extravasation. The drip should be stopped.

There is no evidence that a sweet taste will occur.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse is reviewing routine medications for a client prescribed phenylephrine (Neo-Synephrine). Which medication is most concerning to the nurse?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

MAO inhibitors

Tricyclic antidepressants

Iron supplements

Digoxin

Aspirin

Answer: 1, 2, 3, 4

Explanation:

Concurrent use with MAO inhibitors may result in hypertensive crisis.

Tricyclic antidepressants can potentiate the effects of phenylephrine (Neo-Synephrine).

Iron supplements are incompatible with phenylephrine (Neo-Synephrine).

Dysrhythmias may occur when phenylephrine (Neo-Synephrine) and digoxin are used concurrently.

There is no incompatibility with aspirin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-2 Identify the actions, clinical uses, and adverse effects of adrenergic agonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client taking an adrenergic drug reports nervousness and insomnia. Which question should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"How much coffee do you drink?"

"Have you recently increased your intake of dairy products?"

"Do you eat chocolate?"

"When was the last time you ate pickled foods or aged cheese?"

"How much wine or other alcoholic beverages do you drink?"

Answer: 1, 3

Explanation:

The caffeine in coffee may cause excessive nervousness, insomnia, and tremors.

There are no drug—food interactions with dairy products.

The caffeine in chocolate may cause excessive nervousness, insomnia, and tremors.

There are no drug—food interactions with pickled foods or aged cheese.

There are no drug—food interactions with beverages that contain alcohol.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate

assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client using an adrenergic nasal spray for 2 weeks reports an exacerbation of nasal congestion. Which information should the nurse provide the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"You are having an allergic reaction to the nasal spray. Stop using it immediately."

"You probably have developed a secondary infection."

"Try increasing the amount of fluids you are drinking."

"Switch to a saline-based nasal spray."

"Continue to use your current nasal spray until the congestion goes away."

Answer: 3, 4

Explanation:

There is no evidence that an allergic reaction has occurred.

There is no evidence that a secondary infection has occurred.

Increasing oral fluids may help to thin secretions for easier removal.

The client is most likely experiencing rebound congestion. Switching from the adrenergic spray to a saline spray will keep the mucosa moist and more comfortable until the effects of the adrenergic spray subside.

The client is most likely experiencing rebound congestion. Continued use of the prescription is contraindicated.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

An older adult has received adrenergic eyedrops prior to a retinal exam. Which information should the nurse include in the client's discharge teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Do not drive until the effects of the eyedrops have worn off."

"Wear sunglasses when in bright light."

"You may be more comfortable in a darkened room."

"You may experience burning in your eyes for a couple of days."

"Do not eat or drink anything for at least an hour after discharge."

Answer: 1, 2, 3

Explanation:

Older adults may notice blurring of vision after receiving drops to dilate the eyes. The patient should not drive until vision is clear.

Photosensitivity is a common effect, and protective eyewear should be worn.

Photosensitivity is a common effect, and the patient may be more comfortable in a darkened room or with a soft cloth covering the eyes.

The burning associated with these drops should be transient. It should not last for "a couple of days."

There is no reason for the patient to be NPO.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed an adrenergic nasal spray. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Do not share this spray with anyone."

"Sit upright while using this spray."

"Only use this spray for 3—5 days."

"Do not shake the bottle before using this spray."

"Keep this spray refrigerated."

Answer: 1, 2, 3

Explanation:

Sharing nasal sprays may spread infection.

The client should sit upright to use this medication so that it is delivered appropriately, avoiding overdose.

Adrenergic nasal sprays may cause rebound congestion if used more than 3—5 days.

There is no reason to avoid shaking the bottle.

There is no indication that the medication should be refrigerated.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is prescribed an adrenergic antagonist. Which information about this medication should the nurse recall?

They are also known as anticholinergics.

The actions will block the neurotransmitter acetylcholine.

The actions are the opposite of those of sympathomimetics.

They will stimulate the sympathetic nervous system.

Answer: 3

Explanation:

Adrenergic antagonists are also known as sympatholytics.

Adrenergic antagonists block adrenergic receptors, not cholinergic receptors.

Adrenergic antagonists inhibit the actions of the sympathetic nervous system.

Adrenergic antagonists inhibit the actions of the sympathetic nervous system.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-3 Identify the actions, clinical uses, and adverse effects of adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client with preexisting conditions and hypertension reports taking a partner's adrenergic antagonist for a week. Which preexisting condition should cause the nurse concern?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Obesity

Diabetes mellitus

COPD

Asthma

Rheumatoid arthritis

Answer: 2, 3, 4

Explanation:

While obesity may be contributing to the client's hypertension, the use of an adrenergic antagonist is not contraindicated.

Beta blockers may cause hyperglycemia or hypoglycemia and may mask the symptoms of hypoglycemia in clients with diabetes.

Beta blockers may cause significant bronchial constriction.

Beta blockers may cause significant bronchial constriction.

Beta blockers are not contraindicated for use in clients with rheumatoid arthritis.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client reports not taking a prescribed beta blocker because it caused fatigue. Which assessment should the nurse make a priority?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Blood pressure

Heart rhythm

Urinary output

Presence of chest pain

Presence of respiratory crackles

Answer: 1, 2, 4

Explanation:

Abruptly discontinuing beta blockers may result in acute resurgence of symptoms such as hypertension.

Abruptly discontinuing beta blockers may result in acute resurgence of symptoms such as dysrhythmia.

Abruptly discontinuing beta blockers should not have an immediate effect on urinary output.

Abruptly discontinuing beta blockers may result in chest pain.

Abruptly discontinuing beta blockers should not result in pulmonary complications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed prazosin (Minipress). Which information should the nurse provide?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Stay out of the sun until you determine if you become sun-sensitive."

"Take this medication just before you go to bed."

"This medication may make you dizzy."

"This medication may slow your heart rate noticeably."

"Do not take this medication with milk."

Answer: 2, 3

Explanation:

There is no indication that this medication will make the patient sensitive to the sun.

This medication should be taken just before bedtime as it may cause drowsiness or light-headedness.

Dizziness is a common adverse effect of this drug.

Tachycardia is the expected adverse effect.

There is no reason to avoid milk when taking this drug.

Page Ref: 150

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-3 Identify the actions, clinical uses, and adverse effects of adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client who received prazosin (Minipress) became unconscious 30 minutes after the first dose. Which prescription should the nurse prepare for resuscitation?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Normal saline

Dobutamine

Atenolol (Tenormin)

Carvedilol (Coreg)

Propranolol (Inderal)

Answer: 1, 2

Explanation:

Unconsciousness after the first dose of prazosin (Minipress) is typically due to severe hypotension. Normal saline can be used as a volume expander.

Unconsciousness after the first dose of prazosin (Minipress) is typically due to severe hypotension. Treatment with a vasopressor such as dobutamine may be indicated.

Atenolol (Tenormin) is an adrenergic blocker and would exacerbate the problem.

Carvedilol (Coreg) is an adrenergic blocker and would exacerbate the problem.

Propranolol (Inderal) is an adrenergic blocker and would exacerbate the problem.

Page Ref: 150

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client has been prescribed an adrenergic antagonist for treatment of hypertension. Which information should the nurse provide?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Rise from a sitting position slowly."

"Sit on the side of the bed a few moments before you stand."

"If you feel dizzy, add more salt to your diet."

"If you feel dizzy, sit or lie down until the dizziness passes."

"Dizziness is expected so just continue your daily activities."

Answer: 1, 2, 4

Explanation:

Patients who are starting on adrenergic-blocking drugs should move slowly from the sitting position.

Sitting on the side of the bed will help blood pressure normalize before standing.

Additional salt is not indicated for people who have hypertension.

If the patient feels dizzy, sitting down or lying down will help to prevent falls.

The patient should monitor dizziness and should take safety precautions until acclimated to the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is taking an adrenergic antagonist for benign prostatic hypertrophy. Which assessment question should the nurse ask?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"What color is your urine?"

"Do you have any difficulty starting to urinate?"

"Do you have the feeling that your bladder is full?"

"When was your last bowel movement?"

"Have you noticed being more hungry than usual?"

Answer: 2, 3

Explanation:

Adrenergic antagonists do not change the color of the urine.

Adrenergic antagonists may result in hesitancy.

Adrenergic antagonists may result in retention of urine.

Questions about time of last bowel movement are not indicated.

Adrenergic antagonists do not affect appetite.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate

assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 13-4 Use the nursing process and the clinical judgment management model to care for patients receiving adrenergic agonists and adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse is reviewing the use of sympathomimetic medications. To which adrenergic receptor should the nurse recall that these medications bind?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Epinephrine

Dopamine

Amphetamine

Cocaine

Ephedrine

Answer: 1, 2, 5

Explanation:

Epinephrine is an endogenous catecholamine that acts directly by binding to and activating adrenergic receptors.

Dopamine is an endogenous catecholamine that acts directly by binding to and activating adrenergic receptors.

Amphetamine acts indirectly by affecting norepinephrine release.

Cocaine acts indirectly by affecting norepinephrine release.

Ephedrine acts both directly and indirectly.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-1 Compare and contrast the types of responses that occur when drugs activate alpha1-, alpha2-, beta1-, beta2-, or beta3-adrenergic receptors.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A client is being assessed for pheochromocytoma. Which intervention should the nurse implement?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Monitor blood pressure

Monitor bowel sounds

Administer phentolamine

Administer normal saline rapidly

Insert a urinary catheter to bypass prostatic enlargement

Answer: 1, 3

Explanation:

Pheochromocytoma affects blood pressure, so continuous monitoring is necessary.

While monitoring bowel sounds is part of all ongoing assessment, it is not particular to pheochromocytoma.

Sudden and marked reduction of blood pressure results when a patient with pheochromocytoma is administered phentolamine parenterally.

Rapid administration of normal saline is treatment for hypotension. This client will be hypertensive.

A urinary catheter may be inserted, but this is not because of prostatic enlargement.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 13-3 Identify the actions, clinical uses, and adverse effects of adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

The nurse suspects a client has received too much phenylephrine (Neo-Synephrine). Which finding supports the nurse's suspicion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

The client's heart rate has increased from 72 bpm to 114 bpm.

The client reports feeling anxious.

The client's blood pressure has increased from 140/86 mmHg to 180/98 mmHg.

The client's stools are dark and tarry.

The client reports burning at the injection site.

Answer: 1, 3

Explanation:

An overdose of phenylephrine (Neo-Synephrine) will result in tachycardia.

Feelings of anxiety and restlessness are expected adverse effects of phenylephrine (Neo-Synephrine).

Overdosage of phenylephrine (Neo-Synephrine) will result in hypertension.

Dark and tarry stools are not related to phenylephrine (Neo-Synephrine).

Burning at the injection site would indicate possible extravasation, not overdose.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 13-2 Identify the actions, clinical uses, and adverse effects of adrenergic agonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

A male client wants to stop taking prazosin (Minipress). Which question should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Are you experiencing impotence?"

"Are you experiencing nasal congestion?"

"Do you feel tired?"

"Do you feel nervousness?"

"Do you feel like your heart rate slows down?"

Answer: 1, 2, 3

Explanation:

Some alpha blockers result in impotence or inhibition of ejaculation.

Nasal congestion is a common adverse effect of alpha blockade.

Drowsiness may occur with alpha blockers.

Anxiety is not a common adverse effect of this drug.

Reflex tachycardia may occur, but bradycardia is not expected.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 13-3 Identify the actions, clinical uses, and adverse effects of adrenergic antagonists.

MNL Learning Outcome: Examine adrenergic drugs that affect the autonomic nervous system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 14 Drugs for Anxiety and Sleep Disorders**

A client reports being worried about everything all day and feeling confused and restless. Which condition should the nurse suspect the client is experiencing?

Generalized anxiety

Social anxiety

Posttraumatic stress disorder

Panic disorder

Answer: 1

Explanation:

Generalized anxiety disorder is characterized by excessive anxiety but not to panic levels. Other symptoms include restlessness, muscle tension, and loss of focus and ability to concentrate.

Relaxation techniques are effective in reducing anxiety.

Social anxiety disorder is characterized by "performance anxiety" (i.e., extreme fear when a client is in a social situation); there is no information to support that this is what the client is experiencing. Also, telling the client to "calm down" is nontherapeutic.

Posttraumatic stress disorder is situational anxiety that develops in response to reexperiencing a previous traumatic life event; there is no information that the client has experienced a trauma.

Panic disorder is characterized by intense feelings of apprehension, terror, and impending doom and increased autonomic nervous system anxiety; the client does not have these symptoms.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-1 Compare and contrast the major types of anxiety disorders.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse instructs a group of clients with anxiety disorders. Which statement made by a client indicates an understanding of the education?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Relaxation techniques will often decrease anxiety."

"Antianxiety medicine should be used until anxiety is gone."

"Antianxiety medicine should not be used indefinitely."

"Therapy may help identify where this anxiety comes from."

"Different medications are required for treating anxiety than for treating difficulty sleeping."

Answer: 1, 3, 4

Explanation:

Nonpharmacological techniques such as relaxation techniques are effective in reducing some levels of anxiety.

Absence of anxiety is an unrealistic goal because all individuals will have some level of anxiety during their lifetime.

For most patients, antianxiety medication is intended for short-term use.

Clients with anxiety disorders should be encouraged to uncover the cause of the anxiety through cognitive-behavioral therapy or other counseling techniques.

Often, the same medication can be used for anxiety as well as insomnia.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 14-3 Identify some nonpharmacologic therapies used to cope with insomnia and anxiety.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client asks which part of the brain controls anxiety and insomnia. Which response should the nurse provide?

"The limbic system and reticular activating system control anxiety and insomnia."

"The frontal lobes and limbic system control anxiety and insomnia."

"The thalamus and reticular activating system control anxiety and insomnia."

"The limbic system and hypothalamus control anxiety and insomnia."

Answer: 1

Explanation:

Neural systems associated with anxiety and restlessness include the limbic system and the reticular activating system. The reticular activating system is responsible for sleeping and wakefulness and performs an alerting function for the entire cerebral cortex.

The frontal lobes are not responsible for anxiety and sleep.

The thalamus is not responsible for anxiety and sleep.

The hypothalamus is not responsible for anxiety and sleep.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist with other disciplines. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-2 Identify the regions of the brain associated with anxiety, sleep, and wakefulness.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client asks why different types of medications for anxiety and insomnia are prescribed. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"You will be taking medications known as sedative-hypnotics."

"You will be taking medications known as antidepressants."

"You will be taking a medication known as paraldehyde."

"You will be taking medications known as barbiturates."

"You will be taking medications known as benzodiazepines."

Answer: 1, 2, 5

Explanation:

The three categories of medications used to treat anxiety and sleep disorders include the sedative-hypnotics.

The three categories of medications used to treat anxiety and sleep disorders include the antidepressants.

Paraldehyde is not identified as a medication to treat anxiety or insomnia.

Barbiturates are no longer used for anxiety or insomnia because of significant side effects and the availability of more effective medications.

The three categories of medications used to treat anxiety and sleep disorders include the benzodiazepines.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-4 Define general terms used to describe medications used to treat anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client with a generalized anxiety disorder asks if medication will be prescribed for treatment. Which response should the nurse make?

"A prescription is a common treatment for clients with anxiety disorders."

"A prescription is necessary initially, followed by therapy."

"You most likely will not require a prescription."

"A prescription is necessary when anxiety interferes with your quality of life."

Answer: 4

Explanation:

A prescription is not necessarily a common treatment for anxiety disorders. Many anxiety disorders can be managed without a prescription.

A prescription combined with therapy is considered the best approach for treatment of anxiety disorders.

The nurse does not have enough information to tell the client that a prescription will probably not be necessary.

It is more beneficial to the client to identify and treat the cause of anxiety than to use a prescription. When anxiety becomes severe enough to significantly interfere with the client's quality of life, pharmacotherapy is indicated.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client has taken different prescriptions over the past 2 years that have been unsuccessful in treating insomnia. Which condition should the nurse suspect the client may be experiencing?

Sleep apnea

Anxiety disorder

Addiction

Personality disorder

Answer: 1

Explanation:

Sleep apnea is a medical condition that must be treated to relieve the insomnia associated with the disorder. Medications such as benzodiazepines depress respiratory drive and exacerbate sleep apnea.

There is no information that suggests the client has an anxiety disorder.

There is no information that suggests the client may have an addiction.

There is no information that suggests the client might have a personality disorder.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client asks how the body knows that sleep is needed. Which response should the nurse make?

"It depends on the balance of nutrients in the body."

"The body organs signal the brain that rest is needed."

"There is no information to explain what you are asking."

"The reticular activating system in the brain regulates sleep and wakefulness."

Answer: 4

Explanation:

Sleep and wakefulness are not dependent upon the balance of nutrients in the body.

Sleep and wakefulness are not dependent on the body organs signaling the brain that rest is needed.

There is information to explain sleep and wakefulness.

The reticular activating system in the brain regulates sleep and wakefulness through communication via the locus coeruleus fibers.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-2 Identify the regions of the brain associated with anxiety, sleep, and wakefulness.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client taking lorazepam (Ativan) for 2 years reports stopping the medication 3 days ago. Which assessment finding should the nurse anticipate?

Increased heart rate, fever, and muscle cramps

Nothing different; it is safe to abruptly stop lorazepam (Ativan)

Pinpoint pupils, constipation, and urinary retention

A sense of calmness and lack of anxiety

Answer: 1

Explanation:

Many central nervous system (CNS) depressants can cause physical and psychological dependence. The withdrawal symptoms for some CNS depressants can include fever, seizures, increased pulse, anorexia, muscle cramps, and disorientation.

It is not safe to abruptly stop lorazepam (Ativan); withdrawal symptoms will occur.

Pinpoint pupils, constipation, and urinary retention are signs of opioid use.

The client would be anxious, not calm, during benzodiazepine withdrawal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client overdoses on lorazepam (Ativan). Which prescription should the nurse prepare to administer?

Pralidoxime (Protopam)

Naloxone (Narcan)

Flumazenil (Romazicon)

Nalmefene (Revex)

Answer: 3

Explanation:

Pralidoxime (Protopam) is indicated for treatment of organophosphate poisoning.

Naloxone (Narcan) is indicated for treatment of opiate overdose.

Should an overdose of benzodiazepines occur, flumazenil (Romazicon) is a specific benzodiazepine receptor antagonist that can be administered to reverse central nervous system (CNS) depression.

Nalmefene (Revex) is indicated for treatment of opiate overdose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse reviews the medications prescribed for a group of clients. Which client should the nurse be most concerned with taking benzodiazepines?

An 87-year-old client who uses a cane for ambulation

A 9-year-old child with panic attacks

A 42-year-old businessman who travels internationally

A 32-year-old mother of two preschool children

Answer: 1

Explanation:

Benzodiazepines should be used with caution in older adults due to their adverse effects of drowsiness and sedation. This puts older adults at risk for falls.

Benzodiazepines must be used with caution in children, but these clients are not as high risk as older adults.

There is minimal concern with benzodiazepine use in a 42-year-old client.

There is minimal concern with benzodiazepine use in a 32-year-old client.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse has completed the education for a client prescribed buspirone (BuSpar). Which statement made by the client indicates further teaching is required?

"The side effects I might experience include dizziness, headache, and drowsiness."

"I can take this prescription when I feel anxious and it will relax me."

"This prescription should be taken on a regular basis for it to help me."

"I don't need to worry about becoming dependent on this prescription."

Answer: 2

Explanation:

Side effects of buspirone (BuSpar) include dizziness, headache, and drowsiness.

Buspirone (BuSpar) works by altering levels of neurotransmitters and takes a few weeks to achieve optimal anxiety reduction. It cannot be used as an "as needed" (prn) medication.

Buspirone (BuSpar) works by altering levels of neurotransmitters and takes a few weeks to achieve optimal anxiety reduction. The drug must be taken consistently for this to occur.

Dependence and withdrawal are less of a concern with buspirone (BuSpar) than with some other antianxiety drugs.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 14-7 Explain the pharmacologic management of anxiety and insomnia with nonbenzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client is prescribed zolpidem (Ambien) for treatment of short-term insomnia. Which safety concern should the nurse make a priority?

Dizziness and daytime sedation

Nausea

Diarrhea

Sleepwalking

Answer: 4

Explanation:

Dizziness and daytime sedation are common side effects of zolpidem (Ambien) and usually subside after a few days on the medication.

Nausea is a common side effect of zolpidem (Ambien) and usually subsides after a few days on the medication.

Diarrhea is a common side effect of zolpidem (Ambien) and usually subsides after a few days on the medication.

While sleepwalking, a client may leave the home, leading to self-injury.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 14-7 Explain the pharmacologic management of anxiety and insomnia with nonbenzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client experiencing nervousness asks why escitalopram (Lexapro) was prescribed. Which response should the nurse provide the client?

"The same brain chemicals are involved with anxiety and depression."

"You are really depressed; it is just manifested as anxiety. These medications are safer than benzodiazepines."

"Your healthcare provider thinks that this is the best treatment for your anxiety, and these medications are safer than benzodiazepines."

"The two disorders are similar and, if you treat depression, the anxiety goes away."

Answer: 1

Explanation:

Antidepressants are frequently used to treat symptoms of anxiety. They reduce anxiety by altering levels of norepinephrine and serotonin. These neurotransmitters are also associated with depression.

The client is being treated for generalized anxiety; this is different from depression.

Telling the client that the healthcare provider knows best is a condescending reply and does not answer the patient's question.

Depression and anxiety are two separate disorders.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-6 Explain the pharmacologic management of anxiety and insomnia with antidepressants.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client with symptoms of hyperthermia and diaphoresis reports taking escitalopram (Lexapro), St. John's wort, levothyroxine, and acetaminophen. Which condition should the nurse suspect in this client?

Serotonin syndrome

A virus

Withdrawal

Thyroid toxicosis

Answer: 1

Explanation:

The use of St. John's wort combined with escitalopram places the client at risk for serotonin syndrome. Symptoms of serotonin syndrome include hyperthermia and diaphoresis.

There is no indication the client has a virus.

Escitalopram, St. John's wort, levothyroxine, or acetaminophen are not associated with withdrawal symptoms.

The primary cause of thyroid toxicosis is an overactive thyroid gland. The client is prescribed levothyroxine to replace thyroid hormone due to an underactive thyroid gland.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-6 Explain the pharmacologic management of anxiety and insomnia with antidepressants.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse instructs a client prescribed clonazepam (Klonopin). Which outcome should indicate to the nurse that teaching was effective?

States the signs of developing Stevens-Johnson rash.

Explains the importance of dietary restrictions related to this drug.

Plans to have routine laboratory work.

Describes the consequences of abruptly stopping the drug.

Answer: 4

Explanation:

Stevens-Johnson rash is not a side effect of benzodiazepines.

There are no diet restrictions with the use of benzodiazepines.

Routine bloodwork is not required with the use of benzodiazepines.

Abrupt discontinuation of benzodiazepines like clonazepam (Klonopin) can result in serious withdrawal symptoms.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client reports difficulty sleeping because of studying for final exams. Which condition should the nurse suspect the client is experiencing?

Situational anxiety

Social anxiety

Obsessive—compulsive disorder

Performance anxiety

Answer: 1

Explanation:

The final examination is a temporary event that is the cause of the anxiety. Once the examination is over, it is likely that the situational anxiety will end.

Social anxiety is a fear of crowds.

Obsessive—compulsive disorder involves recurrent, intrusive thoughts or repetitive behaviors that interfere with normal activities or relationships.

Although the situation presented required the client to perform on the exam, it is best defined as situational anxiety.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-1 Compare and contrast the major types of anxiety disorders.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client reports experiencing a high amount of stress. Which primary approach should the nurse recommend to the client?

A combined approach using a prescription and nonpharmacological strategies

The use of an anxiolytic

The practice of meditation

Determine the cause of the anxiety

Answer: 4

Explanation:

A combined approach using a prescription and nonpharmacological strategies is not a primary approach to managing stress.

The use of medications alone is not a primary approach.

Meditation may or may not be useful for specific individuals.

Stress is generally a symptom of an underlying disorder. It is more productive to uncover and address the cause than to treat the symptoms.

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Cognitive Level: Understanding

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Planning

Learning Outcome: 14-3 Identify some nonpharmacologic therapies used to cope with insomnia and anxiety.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse is caring for a client experiencing insomnia. Which area of the brain should the nurse recall is primarily responsible for maintaining sleep and wakefulness?

Reticular activating system

Cerebral cortex

Limbic system

Cerebellum

Answer: 1

Explanation:

The reticular activating system is responsible for sleeping and wakefulness.

The primary functions of the cerebral cortex do not include sleep and wakefulness.

The limbic system is responsible for emotional expression, learning, and memory.

The primary functions of the cerebellum do not include sleep and wakefulness.

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Cognitive Level: Remembering

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 14-2 Identify the regions of the brain associated with anxiety, sleep, and wakefulness.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse is caring for a client with anxiety. Which drug category should the nurse anticipate being prescribed for this client?

Antitussives

Anticoagulants

Seizure drugs

Antibiotics

Answer: 3

Explanation:

Antitussives are used as cough suppressants.

Anticoagulants are used to prevent blood clots from forming.

In addition to antidepressants, several other drug classes are used to treat anxiety, including seizure drugs.

Antibiotics are used primarily for bacterial infections.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client with anxiety and insomnia asks about the benefits of treatment with a benzodiazepine. Which response should the nurse make?

"Benzodiazepines are the most effective."

"Benzodiazepines have the lowest risk of dependency and tolerance."

"Benzodiazepines are most likely to be covered under insurance premiums."

"Benzodiazepines are most affordable."

Answer: 2

Explanation:

Benzodiazepines are not necessarily more effective than other drugs.

Benzodiazepines have a lower risk of dependency and tolerance than do other drugs used for anxiety and insomnia (such as the barbiturates).

Benzodiazepines are not necessarily more likely to be covered under insurance premiums.

Although economics is an important factor in pharmacology, drug safety should be considered.

Benzodiazepines are not necessarily more affordable. Although economics is an important factor in pharmacology, drug safety should be considered.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 14-5 Explain the pharmacologic management of anxiety and insomnia with benzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse is preparing teaching for a client prescribed a selective serotonin reuptake inhibitors. Which adverse effects should the nurse include in the teaching?

Drowsiness and coma

Weight gain and sexual dysfunction

Headache and nausea

Dry mouth and urine retention

Answer: 2

Explanation:

Drowsiness or coma is not a common adverse effect.

Weight gain and sexual dysfunction are common adverse effects and may result in poor medication adherence.

Headache is not a common adverse effect.

Although anticholinergic effects such as dry mouth and urine retention could occur, they are not as common as another set of adverse effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 14-6 Explain the pharmacologic management of anxiety and insomnia with antidepressants.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client is prescribed ramelteon. Which information should the nurse include when teaching about this medication?

Daytime drowsiness is common.

There is an increased risk of physical dependence.

There is a relatively short onset of action.

The primary action is to induce a deep sleep state.

Answer: 3

Explanation:

Ramelteon has less of a residual of daytime drowsiness.

Ramelteon does not result in physical dependence.

Ramelteon has a relatively short onset of action.

Ramelteon is a melatonin receptor agonist that has been shown to mainly improve sleep induction.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse notes that a client is prescribed zolpidem (Ambien) for insomnia. Which information should the nurse recall about this medication?

Clients using Ambien should avoid foods that contain tyramine.

Ambien will take longer to produce an effect when taken with food.

Ambien is contraindicated during pregnancy but can be taken by breastfeeding mothers.

Ambien is classified as a benzodiazepine.

Answer: 2

Explanation:

Clients using monoamine oxidase inhibitors (MAOIs) (not Ambien) should avoid foods high in tyramine.

The absorption of Ambien is slowed when taken with food.

It is classified as Pregnancy Category B and should be avoided by breastfeeding mothers.

Patients using MAOIs (not Ambien) should avoid foods high in tyramine.

It is classified as a nonbenzodiazepine central nervous system depressant.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 14-7 Explain the pharmacologic management of anxiety and insomnia with nonbenzodiazepines.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

The nurse is caring for a client with anxiety and insomnia. Which explanation best explains why barbiturates would be avoided for these conditions?

They have a greater associated cost.

They have a high risk of producing an allergic response.

They are seldom effective.

They produce many serious adverse effects.

Answer: 4

Explanation:

Barbiturates are not necessarily more expensive.

Allergic reactions can occur but are rare and are not a primary reason they are no longer used for anxiety and/or insomnia.

Barbiturates can be effective.

Barbiturates were the drug of choice for anxiety and insomnia prior to the discovery of safer drug alternatives.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 14-8 Describe the indications and adverse effects of barbiturates.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client is seeking medical care for anxiety. For which reason should the nurse obtain a thorough history from this client?

Pharmacotherapy can be prescribed.

The type of counseling can be prescribed based on the history.

The category of anxiety disorder can be identified.

The treatment plan can be created.

Answer: 1

Explanation:

Pharmacotherapy can be prescribed by the healthcare provider based on the history of the client.

The type of counseling a client may require is not prescribed based on a health history.

A health history is not used to determine the category of anxiety disorder.

A treatment plan is not created based on a health history.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client is diagnosed with posttraumatic stress disorder (PTSD). Which finding should the nurse anticipate when assessing the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Tachycardia

Panic attacks

Inability to focus

Fear of exposure to germs

Hallucinations

Answer: 1, 2, 3, 5

Explanation:

PTSD is a type of extreme situational anxiety. Tachycardia is a symptom of anxiety.

PTSD is a type of extreme situational anxiety. Extreme nervousness or panic attacks are symptoms of anxiety.

PTSD is a type of extreme situational anxiety. Symptoms of anxiety include inability to focus.

A fear of exposure to germs is typical of obsessive—compulsive disorder.

In PTSD, the person reexperiences traumatic events, which can take the form of nightmares, hallucinations, or flashbacks.

Page Ref: 156

Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 14-1 Compare and contrast the major types of anxiety disorders.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client in the intensive care unit for a week is physiologically stable but is irritable and paranoid and complains of vivid dreams when dozing off to sleep. Which action should the nurse take?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Check the client's oxygen status.

Request a prescription for a sleep hypnotic.

Assess the client's vital signs.

Turn down the lights at night and reduce noise to a minimum.

Schedule all tests and procedures during the day.

Answer: 2, 4, 5

Explanation:

The client is physiologically stable.

Since it is important for the patient to get rest, an order for sleep medication would be appropriate.

It is not necessary to assess the patient's vital signs, since the patient is physiologically stable.

Turning down the lights and reducing noise will help support sleep.

Scheduling tests and procedures so as not to disturb the client's sleep is indicated.

Page Ref: 159

Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client is having difficulty sleeping. Which nonpharmacological intervention should the nurse recommend to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Make certain your bedroom is nice and warm."

"There are alternative methods to treat insomnia, such as yoga, meditation, and massage therapy."

"Eating a large meal at bedtime will help induce sleep."

"Avoid caffeinated beverages, nicotine, and alcohol immediately prior to bedtime."

"Play your favorite type of music when you go to sleep."

Answer: 2, 4

Explanation:

Sleep disturbances may be related to sleeping in a room that is too warm.

Acupuncture, aromatherapy, yoga, prayer, massage, meditation, biofeedback therapy, hypnosis, guided imagery, and music therapy are alternative treatments for anxiety and insomnia.

Eating a large meal prior to bedtime is a secondary cause of insomnia.

Amphetamines, cocaine, caffeinated beverages, corticosteroids, sympathomimetics, antidepressants, alcohol use, nicotine, and tobacco use are secondary causes of insomnia.

Music may contribute to environmental stimuli.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 14-3 Identify some nonpharmacologic therapies used to cope with insomnia and anxiety.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client asks if there are any over-the-counter herbs or nonprescription medications that can be used to improve insomnia. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Ginger root is commonly taken to improve sleep."

"Ginkgo is an herb commonly taken to improve sleep."

"Diphenhydramine (Benadryl) and doxylamine are over-the-counter meds sometimes taken to produce drowsiness."

"Valerian and melatonin are herbs commonly taken to improve sleep."

"Kava is an herb taken to improve sleep."

Answer: 3, 4

Explanation:

Ginger root is not used to improve sleep.

Ginkgo is not used to improve sleep.

Diphenhydramine (Benadryl) and doxylamine are two antihistamines frequently used to produce drowsiness.

An herbal product with demonstrated efficacy in promoting relaxation is valerian root.

Supplemental melatonin at bedtime is alleged to decrease the time required to fall asleep and to produce a deep and restful sleep.

High doses of kava can damage the liver and should not be used unless recommended by a healthcare provider.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 14-3 Identify some nonpharmacologic therapies used to cope with insomnia and anxiety.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

A client asks which prescriptions are commonly used to treat insomnia. Which pharmacological agent should the nurse discuss with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Diphenhydramine (Benadryl)

Valerian root

Ramelteon (Rozerem)

Flurazepam (Dalmane)

Zolpidem (Ambien)

Answer: 3, 4, 5

Explanation:

Diphenhydramine can be obtained over the counter and does not need a prescription to obtain. It does promote sleep.

Valerian is an herbal product that does not need a prescription to obtain. It does promote sleep. Rozerem is a newer, nonbenzodiazepine hypnotic approved to treat chronic insomnia in people who have problems falling asleep.

Benzodiazepines are drugs of choice for generalized anxiety disorder and the short-term therapy of insomnia.

Ambien is a sedative-hypnotic approved for short-term treatment of insomnia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 14-10 Use the nursing process to care for patients receiving pharmacotherapy for anxiety and insomnia.

MNL Learning Outcome: Examine drugs used for anxiety and sleep disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 15 Drugs for Mood and Behavioral Disorders**

A client asks the nurse to explain bipolar disorder. Which response should the nurse provide?

"Bipolar disorder is just another type of depression, except the depression occurs in cycles."

"Bipolar disorder is a type of depression that includes attention-deficit disorder symptoms."

"Bipolar disorder just means that the mood alternates with the seasons and becomes worse in the winter."

"Bipolar disorder means you have cycles of depression as well as hyperactivity, or mania."

Answer: 4

Explanation:

Bipolar disorder must include either mania or hypomania, not just depression.

Bipolar disorder must include depression with either mania or hypomania, not attention-deficit/hyperactivity disorder.

A mood change that becomes worse in the winter is called seasonal affective disorder.

Clients with bipolar disorder may shift from emotions of extreme depression to extreme rage and agitation. Mania may include grandiosity, decreased need for sleep, pressured speech, racing

thoughts, buying sprees, and sexual indiscretions.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-8 Identify the signs and symptoms of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A parent reports their child is easily distracted in school, cannot complete assignments on time, and interrupts other children while they are speaking. Which response should the nurse make to the parent?

"This sounds like your child is depressed; depression looks different in children and is very serious."

"This sounds like bipolar disorder; you might want to have your child tested by a child psychiatrist."

"This could be attention-deficit/hyperactivity disorder; you might want to have your child tested."

"This sounds like typical 7-year-old behaviors to me; if they do not resolve, have your child tested."

Answer: 3

Explanation:

The characteristics of depression are different in children, but the symptoms described by the parent are not symptoms of depression.

Easy distraction, inability to complete assignments, and interrupting other children are not symptoms of bipolar disorder.

Symptoms of attention-deficit/hyperactivity disorder include difficulty paying attention and focusing on tasks, hyperactivity, distractibility, impulsivity, and talking excessively.

Easy distraction, inability to complete assignments, and interrupting other children are not common behaviors of a 7-year-old child.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-10 Identify the signs and symptoms of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse instructs a client with depression about the condition. Which statement should indicate to the nurse that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Depression has many causes, which include brain-based disorders."

"Depression is very common in older adults."

"We really don't know what causes depression."

"Depression results from unresolved conflicts in your childhood."

"Depression results from parental neglect."

Answer: 1, 2

Explanation:

Depression has many causes, which include brain-based disorders.

Depression is the most common mental health disorder of older adults.

Depression has been studied extensively.

Environmental influences are only one of the causes of depression; this answer does not include the biological basis for depression.

Depression could result from cold and distant parents, but this answer does not include the biological basis for depression.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 15-1 Compare and contrast signs and symptoms of the different types of depression.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is suspected of overdosing on imipramine (Tofranil). Which assessment should the nurse make a priority?

Cardiac function

Liver function

Renal function

Neurological function

Answer: 1

Explanation:

Tricyclic antidepressants are cardiotoxic. An overdose could result in a fatal dysrhythmia.

Cardiac status is the primary assessment.

Liver function is not the priority assessment.

Renal function is not the priority assessment.

The neurologic function may be affected but is not the primary assessment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-6 Describe the treatment of depression with tricyclic antidepressants.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client taking amitriptyline (Elavil) for 2 weeks says the medication is not working. Which response should the nurse make?

"The prescription can take several weeks to have an effect."

"You might still feel depressed, but you are looking much better."

"This may not be the best prescription for you; I will notify your healthcare provider."

"You may need additional pharmacotherapy."

Answer: 1

Explanation:

The therapeutic effects of tricyclic antidepressants may take 2 to 6 weeks to occur.

Telling a depressed client they look better does not address the client's feelings or provide the appropriate information.

It is not appropriate for the nurse to notify the healthcare provider at this time.

It is not appropriate to suggest additional pharmacotherapy; the therapeutic effects may take 2 to 6 weeks to occur.

Page Ref: 177

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-6 Describe the treatment of depression with tricyclic antidepressants.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client prescribed sertraline (Zoloft) reports a problem with delayed ejaculation. Which response should the nurse make to the client?

"I will let your healthcare provider know and most likely your prescription will be changed."

"This is a side effect of the prescription, but treating your depression is the priority."

"I am concerned that you may become suicidal if you stop the prescription."

"Continue to take the prescription, as this usually goes away after a few months."

Answer: 1

Explanation:

One of the most common side effects of the selective serotonin reuptake inhibitors relates to sexual dysfunction; up to 70% of men and women can experience this. In men, delayed ejaculation and impotence may occur.

It is inappropriate to tell a client that depression is a higher priority; sexual functioning is important to clients.

The client could become suicidal if the medication is stopped, but this response does not address the client's immediate concern.

Sexual dysfunction does not usually subside after a few months of taking the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-4 Describe the treatment of depression with selective serotonin reuptake inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is to be prescribed an antidepressant. Which question should the nurse prioritize when completing the initial assessment?

"How much alcohol do you consume during the week?"

"Are you allergic to any medications?"

"How long have you been depressed?"

"Have you had any thoughts about killing yourself?"

Answer: 4

Explanation:

Assessing for alcohol intake is important but is not the priority safety issue.

Asking about allergies is an important safety question, but there are very few allergies to antidepressant medication. This is not the priority question.

The length of the client's depression is important but is not a safety issue.

The nurse should always assess for suicidal ideation in any depressed client who is about to begin antidepressant treatment. The medication takes several weeks before the full benefit is obtained.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-12 Use the nursing process to care for patients receiving pharmacotherapy for mood and behavioral disorders.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse instructs a client about phenelzine (Nardil). Which statement should indicate to the nurse that client teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"I am really going to miss my morning coffee and sweet roll."

"I'll have to give up beer at the football games."

"I can't eat fried chicken and gravy."

"I am not supposed to have processed meats or cheese."

"I really shouldn't eat at a restaurant; too many foods are on my restricted list."

Answer: 2, 4

Explanation:

Coffee and a sweet roll are not high in tyramine and are considered safe.

Beer is high in tyramine. Combining tyramine-rich foods with a monoamine oxidase inhibitor can result in a hypertensive crisis.

Fried chicken and gravy are not high in tyramine and are considered safe.

Processed meats and cheese are high in tyramine. Combining tyramine-rich foods with a monoamine oxidase inhibitor can result in a hypertensive crisis.

There are many foods that are safe to eat; the client can safely eat at a restaurant.

Page Ref: 179

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 15-7 Describe the treatment of depression with monoamine oxidase inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client taking lithium (Eskalith) has a blood level of 0.4 mEq/L. Which assessment finding should the nurse anticipate?

Return to baseline behavior

Hyperactivity

Signs and symptoms of depression

Decrease in manic behavior

Answer: 2

Explanation:

The client will not return to baseline behavior but will continue in the manic phase until the lithium level is within a therapeutic range.

A therapeutic lithium level is 0.6 to 1.5. Since this client's level is low, behaviors will indicate mania (i.e., hyperactivity).

The client will not exhibit signs and symptoms of depression but will continue in the manic phase until the lithium level is within a therapeutic range.

There will be no decrease in manic behavior because the lithium level is not within range.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-9 Describe the pharmacologic treatment of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is preparing teaching for a client prescribed lithium (Eskalith). Which outcome should the nurse plan for this client?

The client will be able to work a normal work schedule and will receive adequate sleep.

The client will identify signs of lithium toxicity and verbalize measures to avoid it.

The client will engage in activities of daily living and report enjoyment with them.

The client will report stabilization of mood, including absence of mania or depression.

Answer: 2

Explanation:

Working a normal work schedule and receiving adequate sleep are important but are not the priority outcome.

Lithium has a narrow therapeutic range. In order to avoid toxicity, clients must understand the signs of toxicity and measures to avoid it.

Engaging in activities of life and enjoying them are important but are not the priority outcome.

Stabilization of mood is important but is not the priority outcome.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 15-9 Describe the pharmacologic treatment of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client prescribed lithium (Eskalith) asks why salt should be consumed. Which response should the nurse make to the client?

"You should use sea salt to avoid lithium toxicity."

"You must use table salt or your kidneys will retain lithium, and you will become toxic."

"The amount of salt is not important; just increase your table salt if you notice signs of lithium toxicity."

"Salt is very important to avoid lithium toxicity, but not as important as drinking 1 to 1.5 L of water per day."

Answer: 2

Explanation:

There is no evidence to support the claim that sea salt is more effective than any other kind of salt.

The kidneys are responsible for maintaining normal sodium levels. If there is sodium depletion, the kidneys will conserve any salt, in this case lithium. This will lead to lithium toxicity.

Increasing the salt intake does not treat lithium toxicity after it has occurred.

Drinking 1 to 1.5 L of water per day is important but is not a substitute for adequate sodium chloride.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-9 Describe the pharmacologic treatment of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A pediatric client is prescribed methylphenidate (Ritalin). Which outcome should the nurse identify when planning this client's care?

The client will avoid altercations with peers.

The client will be able to complete age-appropriate chores at home.

The client will use age-appropriate play with peers.

The client will maintain weight within norms for this age group.

Answer: 3

Explanation:

Avoiding altercations with peers does not address a decrease in attention-deficit/hyperactivity disorder—related behaviors.

Completing age-appropriate chores at home does not address the interaction and play with peers, which is crucial during this developmental stage.

Children with attention-deficit/hyperactivity disorder have difficulty engaging in play with peers due to their distractibility, impulsiveness, and hyperactivity. Methylphenidate (Ritalin) increases their focus and decreases their distractibility, impulsiveness, and hyperactivity.

Age-appropriate play with peers is fundamental to healthy development with school-age children. Maintaining weight does not address interaction and play with peers, which is crucial during this developmental stage.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 15-10 Identify the signs and symptoms of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A parent is concerned because their pediatric client taking methylphenidate (Ritalin) will not eat. Which response should the nurse make to the parent?

"It sounds like your child may be experiencing depression."

"Administer the prescription after meals and encourage snacks between meals."

"Your child may require an appetite stimulant."

"I will get you a consult with a nutritionist."

Answer: 2

Explanation:

There is no evidence supporting that the client has become depressed.

Methylphenidate (Ritalin) is an appetite suppressant. The best approach is to have the client take the medication after meals and consume nutritious snacks between meals.

Other strategies to increase the appetite should be initiated before discussing the use of an appetite stimulant.

A referral to a nutritionist is premature at this time.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-11 Describe the pharmacologic treatment of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client taking sertraline (Zoloft) reports increased moodiness and feeling disconnected from life. Which response should the nurse make to the client?

"Try taking diphenhydramine (Benadryl) to help you relax."

"It is important that you come into the clinic today."

"Do not take the medication until your mood improves."

"Double the prescribed dose of sertraline (Zoloft) today."

Answer: 2

Explanation:

Diphenhydramine (Benadryl) is not used to treat the client's symptoms.

Sertraline (Zoloft) increases the risk of suicidal thinking and behavior. The client should be assessed in the clinic as soon as possible.

It is outside of the scope of practice for the nurse to instruct the client to stop taking their prescription.

It is outside of the scope of practice for the nurse to instruct the client to double the dose of the prescription.

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Cognitive Level: Analyzing

Client Need/Sub: Psychological Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 15-4 Describe the treatment of depression with selective serotonin reuptake inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is caring for a client suspected of having bipolar disorder. Which assessment findings that have occurred over the period of a week support the nurse's suspicion?

Difficulty sleeping, obsession with death, hallucinations

Delusions, unkempt appearance, fatigue

Abnormal eating patterns, feelings of despair, flight of ideas

Increased goal-directed behavior and talkativeness, distractibility

Answer: 3

Explanation:

Difficulty sleeping, obsession with death, and hallucinations are symptoms of depression.

Delusions, unkempt appearance, and fatigue are symptoms of depression.

Bipolar disorder involves periods of mania and depression. Abnormal eating patterns and feelings of despair are symptoms of depression, whereas flight of ideas is a symptom of mania.

Increased goal-directed behavior, talkativeness, and distractibility are symptoms of mania.

Page Ref: 179

Cognitive Level: Remembering

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-8 Identify the signs and symptoms of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is asked to describe attention-deficit/hyperactivity disorder (ADHD). Which response should the nurse make?

ADHD is characterized by periods of mania and periods of depression.

Anxiety and social withdrawal are more frequently seen in girls than in boys.

There is a higher incidence of ADHD in girls than in boys.

ADHD is generally diagnosed later in life.

Answer: 2

Explanation:

Periods of mania and periods of depression are more characteristic with bipolar disorder, not ADHD.

Girls show less aggression but more social withdrawal and anxiety.

ADHD generally occurs in boys more frequently than in girls.

ADHD is generally diagnosed in childhood.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-10 Identify the signs and symptoms of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client reports feeling depressed during the winter. Which type of depression should the nurse suspect the client is experiencing?

Baby blues

Bipolar disorder

Seasonal affective disorder

Obsessive—compulsive disorder

Answer: 3

Explanation:

Baby blues are associated with mothers who have recently had a baby.

Bipolar disorder involves periods of mania and periods of depression.

Seasonal affective disorder is frequently experienced during the winter months.

Obsessive—compulsive disorder involves doing certain tasks repetitively.

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Cognitive Level: Remembering

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-1 Compare and contrast signs and symptoms of the different types of depression.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is reviewing medications to treat depression. Which classification of drugs works by preventing enzymatic destruction of the neurotransmitter norepinephrine?

Serotonin-norepinephrine reuptake inhibitors (SNRIs)

Selective serotonin reuptake inhibitors (SSRIs)

Tricyclic antidepressants (TCAs)

Monoamine oxidase inhibitors (MAOIs)

Answer: 4

Explanation:

SNRIs inhibit the reabsorption of serotonin and norepinephrine and elevate mood.

SSRIs slow the reuptake of serotonin.

TCAs inhibit neurotransmitter reuptake.

MAOIs limit the breakdown of norepinephrine by inhibiting the enzyme monoamine oxidase.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-7 Describe the treatment of depression with monoamine oxidase inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is caring for a client newly diagnosed with depression. Which drug classification should the nurse recall that is often used as a first-line treatment for depression due to the safety profile?

Monoamine oxidase inhibitors (MAOIs)

Beta-adrenergic blockers

Tricyclic antidepressants (TCAs)

Selective serotonin reuptake inhibitors (SSRIs)

Answer: 4

Explanation:

MAOIs have a low safety margin.

Currently beta blockers are more commonly used for treatment of hypertension.

TCAs have some unpleasant and serious side effects.

SSRIs are the most favorable due to their safety profile.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-4 Describe the treatment of depression with selective serotonin reuptake inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is prescribed a monoamine oxidase inhibitor (MAOI). Which food items should the nurse instruct the client to avoid?

Orange juice, cottage cheese, and turkey

Spring water, ice cream, and salmon

Chocolate, wine, and fava beans

Spinach, rice, and venison

Answer: 3

Explanation:

Orange juice, cottage cheese, and turkey are not contraindicated.

Spring water, ice cream, and salmon are not contraindicated.

Chocolate, wine, and fava beans are high in tyramine, which can cause severe hypertension in clients taking MAOIs.

Spinach, rice, and venison are not contraindicated.

Page Ref: 178

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 15-7 Describe the treatment of depression with monoamine oxidase inhibitors.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A pediatric client is diagnosed with attention-deficit/hyperactivity disorder (ADHD). Which medication should the nurse anticipate being prescribed for this client?

Central nervous system (CNS) depressants

Parasympathomimetics

CNS stimulants

Sympathomimetics

Answer: 3

Explanation:

CNS depressants are not traditionally the drug of choice for treating ADHD.

Parasympathomimetics are not traditionally the drug of choice for treating ADHD.

CNS stimulants have traditionally been the drug of choice for treating ADHD.

Sympathomimetics are not traditionally the drug of choice for treating ADHD.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 15-11 Describe the pharmacologic treatment of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is instructing the parents of a client with attention-deficit/hyperactivity disorder. Which information should the nurse provide to the parent about the action of prescribed medication?

Neurotransmitters are blocked, limiting the effects they can produce within the parasympathetic nervous system.

Activation of certain areas of the brain causes increased attention and ability to focus.

Neurotransmitter levels are reduced, which produces a calming effect within the central nervous system.

Certain areas of the brain are deactivated, resulting in a calming effect.

Answer: 2

Explanation:

Neurotransmitters such as epinephrine and serotonin are released, not blocked.

CNS stimulants activate the reticular activating system, causing higher levels of attention and ability to focus.

Neurotransmitters such as epinephrine and serotonin are released, not reduced.

Areas of the brain are not deactivated.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 15-11 Describe the pharmacologic treatment of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is experiencing periods of mania and depression. Which medication should the nurse expect to be prescribed for this client?

Atomoxetine (Strattera)

Amitriptyline (Elavil)

Methylphenidate (Ritalin)

Carbamazepine (Tegretol)

Answer: 4

Explanation:

Atomoxetine is indicated for attention-deficit/hyperactivity disorder (ADHD).

Amitriptyline is indicated for depression.

Methylphenidate is indicated for ADHD.

Antiseizure drugs such as carbamazepine (Tegretol) are often used in the treatment of bipolar disorder.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 15-9 Describe the pharmacologic treatment of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is demonstrating signs of a mental health condition. Which symptom should the nurse associate with mania?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Decreased sleep

Weight loss

Sluggish activity

Muscle pain

Increased talkativeness

Answer: 1, 2, 5

Explanation:

Decreased need for sleep is a symptom of the manic phase of bipolar disorder.

Decreased need for food is a symptom of the manic phase of bipolar disorder.

Sluggish activity is not a symptom of the manic phase of bipolar disorder.

Complaints of muscle pain are not a symptom of the manic phase of bipolar disorder.

Increased talkativeness is a symptom of the manic phase of bipolar disorder.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 15-8 Identify the signs and symptoms of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client asks what causes bipolar disorder. Which neurotransmitter should the nurse include when discussing the manic phase of the disorder?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Excessive glutamate

Excessive norepinephrine

Deficiency of gamma-aminobutyric acid

Deficiency of dopamine

Excessive serotonin

Answer: 1, 2, 3

Explanation:

Mania may involve an excess of excitatory neurotransmitters such as glutamate.

Mania may involve an excess of excitatory neurotransmitters such as norepinephrine.

Mania may involve a deficiency of inhibitory neurotransmitters such as gamma-aminobutyric acid.

Dopamine is not associated with the manic phase of bipolar disorder.

Serotonin is not associated with the manic phase of bipolar disorder.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-8 Identify the signs and symptoms of bipolar disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is preparing to assess an older adult for depression. Which question should the nurse include in the assessment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"How often do you go out to socialize with friends?"

"Can you tell me about your self-care activities?"

"How much alcohol do you consume every day?"

"How is living with your extended family working out for you?"

"Are you feeling depressed?"

Answer: 1, 2, 3, 4

Explanation:

Asking about socialization is an assessment for social isolation, which can indicate the client is experiencing depression or is at risk for depression.

Depression may result in lack of interest in personal appearance and self-care activities.

An older adult may overuse alcohol or combine it with other prescriptions, which can further result in depression.

Factors that contribute to depression in the older adult include loss of independence when it becomes necessary to move in with other family members because of health status or finances.

Depression is significantly underdiagnosed among older adults. A contributing factor is the reluctance to admit feeling depressed because it can be seen as a sign of weakness or an inability to care for oneself. Asking clients directly if they feel depressed will not likely elicit the desired information.

Page Ref: 170

Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 15-2 Describe the assessment and nonpharmacologic treatments for depression.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The nurse is caring for a client with depression. Which client statement should the nurse associate with a risk for suicide?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Suicide is always an option."

"I overdosed on aspirin one time."

"The medication is not working and I feel worse now."

"I could use medication for pain and sleep."

"I'm planning to go out to dinner with friends once a week."

Answer: 1, 2, 3, 4

Explanation:

If a client verbalizes committing suicide, this must be taken seriously.

A client who has had a previous suicide attempt is at higher risk for suicide and must be monitored carefully.

Worsening symptoms of depression must be reported immediately because these may indicate that the drug is not working or that the client is not compliant with pharmacotherapy.

All prescription drugs must be monitored because suicidal clients often take overdoses. Therapy with multiple central nervous system depressants is discouraged because these agents produce additive sedation.

This information would not indicate a worsening of depression or the risk for suicide.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 15-2 Describe the assessment and nonpharmacologic treatments for depression.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client asks which therapy is most helpful for depression. Which therapy should the nurse plan to discuss with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Behavioral therapy

Interpersonal therapy

Cognitive-behavioral therapy

Electroconvulsive therapy

Crisis therapy

Answer: 1, 2, 3, 4

Explanation:

Behavioral therapies help clients unlearn the behavioral patterns that contribute to or result from their depression.

Interpersonal therapy focuses on a client's disturbed personal relationships that both cause and exacerbate depression.

Cognitive-behavioral therapies help clients change negative styles of thought and behavior that are often associated with depression.

For clients with serious and life-threatening mood disorders who are unresponsive to other treatment, electroconvulsive therapy may be a useful treatment.

Crisis therapy is not a type of therapy for depression.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 15-2 Describe the assessment and nonpharmacologic treatments for depression.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

A client is prescribed amitriptyline (Elavil). Which information about side effects should the nurse include to enhance adherence to the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Use ice chips to help alleviate dry mouth.

Chew gum or use hard candy to help alleviate dry mouth.

Avoid alcohol-based mouthwash to help alleviate dry mouth.

Use "dry eye" drops to help with eye dryness.

Request the pharmacist to fill the prescription from a different manufacturer.

Answer: 1, 2, 3, 4

Explanation:

Amitriptyline is a tricyclic antidepressant. TCAs have anticholinergic-like side effects. Using ice chips helps to alleviate dry mouth.

Amitriptyline is a tricyclic antidepressant. TCAs have anticholinergic-like side effects. Chewing gum or sucking on hard candy helps to alleviate dry mouth.

Alcohol-based mouthwash can increase the feeling of dry mouth associated with the prescription.

Amitriptyline is a tricyclic antidepressant. TCAs have anticholinergic-like side effects. The use of "dry eye" ocular drops can help alleviate eye dryness.

The client should use the same manufacturer's brand each time the prescription is filled.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 15-6 Describe the treatment of depression with tricyclic antidepressants.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

The parent of a pediatric child taking medication for attention-deficit/hyperactivity disorder (ADHD) asks about a "drug holiday." Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Drug holidays may be used to reduce dependence on medications or to assess symptoms."

"If you feel like the medication is sedating your child too much, you can hold doses for up to 3 or 4 days."

"Drug holidays are used when the dosage will be increased to assess the client's tolerance to the prescription."

"You should not consider using a drug holiday until you have discussed that option with your healthcare provider."

"Drug holidays require careful scheduling."

Answer: 1, 4, 5

Explanation:

Some medications used for treatment of ADHD may result in dependence. Drug holidays are used to reduce risk of dependence and to assess for level of symptoms without medications.

Drug holidays are not initiated by the parent without guidance.

Dosage increases are not associated with a drug holiday.

Drug holidays should be undertaken only after careful consideration and discussion with the healthcare provider.

Drug holidays should be scheduled around times that increased symptoms of ADHD will not interfere with school or other important activities.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 15-11 Describe the pharmacologic treatment of attention-deficit/hyperactivity disorder.

MNL Learning Outcome: Examine drugs used for mood and behavioral disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 16 Drugs for Psychoses**

A client asks the nurse what causes schizophrenia. Which contributing factor should the nurse include in the client teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

Traumatic brain injury

Alcohol use during pregnancy

Stressful environment

Genetic link

Extreme depression

Answer: 1, 4, 5

Explanation:

Sometimes a cause may be attributed to traumatic brain injury.

There is no evidence that links alcohol use during pregnancy to schizophrenia.

A stressful environment will exacerbate the symptoms of schizophrenia but does not cause the illness.

Genetic factors are known to play a role in some psychoses.

Extreme depression is identified as a cause of psychoses.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 16-1 Explain theories for the etiology of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with schizophrenia sits quietly in a chair and minimally responds to the environment. In which way should the nurse interpret the client's behavior?

Depression

Hearing voices

Experiencing positive symptoms

Experiencing negative symptoms

Answer: 4

Explanation:

There is no evidence that the client is depressed.

There is no evidence that the client is hearing voices.

Positive symptoms include hallucinations, delusions, and a disorganized thought or speech pattern.

Negative symptoms are those that subtract from normal behavior. These symptoms include a lack of interest, motivation, responsiveness, or pleasure in daily activities.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-2 Compare and contrast the positive and negative symptoms of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with schizophrenia is prescribed haloperidol (Haldol). Which outcome should the nurse identify as a priority for this client?

Consume adequate fluids and a high-fiber diet

Take the medication as prescribed

Report a decrease in auditory hallucinations

Report symptoms of restlessness

Answer: 2

Explanation:

Adequate fluids and fiber will decrease the side effect of constipation, but this is not the priority outcome.

Medication compliance is a priority for clients with schizophrenia. Relapse of symptoms will occur without the medications.

A decrease in auditory hallucinations is an expected effect of haloperidol (Haldol), but this is not the priority outcome.

The symptom of restlessness is known as akathisia. This is an important finding to report but is not the priority outcome.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with schizophrenia is prescribed a phenothiazine. Which finding should the nurse report to the healthcare provider that indicates the client is experiencing an anticholinergic side effect of the medication?

Acute dystonia

Severe headache

Hypertension

Urinary retention

Answer: 4

Explanation:

Acute dystonia must be reported immediately to the provider, but this is not an anticholinergic side effect.

A headache is not an anticholinergic side effect.

Hypotension, not hypertension, is a cardiac side effect, not an anticholinergic side effect.

Urinary retention is an anticholinergic side effect of conventional antipsychotics. This must be reported immediately to the healthcare provider.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships

between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is taking an antipsychotic. Which findings should indicate to the nurse that the client is experiencing tardive dyskinesia?

- Tremor, muscle rigidity, and a shuffling gait
- Severe muscle spasms of the back, neck, and tongue
- Inability to rest or relax and restlessness
- Unusual facial movements and lip smacking

Answer: 4

Explanation:

Tremor, muscle rigidity, and a shuffling gait are symptoms associated with parkinsonism. Severe muscle spasms of the back, neck, and tongue are symptoms related to acute dystonia. An inability to rest or relax and restlessness are symptoms associated with akathisia. Tardive dyskinesia is characterized by unusual tongue and facial movements, such as lip smacking and wormlike motions of the tongue.

Page Ref: 193

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-4 Explain the indications and adverse effects of the phenothiazine antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client prescribed risperidone (Risperdal) has a temperature of 102°F. Which condition should the nurse suspect is occurring with the client?

- Neuroleptic malignant syndrome
- Acute urinary infection
- Bacterial pneumonia
- Extrapyramidal side effects

Answer: 1

Explanation:

Neuroleptic malignant syndrome includes symptoms of elevated temperature, confusion, muscle rigidity, and high serum creatine kinase.

Antipsychotic medications do not cause urinary infections.

Antipsychotic medications do not cause pneumonia.

An elevated temperature is not an extrapyramidal side effect.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client takes clozapine (Clozaril) for schizophrenia. Which client statement indicates the prescription is effective?

"I will start going to group therapy."

"I think I am ready for discharge, as I feel better."

"I am not hearing the voices anymore."

"I promise not to skip breakfast anymore."

Answer: 3

Explanation:

A client planning to attend group therapy is not an indication that psychotic symptoms are in remission.

A client being prepared for discharge does not indicate the psychotic symptoms are in remission. Therapeutic effects of clozapine (Clozaril) include remission of a range of psychotic symptoms such as delusions, paranoia, auditory hallucinations, and irrational behavior.

A client planning to eat breakfast does not indicate the remission of any psychotic symptoms.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse instructs a client who is prescribed risperidone (Risperdal). Which client statement indicates teaching was effective?

"I must call my healthcare provider if I start to have a lot of nightmares."

"I must have my bloodwork done while taking this medication."

"I must call my healthcare provider if I start to lose a lot of weight."

"I must call my healthcare provider if I notice a metallic taste in my mouth."

Answer: 2

Explanation:

Nightmares are not a side effect of risperidone (Risperdal).

Agranulocytosis can be a life-threatening side effect of risperidone, which may also suppress bone marrow and lower infection-fighting ability. It is very important, therefore, that the client have regular bloodwork evaluated while on this medication.

Weight gain, not weight loss, is a side effect of risperidone.

A metallic taste is not a side effect of risperidone.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse is preparing teaching for a client prescribed risperidone (Risperdal). Which condition should the nurse inform the client to immediately notify the healthcare provider?

Narrowing of the field of vision

Joint pain or swelling

Sore throat or an infection

Yellowish halos around lights

Answer: 3

Explanation:

Narrowing of the field of vision is not a side effect of risperidone (Risperdal).

Joint pain or swelling is not a side effect of risperidone (Risperdal).

Signs of a sore throat or an infection could indicate agranulocytosis, which is a life-threatening side effect of risperidone (Risperdal).

Yellowish halos around lights are not a side effect of risperidone (Risperdal).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

management across the health-illness continuum, across lifespan, and in all healthcare settings. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and

quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with schizophrenia whose symptoms have been controlled with a liquid prescription reports both positive and negative symptoms have returned over the last week. Which question should the nurse ask the patient?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

"Have you mixed your prescription in any liquids?"

"Have you changed pharmacies?"

"What was your last fasting blood glucose?"

"Have you started smoking again?"

"Are you consuming more dairy products than usual?"

Answer: 1, 2, 4

Explanation:

Mixing the prescription in cola, tea, or caffeine-containing liquids may change effectiveness.

The client should not switch brands of medication.

Blood glucose management is important but does not cause these symptoms the client is experiencing.

Smoking may decrease the effectiveness of some prescriptions.

Consuming more dairy products does not affect the absorption of the prescription.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse provides dietary education for a client prescribed an antipsychotic. Which food should the client identify to eliminate that indicates teaching was effective?

1. Meats with a high fat content
2. Beverages with caffeine
3. Refined breads and desserts
4. Shellfish and peanuts

Answer: 2

Explanation:

1. High-fat meats do not affect the action of antipsychotic medications.
2. The use of caffeine-containing substances will decrease the effect of antipsychotic medications.
3. Refined breads and desserts do not affect the action of antipsychotic medications.
4. Shellfish and peanuts do not affect the action of antipsychotic medications.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client taking an antipsychotic reports not having a bowel movement for 2 days. Which action should the nurse take?

1. Hold the prescription until the client has a bowel movement.
2. Have the client drink prune juice and additional fluids.
3. Request a prescription for a Fleet enema.
4. Obtain a prescription for a stool softener.

Answer: 2

Explanation:

1. Antipsychotic prescriptions should not be held because of constipation.
2. Constipation is a common side effect of antipsychotic prescriptions. The best approach is to have the client increase dietary fiber and fluids and to exercise to prevent constipation.
3. Contacting the healthcare provider to request a prescription for a Fleet enema is premature.
4. Contacting the healthcare provider to request a prescription for a stool softener is premature.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client refuses an antipsychotic because it causes a dry mouth. Which response should the nurse make?

1. "Can you tell me why you are refusing the medicine?"
2. "I can give you another prescription to help with the dry mouth."
3. "I will let your healthcare provider know about your dry mouth."
4. "A dry mouth is common, but drinking more water will help."

Answer: 4

Explanation:

1. Asking the client why they are refusing their medication is an inappropriate question, as the nurse knows the client is experiencing a dry mouth. The question should be rephrased to clarify if the dry mouth is the reason the client is refusing the medication.
2. Administering another prescription for the dry mouth does not address the immediate problem.
3. A dry mouth is a common side effect that can be alleviated with nursing interventions, not necessarily by the healthcare provider.
4. The symptom of dry mouth is very common with antipsychotic prescriptions. The best approach is to have the client suck on sugarless candy, chew gum, or have frequent drinks of water.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client prescribed quetiapine (Seroquel) asks how the prescription works. Which response should the nurse make to the client?

1. "Quetiapine (Seroquel) decreases norepinephrine in the brain, which decreases your auditory hallucinations."
2. "Quetiapine (Seroquel) increases norepinephrine in the brain, which decreases the feelings of depression."
3. "Quetiapine (Seroquel) decreases dopamine in the brain, which decreases your symptoms."
4. "Quetiapine (Seroquel) increases dopamine in the brain, which helps to think more clearly."

Answer: 3

Explanation:

1. Quetiapine (Seroquel) does not decrease norepinephrine in the brain.
2. Quetiapine (Seroquel) does not increase norepinephrine in the brain.
3. Quetiapine (Seroquel) acts by interfering with the binding of dopamine to its receptors in the brain.
4. Quetiapine (Seroquel) does not increase dopamine in the brain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

The educator is discussing the symptoms of schizophrenia with a nurse. Which receptor site should the educator associate with the symptoms?

1. Dopamine type 2
2. Adrenergic
3. Beta2
4. Cholinergic

Answer: 1

Explanation:

1. Symptoms of schizophrenia seem to be connected with dopamine type 2 receptors.
2. Symptoms of schizophrenia are not associated with adrenergic receptors.
3. Symptoms of schizophrenia are not associated with beta2 receptors.
4. Symptoms of schizophrenia are not associated with cholinergic receptors.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 16-1 Explain theories for the etiology of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with a psychiatric history is attempting to communicate using made-up words. In which way should the nurse categorize this behavior?

1. Symptom of depression
2. Positive symptom of schizophrenia
3. Negative symptom of schizophrenia
4. Symptom of bipolar disorder

Answer: 2

Explanation:

1. Making up words is not a symptom of depression.
2. The use of made-up words is a positive symptom of schizophrenia.
3. Making up words is not a negative symptom of schizophrenia.
4. Making up words is not a symptom of bipolar disorder.

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Cognitive Level: Understanding

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-2 Compare and contrast the positive and negative symptoms of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is demonstrating positive and negative symptoms of schizophrenia. Which medication should the nurse anticipate being prescribed for this client?

1. Thioridazine
2. Haloperidol (Haldol)
3. Clozapine (Clozaril)
4. Chlorpromazine

Answer: 3

Explanation:

1. Conventional antipsychotic agents like thioridazine are indicated for positive symptoms.
2. Conventional antipsychotic agents like haloperidol (Haldol) are indicated for positive symptoms.
3. Clozaril is an atypical antipsychotic indicated for positive and negative symptoms of schizophrenia.
4. Conventional antipsychotic agents like chlorpromazine are indicated for positive symptoms.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 16-3 Discuss the pharmacologic management of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client taking medication for other conditions is prescribed haloperidol (Haldol). For which condition should the nurse question giving the client this medication?

1. Severe depression
2. Hypothyroidism
3. Diabetes mellitus
4. Urinary tract infection

Answer: 1

Explanation:

1. Contraindications for a phenothiazine includes taking medication for severe depression.
2. Pharmacological treatment for hypothyroidism is not contraindicated with a phenothiazine.
3. Pharmacological treatment for diabetes mellitus is not contraindicated with a phenothiazine.
4. Pharmacological treatment for a urinary tract infection is not contraindicated with a phenothiazine.

Page Ref: 195

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-4 Explain the indications and adverse effects of the phenothiazine antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client prescribed haloperidol (Haldol) is observed making wormlike movements with the tongue. In which way should the nurse categorize this behavior?

1. An adverse effect likely caused by the medication
2. A normal reaction to the medication that will resolve within a few weeks
3. An indication that the patient has not taken the prescription
4. A symptom of the underlying psychosis

Answer: 1

Explanation:

1. Tardive dyskinesia is an adverse effect of the prescription that is characterized by wormlike movements of the tongue.
2. This reaction will not resolve within a few weeks.
3. While this effect does indicate the patient is taking the medication, it is not desirable.
4. This symptom is not associated with psychosis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-4 Explain the indications and adverse effects of the phenothiazine antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse observes a client with extrapyramidal symptoms having difficulty relaxing. In which way should the nurse document this finding?

1. Dystonia
2. Tardive dyskinesia
3. Akathisia
4. Secondary parkinsonism

Answer: 3

Explanation:

1. Dystonia involves severe muscle spasms, particularly of the back, neck, tongue, and face.
2. Tardive dyskinesia is characterized by unusual tongue and face movements, such as lip smacking.
3. The inability to relax is associated with akathisia.
4. Secondary parkinsonism includes tremor, muscle rigidity, stooped posture, and a shuffling gait.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 16-4 Explain the indications and adverse effects of the phenothiazine antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client overdosed approximately 20 minutes prior on risperidone (Risperdal). Which intervention should the nurse be prepared to perform?

1. Administer a central nervous system depressant
2. Administer an anticholinergic
3. Administer activated charcoal
4. Provide symptom management

Answer: 3

Explanation:

1. Central nervous system depressants will likely worsen symptoms.
2. Anticholinergic agents will likely worsen symptoms.
3. Activated charcoal will bind the Risperdal that has not been absorbed and prevent absorption into the bloodstream.
4. Symptom management might be warranted; however, the overdose occurred only 20 minutes prior so administering activated charcoal is a more effective treatment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

A client taking an antipsychotic agent develops an elevated blood pressure, dyspnea, and an elevated temperature. Which disorder should the nurse suspect is occurring in this client?

1. Akathisia
2. Extrapyramidal side effects
3. Acute dystonia
4. Neuroleptic malignant syndrome

Answer: 4

Explanation:

1. Akathisia is an inability to rest or relax.
2. Extrapyramidal side effects include dystonia, akathisia, secondary parkinsonism, and tardive dyskinesia.
3. Acute dystonia involves severe muscle spasms, particularly of the back, neck, tongue, and face.
4. Symptoms associated with neuroleptic malignant syndrome include elevated blood pressure, dyspnea, and a high fever.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is demonstrating negative symptoms of schizophrenia. Which barrier should the nurse anticipate will make treating the client difficult?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client feels that their behavior is normal.
2. Family members feel the client is going through a period of depression.
3. The client is suspicious of the motives of the healthcare provider.
4. Family members have labeled the patient as lazy.
5. The client is indifferent to obtaining help.

Answer: 2, 4, 5

Explanation:

1. Clients with a psychosis rather than the negative symptoms of schizophrenia are often unaware that their bizarre behavior is not normal.
2. Negative symptoms of schizophrenia are often mistaken for depression.
3. Suspicion that someone is trying to do harm is characteristic of delusions.
4. Negative symptoms of schizophrenia are often mistaken for laziness.
5. Negative symptoms are characteristic of the indifferent personality.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 16-2 Compare and contrast the positive and negative symptoms of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is hearing voices that encourage self-harm actions. Which question should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Do you have any family members with schizophrenia?"
2. "Do you use any street drugs?"
3. "Have you recently experienced any episodes of anxiety?"
4. "Do you have a family history of heart disease?"
5. "Have you experienced any emotional or physical abuse?"

Answer: 1, 2

Explanation:

1. There appears to be a genetic component because many clients with schizophrenia have family members who have been afflicted with the same disorder.
2. Use of drugs such as cocaine can produce hallucinations or paranoia.
3. A history of anxiety is not associated with the development of schizophrenia.
4. A family history of heart disease is not associated with the development of schizophrenia.
5. Emotional or physical abuse is not specifically identified as influencing the onset of schizophrenia.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client with a history of schizophrenia has stopped taking clozapine (Clozaril) after 4 weeks of therapy. Which reason should the nurse suspect contributed to the client abruptly stopping the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Feeling sedated
2. Significant weight gain
3. Agitation
4. Fatigue and headache
5. Uncontrollable sexual urges

Answer: 1, 2, 3, 4

Explanation:

1. Clients do not like the side effect of sedation.
2. Substantial weight gain has been reported in some clients taking this medication, resulting in discounting the prescription.
3. Agitation may be an extrapyramidal symptom of treatment with this medication and is an unwanted adverse effect.
4. Fatigue and headache are possible side effects of this medication.
5. Side effects include loss of libido, not uncontrollable sexual urges.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-6 Explain the indications and adverse effects of the second-generation, atypical antipsychotics.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse is assessing a female client who has been taking chlorpromazine. Which should the nurse include in the assessment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Ask the client if herbal medicine is being taken.
2. Obtain a lipid profile.
3. Ask the client questions regarding amount of alcohol intake.
4. Determine the date of the last menstrual period.
5. Assess thyroid function with laboratory work.

Answer: 1, 2, 3, 4

Explanation:

1. St. John's wort and kava may increase the risk and severity of dystonia.
2. Antipsychotic drugs have cardiometabolic effects. A lipid profile should be drawn at each visit.
3. It is important to assess for alcohol use as this could cause excessive drowsiness.
4. It is important to assess for pregnancy as this drug is Pregnancy Category C.
5. There is no indication that antipsychotics affect thyroid function, and nothing in the scenario indicates the need to check thyroid function.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client taking risperidone (Risperdal) for schizophrenia is experiencing signs of hypotension with certain activities. Which information should the nurse provide the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Avoid being outside in the heat of the day.
2. Avoid hot baths or hot showers.
3. Avoid vitamin C—containing preparations.
4. Change positions slowly, especially from lying or sitting to standing.
5. Take frequent naps during the day.

Answer: 1, 2, 4

Explanation:

1. The client should avoid any situation that might cause overheating, especially in hot weather, to reduce the risk of hypotension.
2. Hot baths and hot showers should be avoided to decrease the chance of hypotension.
3. There is no association between vitamin C—containing products and hypotension.
4. Changing positions slowly will help reduce orthostatic hypotension.
5. Frequent naps will not affect the symptoms of hypotension.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is diagnosed with a mental health condition. Which statement indicates the client may be experiencing psychosis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The servants need to be disciplined."
2. "The voice told me to cut myself."
3. "I have not had an appetite for weeks."
4. "Close the door so that man can't get to me."
5. "I have not been able to get any sleep for months."

Answer: 1, 2, 4

Explanation:

1. This statement is an example of a grandiose delusion.
2. This statement is an example of an auditory hallucination.
3. A loss of appetite is not a symptom of psychosis.
4. This statement is an example of a delusion in which someone is trying to harm the client.
5. The lack of sleep is not a symptom of psychosis.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine drugs used for psychoses.

The nurse is completing a health history for a client with schizophrenia. Which behavior should indicate to the nurse that the client is experiencing positive signs of schizophrenia?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Disorganized sentence structure
2. Kicking the nurse
3. Not responding to questions
4. Difficulty following instructions
5. Stating that God wants the client to go home

Answer: 1, 2, 5

Explanation:

1. Disorganized speech is a positive symptom of schizophrenia.
2. Combativeness is a positive symptom of schizophrenia.
3. Lack of responsiveness is a negative symptom of schizophrenia.
4. Difficulty following instructions is not a positive symptom of schizophrenia.
5. A delusion is a positive symptom of schizophrenia.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 16-2 Compare and contrast the positive and negative symptoms of schizophrenia.

MNL Learning Outcome: Examine drugs used for psychoses.

A client is prescribed an intramuscular injection of chlorpromazine. Which anatomical location should the nurse administer the medication?

1. Gluteal
2. Deltoid
3. Vastus lateralis
4. Ventrogluteal

Answer: 1

Explanation:

1. Chlorpromazine should be administered intramuscularly deep into the gluteal.
2. Chlorpromazine is not administered in the deltoid.
3. Chlorpromazine is not administered in the vastus lateralis.
4. Chlorpromazine is not administered in the ventrogluteal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 16-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for psychoses.

MNL Learning Outcome: Examine drugs used for psychoses.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 17 Drugs for Seizures**

1) A client diagnosed with epilepsy asks why medication is needed. Which response should the nurse make to the client?

1. "The medication will decrease the intensity of the seizures."
2. "You will need medication for a little while to cure the seizures."
3. "You will need to take medication on a continual basis to control the seizures."
4. "You might not need medication; the epilepsy may be controlled with a ketogenic diet."

Answer: 3

Explanation:

1. The medication is intended to prevent seizure activity.
2. Epilepsy and associated seizures are not curable with medications.
3. Epilepsy is a condition for which seizures may occur on a chronic basis. Once seizures are controlled, clients will continue indefinitely on antiseizure medication.
4. A ketogenic diet is used when seizures cannot be controlled through pharmacotherapy or when there are unacceptable side effects to the prescriptions.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-3 Explain general pharmacologic approaches to managing seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

2) The nurse instructs a client with epilepsy. Which statement indicates to the nurse that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Excessive stress levels cause disruptions in how the brain receives oxygen, leading to epilepsy."
2. "Epilepsy may be caused by a head injury."
3. "Eating disorders, like anorexia nervosa, increase the risk for developing epilepsy."
4. "A stroke, or brain attack, could increase the risk for developing epilepsy."
5. "With some cases of epilepsy, the cause is never determined."

Answer: 2, 4, 5

Explanation:

1. Excessive levels of stress cannot disrupt cerebral oxygen to the extent that epilepsy would occur.
2. Head trauma is a known cause of seizures.
3. There is no known correlation of anorexia nervosa with the development of epilepsy.
4. Changes in cerebral perfusion such as hypotension, stroke or brain attack, and shock may be causes of seizures.
5. In some cases, the exact etiology may not be identified.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

3) A client asks the nurse to describe the characteristics of absence seizures. Which explanation should the nurse provide the client?

1. "Absence seizures are basically the same kind of seizures as grand mal, but they are less frequent."
2. "This type of seizure is characterized by staring into space for a few seconds."
3. "Absence seizures are characterized by twitching of the arms and legs."
4. "This type of seizure is similar to drop attacks."

Answer: 2

Explanation:

1. Grand mal, or tonic-clonic, seizures are different from absence or petit mal seizures; they are different forms of epilepsy.
2. Absence seizures last a few seconds and are characterized by staring into space.
3. Simple partial seizures are characterized by twitching of the arms and legs.
4. Drop attacks or atonic seizures last a few seconds and are characterized by stumbling or falling for no reason.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

4) A client who takes phenytoin (Dilantin) for epilepsy and has been seizure free asks why blood testing is still needed. Which response should the nurse make to the client?

1. "Phenytoin (Dilantin) has a very narrow range between a therapeutic dose and a toxic dose."
2. "Phenytoin (Dilantin) can cause blood-thinning in some clients."
3. "Phenytoin (Dilantin) can cause Stevens-Johnson syndrome, which can be detected through blood testing."
4. "Phenytoin (Dilantin) can deplete your system of potassium."

Answer: 1

Explanation:

1. Phenytoin (Dilantin) has a very narrow range between a therapeutic dose and a toxic dose; blood levels must be monitored to ensure a therapeutic level and to prevent toxicity.
2. Phenytoin (Dilantin) is not an anticoagulant and does not cause thinning of the blood.
3. Stevens-Johnson syndrome is a severe skin reaction that can be an adverse outcome with phenytoin (Dilantin), but it is monitored by skin assessment, not blood tests.
4. There is no evidence to support that phenytoin (Dilantin) causes potassium depletion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-3 Explain general pharmacologic approaches to managing seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

5) The nurse instructs a client on the pharmacologic management of epilepsy. Which statement indicates that teaching was effective?

1. "I understand that I will take an antiseizure prescription indefinitely."
2. "I will avoid foods with tyramine while taking my antiseizure prescription."
3. "I will be on a ketogenic diet combined with an antiseizure prescription."
4. "I will remain on an antiseizure prescription for 1 year after my last seizure."

Answer: 1

Explanation:

1. Once seizures have been controlled, clients are continued indefinitely on the antiseizure drug.
2. A tyramine-free diet is indicated for clients receiving monoamine oxidase inhibitor medications.
3. A ketogenic diet is indicated when seizures cannot be controlled through pharmacotherapy or when there are unacceptable side effects to the medications.
4. It is unknown how long antiseizure drugs will be necessary, but many clients require a lifetime regimen.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 17-3 Explain general pharmacologic approaches to managing seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

6) A client in status epilepticus receives intravenous (IV) diazepam (Valium). Which assessment should the nurse make a priority?

1. Respirations
2. Level of consciousness
3. Heart rate
4. Blood pressure

Answer: 1

Explanation:

1. Respiratory depression is common when diazepam is given intravenously (IV). Assessing the respirations is the most important.
2. Assessing the level of consciousness is not the most important assessment to complete.
3. Although tachycardia is a side effect of intravenous diazepam (Valium), assessing the client's heart rate is not the most important assessment.
4. Although hypotension is an effect of intravenous diazepam (Valium), the blood pressure is not the most important assessment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-6 Describe the adverse effects and indications for benzodiazepines in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

7) The nurse cares for a client with a seizure disorder. Which route should the nurse prepare to administer phenytoin (Dilantin)?

1. Intramuscular
2. Through a central venous catheter
3. Intravenous
4. Subcutaneous

Answer: 3

Explanation:

1. Phenytoin is not administered intramuscularly. The medication is a soft-tissue irritant that causes local tissue damage following extravasation.
2. Phenytoin should not be administered through a central venous catheter.
3. Phenytoin is administered intravenously.
4. Phenytoin is not administered subcutaneously. The medication is a soft-tissue irritant that causes local tissue damage following extravasation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoins and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

8) A client receiving intravenous (IV) fluids containing dextrose is prescribed a piggyback dose of phenytoin (Dilantin). Which action should the nurse take when giving this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Use a large vein for the infusion.
2. Use an IV line with a filter.
3. Flush the IV line with saline.
4. Monitor the client for hypertension.
5. Monitor the client for Stevens-Johnson syndrome.

Answer: 1, 2, 3

Explanation:

1. Phenytoin (Dilantin) is a soft-tissue irritant that will cause local tissue damage if extravasation occurs, so a large vein must be used for infusion.
2. An intravenous filter will trap any precipitate that occurs.
3. Intravenous infusions with dextrose must be flushed with saline, as traces of dextrose can cause microscopic precipitate formations that become emboli, if infused.
4. Clients receiving phenytoin (Dilantin) are at risk for hypotension, not hypertension.
5. Stevens-Johnson syndrome is a side effect of phenytoin (Dilantin), but occurs over the course of several days.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoins and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

9) A client receiving valproic acid (Depakene) for treatment of seizures takes aspirin 81 mg by mouth every day. For which assessment finding should the nurse monitor the client?

1. Increased seizure activity
2. Stevens-Johnson syndrome
3. Migraine headaches
4. Bruising of the skin

Answer: 4

Explanation:

1. Valproic acid (Depakene) and aspirin do not increase the risk of seizure activity.
2. Stevens-Johnson syndrome is a side effect of valproic acid (Depakene); its occurrence is not increased with concomitant aspirin use.
3. Valproic acid (Depakene) and aspirin use are not associated with migraine headaches.
4. Valproic acid (Depakene) can prolong bleeding time; concomitant aspirin use can cause severe bleeding.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoins and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

10) A client taking phenobarbital for epilepsy is planning a pregnancy. Which statement should the nurse make to the client?

1. "Your medication dose will need to be decreased during your pregnancy."
2. "Please talk to your healthcare provider; this drug is contraindicated in pregnancy."
3. "Your medication dose will need to be increased during your pregnancy."
4. "Please talk to your healthcare provider; you will need a safer drug like valproic acid."

Answer: 2

Explanation:

1. The medication does not need to be decreased; it might need to be stopped.
2. Phenobarbital is teratogenic in humans and should only be used in pregnancy if the potential benefits to the client justify the potential risks to the fetus.
3. The medication does not need to be increased; it might need to be stopped.
4. Valproic acid can cause birth defects if taken during pregnancy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-5 Describe the adverse effects and indications for barbiturates in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

11) A client taking phenytoin (Dilantin) wants to stop the medication because of the side effects. Which response should the nurse make to the client?

1. "Please do not stop the medication abruptly, as you will have withdrawal seizures."
2. "Side effects are a problem, but they are not as bad as the seizures you were having."
3. "Another prescription can be added to decrease the side effects."
4. "Your seizures have been controlled so I will let your healthcare provider know that you no longer will be taking the medication."

Answer: 1

Explanation:

1. Seizures are likely to occur with abrupt withdrawal of antiseizure medication. The prescription must be withdrawn over a period of 6 to 12 weeks.
2. Telling a client that medication side effects are not as bad as seizures is an inappropriate and nontherapeutic response that does not address the client's concerns.
3. There is no other prescription that can be added to decrease the side effects associated with phenytoin.
4. It is not within the nurse's scope of practice to determine if a client has been taking a medication long enough. The client must be informed of the consequences of abruptly stopping the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoin and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

12) A client with type I diabetes is prescribed phenytoin (Dilantin). Which therapy should the nurse anticipate to be included in the treatment plan?

1. Decrease the insulin dose
2. Increase the insulin dose
3. Monitor coagulation studies
4. Implement fall precautions

Answer: 2

Explanation:

1. Phenytoin (Dilantin) can increase serum glucose levels.
2. Phenytoin (Dilantin) can increase serum glucose levels resulting in the need for additional insulin.
3. All clients receiving phenytoin (Dilantin) are at risk for petechiae, epistaxis, and hematuria; this is not specific to the client with type 1 diabetes.
4. All clients receiving phenytoin (Dilantin) are at risk for dizziness and ataxia; this is not specific to the client with type 1 diabetes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoins and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

13) The nurse instructs the parent of a child prescribed valproic acid (Depakene) syrup. Which statement made by the parent indicates teaching was effective?

1. "I should not mix this with carbonated beverages."
2. "If my child gets a headache from this, I can administer a baby aspirin."
3. "I can still give the clonazepam prescribed by the psychiatrist for sleep."
4. "I can give this on a full stomach or an empty stomach."

Answer: 1

Explanation:

1. Mixing valproic acid (Depakene) syrup with carbonated beverages will trigger immediate release of the drug, which causes severe mouth and throat irritation.
2. Aspirin can increase valproic acid (Depakene) toxicity, and aspirin should not be given to children because of Reye syndrome.
3. Clonazepam given with valproic acid (Depakene) can induce absence seizures.
4. Valproic acid (Depakene) is a gastrointestinal (GI) irritant and should be given with food.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoin and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

14) A client taking phenobarbital (Luminal) for seizure control asks how the medication controls seizures. Which response should the nurse make to the client?

1. "Phenobarbital (Luminal) stops seizures by decreasing the calcium in the brain, which is responsible for the seizures."
2. "Phenobarbital (Luminal) stops seizures by increasing a chemical called glutamate that calms down the excitability in the brain."
3. "Phenobarbital (Luminal) stops seizures by decreasing the sodium in the brain, which is responsible for the seizures."
4. "Phenobarbital (Luminal) stops seizures by increasing a chemical called gamma-aminobutyric acid, or GABA, that calms down the excitability in the brain."

Answer: 4

Explanation:

1. Succinimides, not phenobarbital, suppress calcium influx.
2. Glutamate is the primary excitatory neurotransmitter in the brain; enhancing this neurotransmitter will increase the likelihood of seizures.
3. Hydantoins and phenytoin-like drugs, not phenobarbital, suppress sodium influx.
4. Phenobarbital acts biochemically in the brain by enhancing the action of the neurotransmitter GABA, which is responsible for suppressing abnormal neuronal discharges that can cause epilepsy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 17-5 Describe the adverse effects and indications for barbiturates in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

15) An older adult is prescribed phenobarbital (Luminal) for seizure control. Which assessment should the nurse make a priority?

1. Fluid intake
2. Electrolyte balance
3. Respiratory function
4. Nutritional status

Answer: 3

Explanation:

1. Fluid intake is often decreased in older adults but is not a side effect of barbiturates.
2. Barbiturates do not affect electrolyte balance.
3. Older adults are at risk for cumulative effects of barbiturates due to diminished hepatic and renal function. Central nervous system depression can lead to suppression of respiratory function.
4. Nutritional status is important with older adult patients but is not the primary concern.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-5 Describe the adverse effects and indications for barbiturates in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

16) The nurse is teaching a client who is newly diagnosed with a seizure disorder. Which statement should the nurse include in the discussion?

1. "Convulsions are a symptom of the underlying seizure disorder."
2. "Bacterial infections can cause seizures."
3. "Epilepsy is an acute disorder characterized by nonconvulsive seizures."
4. "All seizures involve convulsions."

Answer: 2

Explanation:

1. Convulsions are a type of seizure, and seizures are a symptom of an underlying disorder.
2. Seizures can be caused by bacterial infections of the nervous system.
3. Epilepsy is generally chronic and can present with convulsive seizures.
4. Not all seizures involve convulsions.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 17-1 Compare and contrast the terms seizures, convulsions, and epilepsy and identify potential causes of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

17) During a conversation, a client stops talking mid-sentence and has a blank stare for 5 seconds. Which condition should the nurse suspect the client is experiencing?

1. Simple partial seizure
2. Status epilepticus
3. Petit mal seizure
4. Drop attack

Answer: 3

Explanation:

1. Simple partial seizures manifest in olfactory, auditory, or visual hallucinations; intense emotions; or twitching of the arms, legs, and face.
2. Status epilepticus is continuous seizure activity, which can lead to coma or death.
3. The symptoms presented indicate a general (absence) or petit mal seizure.
4. Drop attacks are manifested by falling or stumbling for no reason. These attacks typically last a few seconds.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

18) A parent questions the diagnosis of epilepsy for their child because of an absence of physical

body movements. Which information should the nurse include when responding to the parent?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The episodes of jerking and thrashing are called convulsions."
2. "Seizures take many forms."
3. "Your child may have seizures but not epilepsy."
4. "Seizures can be a sign that epilepsy is present."
5. "If there is no physical movement, epilepsy is ruled out."

Answer: 1, 2, 4

Explanation:

1. Convulsions are the involuntary, violent spasms of the large skeletal muscles of the face, neck, arms, and legs. It is important to provide this parent with correct terminology.
2. There are many types of seizures.
3. It is inappropriate to lead the parent to believe that the diagnosis is incorrect. The nurse does not have all the necessary information.
4. Epilepsy is any disorder that is characterized by recurrent seizures.
5. Many seizures do not include physical movement, yet the client still is diagnosed with epilepsy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-1 Compare and contrast the terms seizures, convulsions, and epilepsy and identify potential causes of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

19) A client has taken several different medications for seizure control without any improvement. Which initial question should the nurse ask the client?

1. "Have you thought about taking a nontypical medication?"
2. "Have you noticed any decrease in the number of seizures you have?"
3. "Do you take your medication as prescribed?"
4. "Do you drink alcohol?"

Answer: 3

Explanation:

1. Another drug might be indicated, but compliance should be assessed first.
2. There is no indication there is an improvement in seizure control.
3. Compliance with the prescription should be initially assessed for a client that has not had an improvement in seizure control after taking several different medications for it.
4. Alcohol does not increase the risk of seizures for a client prescribed an antileptic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-3 Explain general pharmacologic approaches to managing seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

20) A client is taking phenytoin (Dilantin) for a seizure disorder. For which adverse effect should the nurse monitor the client?

1. Vitamin B deficiency
2. Leg edema
3. Bleeding
4. Hypoglycemia

Answer: 3

Explanation:

1. Dilantin affects the metabolism of vitamin K, which can lead to blood dyscrasias.
2. Leg edema is not generally experienced as an adverse effect.
3. Dilantin affects the metabolism of vitamin K, which can lead to blood dyscrasias and bleeding.
4. Hyperglycemia is more common than hypoglycemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoin and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

21) The nurse is reviewing the records for a client with petit mal seizures. Which medication should the nurse anticipate the client has been taking?

1. Diazepam (Valium)
2. Carbamazepine (Tegretol)
3. Phenytoin (Dilantin)
4. Ethosuximide (Zarontin)

Answer: 4

Explanation:

1. Diazepam can be effective for tonic-clonic seizures.
2. Carbamazepine is used to treat partial and tonic-clonic seizure disorders.
3. Dilantin can be effective for tonic-clonic seizures.
4. Ethosuximide is a succinimide that is indicated for petit mal seizures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated

Concepts: Nursing Process: Assessment

Learning Outcome: 17-8 Describe the adverse effects and indications for succinimides and other drugs that suppress calcium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

22) The nurse is reviewing medications used to treat a seizure disorder. Which medication should the nurse identify that has a risk associated with extravasation?

1. Phenobarbital (Luminal)
2. Phenytoin (Dilantin)
3. Ethosuximide (Zarontin)
4. Clonazepam (Klonopin)

Answer: 2

Explanation:

1. Phenobarbital is primarily administered orally and is infrequently administered intravenously.
2. Phenytoin is frequently administered intravenously due to slow and variable absorption rates when given orally. Phenytoin results in serious soft tissue damage if extravasation occurs.
3. Ethosuximide is an oral medication.
4. Clonazepam is an oral medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated

Concepts: Nursing Process: Planning

Learning Outcome: 17-9 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for epilepsy and seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

23) A client is diagnosed with a seizure disorder. Which finding should the nurse anticipate after the client has a tonic-clonic seizure?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Incontinence of urine
2. Deep sleep
3. Confusion in relation to place and time
4. Odd taste in the mouth
5. Attempting to remove the hospital gown

Answer: 2, 3

Explanation:

1. Incontinence of bowel or bladder is common during a tonic-clonic seizure but is not indicative of a postictal state.
2. Deep sleep after the seizure is a finding associated with the postictal state.
3. Clients who are in the postictal state may be confused and disoriented.
4. An odd taste, specific odor or noise, or other sensory change known as an aura often occurs prior to a seizure.
5. During complex partial seizures, clients sometimes fumble with or attempt to remove clothing.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-1 Compare and contrast the terms seizures, convulsions, and epilepsy and identify potential causes of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

24) The nurse instructs the parents of a child with tonic-clonic seizures. Which statement indicates to the nurse that further teaching is needed?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Some of the times when I thought he was ignoring me may have actually been seizure activity."
2. "My child just needs to focus more to prevent these attacks."
3. "I know my child will outgrow these seizures with time."
4. "I hope we can help our child identify the seizure aura."
5. "We will watch for the development of status epilepticus."

Answer: 1, 2, 3

Explanation:

1. Behavior that manifests as the child ignoring outside stimuli is most likely absence seizure, which is different from tonic-clonic seizure.
2. The client who suffers seizure disorder cannot prevent seizure occurrence by focusing harder.
3. The client with tonic-clonic seizure disorder is less likely to outgrow it than the client with absence seizure disorder.
4. Many clients experience an aura prior to the tonic-clonic phase. Identifying the aura can provide time for the client to move to a safe area, notify another person of the impending seizure, and prepare.
5. Status epilepticus is a medical emergency that may occur in the client who experiences a tonic-clonic seizure disorder.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

25) A client taking valproic acid (Depakene) for a seizure disorder is planning a pregnancy. Which statement should the nurse include in a discussion with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Since your seizure disorder may be exacerbated by a pregnancy, your healthcare provider will most likely prescribe a second antiepileptic medication."
2. "Thankfully, the current generation of antiepileptic medications will not interfere with you getting pregnant."
3. "Your current antiepileptic medication should not be used when you are pregnant."
4. "Folic acid supplementation is important for you."
5. "You should consider adopting a baby instead since there are so many problems associated with a seizure disorder and pregnancy."

Answer: 3, 4

Explanation:

1. Due to the increased side effects of the antiepileptic medications, single drug therapy is the goal for a pregnant client.
2. Women who have a seizure disorder have a reduced fertility rate, and some do not ovulate.
3. Valproic acid can cause birth defects, especially neural tube defects. Effective contraception should be used during therapy.
4. Folic acid supplementation is important for all women who are or wish to become pregnant. This is especially true of women with a seizure disorder because many antiepileptic medications cause folic acid deficiency.
5. Women who have a seizure disorder can conceive and deliver healthy babies. The nurse should not discourage this client but should provide information to the client and then support the client's choice.

Page Ref: 214

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Implementation;

Teaching/Learning

Learning Outcome: 17-7 Describe the adverse effects and indications for hydantoin and other drugs that suppress sodium influx in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

26) The nurse is preparing to teach a client about a prescribed antiepileptic drug. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The drug should be taken at the same time every day.
2. When a dose of the medication is missed, take both doses together when the next dose is due.
3. Take an additional dose of the drug if experiencing a seizure aura.
4. When experiencing side effects, skip the next dose of the medication.
5. Avoid the use of dietary supplements containing kava while taking the medication.

Answer: 1, 5

Explanation:

1. Stable blood levels of the medication are important in the control of seizure activity; therefore, the drug should be taken at the same time daily.
2. The client should take a missed dose of the medication as soon as remembered. Two doses of the drug should not be taken at the same time or close together.
3. Oral prescriptions are not delivered rapidly to the system, so taking an additional dose of the drug when an aura occurs is not effective in controlling the impending seizure.
4. The client should never abruptly discontinue or skip doses of the medication.
5. Kava interferes with many antiepileptic drugs, often adding to their sedative effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Implementation;

Teaching/Learning

Learning Outcome: 17-3 Explain general pharmacologic approaches to managing seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

27) The nurse is teaching a parent of a 5-year-old client that experienced a febrile seizure. Which information should the nurse include?

1. After a febrile seizure, the child returns to consciousness slowly.
2. A rapid rise in body temperature can induce seizures in children.
3. A 5-year-old is too old for febrile seizures.
4. Seizure medications are usually prescribed for febrile seizures.

Answer: 2

Explanation:

1. After a febrile seizure, the child returns to consciousness rapidly.
2. Rapid increase in body temperature may result in a febrile seizure, especially in infants and toddlers.
3. Febrile seizures usually occur between 3 months and 5 years of age.
4. The best course of action for febrile seizures is prevention by using acetaminophen to prevent onset of fever.

Page Ref: 204

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 17-2 Describe the classification of seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

28) A client is prescribed ethosuximide (Zarontin) for a seizure disorder. Which information should the nurse provide to the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Did I mention that I used to take phenobarbital for my seizures?"
2. "I forgot to tell the doctor that I am allergic to penicillin."
3. "I take ginkgo to help improve my memory."
4. "My partner and I plan to have a baby in a couple of years."
5. "My partner and I are leading a 20-mile bicycle tour next weekend for the company we have just started."

Answer: 3, 5

Explanation:

1. There is no indication that previous phenobarbital use is problematic with the use of ethosuximide.
2. There is no indication of cross sensitivity with penicillin.
3. Ginkgo may reduce the therapeutic effects of ethosuximide.
4. There is incomplete data on the safety of this medication during pregnancy.
5. The most common adverse effects of ethosuximide include dizziness, ataxia, and fatigue. These side effects place the client at risk for injury while cycling.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 17-9 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for epilepsy and seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

29) A client is prescribed a ketogenic diet to supplement pharmacotherapy for a seizure disorder. Which food item should the nurse encourage the client to consume?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Foods high in fat
2. Salty foods
3. Foods high in vitamin K
4. Low-protein foods
5. Low-carbohydrate foods

Answer: 1, 4, 5

Explanation:

1. The ketogenic diet is high in fat.
2. The presence of salt is not a determining factor in inclusion of foods in a ketogenic diet.
3. The presence of high amounts of vitamin K is not a determining factor in inclusion of foods in a ketogenic diet.
4. The ketogenic diet is low in protein.
5. The ketogenic diet is low in carbohydrates.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Context and Environment: Chronic disease management. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 17-9 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for epilepsy and seizures.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

30) A client with atonic seizures is prescribed phenobarbital. Which information is the most important for the nurse to obtain?

1. "What method of birth control do you use?"
2. "Are your periods regular?"
3. "Do you have a history of infertility?"
4. "Have you ever been pregnant?"

Answer: 1

Explanation:

1. Atonic seizures can be treated with barbiturates such as phenobarbital. This drug is teratogenic in humans. It should only be used during pregnancy if the potential benefits to the mother clearly justify the potential risks to the fetus.
2. Obtaining a menstrual cycle history is important but not the most important.
3. Assessing a client for infertility is important information to obtain but not the most important.
4. Assessing a client's history of pregnancy is important information to obtain but not the most important.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Context and Environment: Chronic disease management. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 17-5 Describe the adverse effects and indications for barbiturates in treating epilepsy.

MNL Learning Outcome: Examine the pharmacotherapy of seizures.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 18 Drugs for Pain Management**

1) The nurse instructs a client about the use of nonpharmacological techniques for pain management. Which statement indicates the client understands the information?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected.* Select all that apply.

1. "Nonpharmacological techniques are a good adjunct to pharmacotherapy."
2. "Nonpharmacological techniques have not reached mainstream yet."
3. "Nonpharmacological techniques may be used in place of drugs."
4. "Nonpharmacological techniques include aerobic exercise."
5. "Nonpharmacological techniques are not usually valued by nurses."

Answer: 1, 3

Explanation:

1. Nonpharmacological techniques may be used as an adjunct to pharmacotherapy.
2. Nonpharmacological techniques have reached mainstream and are commonly used.
3. Nonpharmacological techniques may be used in place of drugs.
4. Aerobic exercise is not considered a nonpharmacological technique for relief of pain.
5. Nonpharmacological techniques are valued and used by most nurses.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning  
Learning Outcome: 18-3 Describe the role of complementary and alternative therapies in pain management.  
MNL Learning Outcome: Examine drugs used for pain management.

2) The nurse is asked to explain the neural mechanism of pain. Which information should the nurse reply about substance P?

1. Substance P modifies sensory information in the spinal cord.
2. Substance P is also known as an endogenous opioid.
3. Substance P stimulates pain receptors in the spinal cord.
4. Substance P controls which pain signals reach the brain.

Answer: 4

Explanation:

1. Endogenous opioids, not substance P, modify sensory information at the level of the spinal cord.
2. Substance P is not an endogenous opioid.
3. Substance P does not stimulate pain receptors in the spinal cord.
4. Spinal substance P is critical because it controls whether pain signals will continue to the brain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-2 Explain the neural mechanisms at the level of the spinal cord responsible for pain.

MNL Learning Outcome: Examine drugs used for pain management.

3) A client asks how methadone can help with heroin dependence. Which response should the nurse make?

1. "It will cause illness if heroin is used."
2. "It does not cause euphoria like heroin does."
3. "It can cure an addiction to heroin."
4. "It causes an allergic reaction to heroin."

Answer: 2

Explanation:

1. Methadone will not cause a person to become ill if they use heroin.
2. Methadone does not cause the euphoria of heroin. It is a substitute prescription that allows the client to be productive.
3. Methadone does not cure heroin addiction.
4. Methadone does not cause an allergic reaction to heroin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-7 Describe strategies used for long-term treatment of opioid dependence.

MNL Learning Outcome: Examine drugs used for pain management.

4) The nurse is preparing teaching on the use of heroin. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Heroin is an opioid drug.
2. Heroin is a narcotic drug.
3. Heroin causes central nervous system agitation.
4. Heroin is the same drug as morphine.
5. Heroin is not as dangerous as oxycodone.

Answer: 1, 2

Explanation:

1. Heroin is classified as an opioid.
2. Heroin is an illegal drug. *Narcotic* is the term often used to describe such drugs.
3. Heroin causes central nervous system depression, not agitation.
4. Morphine and heroin are in the same class but are different drugs.
5. Heroin is addictive and dangerous—as dangerous, if not more dangerous, as oxycodone.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-7 Describe strategies used for long-term treatment of opioid dependence.

MNL Learning Outcome: Examine drugs used for pain management.

5) A client asks how morphine will control pain. Which response should the nurse make?

1. "Inhibits the primary pain neurotransmitters in your brain."
2. "Stimulates the receptors that secrete endorphins in your brain."
3. "Interacts with receptors in your body that produce analgesia."
4. "Promotes the primary pleasure neurotransmitters in your brain."

Answer: 3

Explanation:

1. Opioids do not inhibit neurotransmitters responsible for pain.
2. Opioids do not promote secretion of endorphins.
3. Opioids exert their actions by interacting with the mu and kappa receptors in the brain. Drugs that stimulate these receptors are opioid agonists.
4. Opioids do not promote release of the pleasurable neurotransmitters. Opioids do not promote secretion of endorphins.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-4 Compare and contrast the types of opioid receptors and their importance in effective management of pain.

MNL Learning Outcome: Examine drugs used for pain management.

6) The nurse is asked why naloxone (Narcan) should be available for a client with a patient-controlled analgesia (PCA) pump. Which response should the nurse make?

1. "Naloxone (Narcan) enhances the effect of the opioid in the patient-controlled analgesia (PCA) pump and increases analgesia."
2. "Naloxone (Narcan) is the antidote if an anaphylactic reaction to the opioid in the patient-controlled analgesia (PCA) pump occurs."
3. "Naloxone (Narcan) is available to treat any systemic side effects, like constipation, of the opioid in the patient-controlled analgesia (PCA) pump."
4. "Naloxone (Narcan) will reverse the effects of the narcotic in the patient-controlled analgesia (PCA) pump if an overdose occurs."

Answer: 4

Explanation:

1. Naloxone (Narcan) does not enhance the effects of opioids.
2. Naloxone (Narcan) is not used to treat anaphylactic reactions.
3. Naloxone (Narcan) is not used to treat opioid-related constipation.
4. Naloxone (Narcan) is an opioid antagonist and will reverse the effects of the narcotic in the pump if an overdose occurs.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-6 Explain the role of opioid antagonists in the diagnosis and treatment of acute opioid toxicity.

MNL Learning Outcome: Examine drugs used for pain management.

7) The nurse is caring for a client recovering from surgery. Which question should the nurse ask prior to giving the client an opioid analgesic?

1. "Have you ever been addicted to prescription pain medications?"
2. "Do you understand how this pain prescription works?"
3. "Would you like me to help you change your position for comfort?"
4. "Would you please rate your pain on a scale of 0 to 10?"

Answer: 4

Explanation:

1. Administration of pain medication postoperatively is a priority; this is not the time to assess if the client has a history of addiction.
2. Instead of asking a postoperative client if they understand how the pain medication works, the nurse should provide appropriate client teaching for the medication.
3. Repositioning should be implemented after the client has received their pain medication.
4. A client's level of pain is always assessed prior to the administration of an analgesic.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.4 Assess presence and extent of pain and suffering. | AACN

Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-1 Relate the importance of pain assessment to effective pharmacotherapy.

MNL Learning Outcome: Examine drugs used for pain management.

8) A client recovering from surgery received morphine 2 hours ago and is requesting more medication. Which initial action should the nurse take?

1. Administer another dose of morphine.
2. Ask the healthcare provider to increase the dosage.
3. Encourage the use of distraction techniques.
4. Assess the client's level of pain.

Answer: 4

Explanation:

1. The client should be assessed prior to considering more medication.
2. The client's level of pain should be assessed prior to asking the healthcare provider about the dosage of the medication.
3. Distraction techniques are appropriate but should not take the place of other interventions.
4. The client's level of pain should be assessed prior to the administration of any analgesic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.4 Assess presence and extent of pain and suffering. | AACN

Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-1 Relate the importance of pain assessment to effective pharmacotherapy.

MNL Learning Outcome: Examine drugs used for pain management.

9) A client with head trauma asks why an opioid analgesic is not prescribed. Which response should the nurse make?

1. "The use of an opioid analgesic can significantly decrease blood pressure."
2. "You may not be able to notice any changes you are experiencing."
3. "Opioids are not effective for the management of pain associated with head trauma."
4. "Opioids can mask changes in the level of consciousness."

Answer: 4

Explanation:

1. A decrease in blood pressure may occur, but this is not as critical as a masking of changes in the level of consciousness.
2. A client may not be able to effectively notice any changes they are experiencing, but this is not as critical as a masking of changes in the level of consciousness.
3. Opioids are effective in managing pain, but this is not as critical as a masking of changes in the level of consciousness.
4. Opioids are central nervous system (CNS) depressants and can mask the client's level of consciousness. A client with head trauma should be monitored for changes in the level of consciousness, which may indicate a worsening condition.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

10) A client is receiving morphine to manage pain. Which client comment should the nurse recognize as an adverse effect?

1. "My ears are constantly ringing."
2. "My heart feels like it is skipping beats."
3. "I feel like I am going to throw up."
4. "I feel cold shivers all over."

Answer: 3

Explanation:

1. Tinnitus is not associated with morphine.
2. Heart palpitations are not associated with morphine.
3. Nausea is a common side effect of morphine.
4. Feeling cold shivers is not associated with morphine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-5 Explain the use of opioid agonists in pain management.

MNL Learning Outcome: Examine drugs used for pain management.

11) A client is taking aspirin for pain control. Which statement indicates the client is experiencing an adverse reaction?

1. "My stools have been dark in color."
2. "My nose is stuffed up."
3. "Bright lights give me a headache."
4. "I have to get up a lot at night to urinate."

Answer: 1

Explanation:

1. Aspirin may result in ulceration and bleeding, which is characterized by stools that are darker than normal.
2. There is no relationship between aspirin and nasal congestion.
3. Aspirin does not cause photophobia.
4. There is no relationship between aspirin and nocturnal renal output.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-8 Explain the use of nonopioid analgesics in pain management.

MNL Learning Outcome: Examine drugs used for pain management.

12) The nurse is preparing medications for assigned clients. For which client should the nurse question giving acetaminophen (Tylenol)?

1. A 2-year-old with a high fever
2. A 65-year-old with osteoarthritis
3. A 19-year-old with a bladder infection
4. A 55-year-old who drinks alcohol

Answer: 4

Explanation:

1. Acetaminophen is the drug of choice for a child with a fever.
2. Acetaminophen is not contraindicated for a client with osteoarthritis, but aspirin is a more effective medication.
3. Acetaminophen is not contraindicated with a bladder infection.
4. Acetaminophen is hepatotoxic and may cause problems in clients who consume alcohol.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 18-8 Explain the use of nonopioid analgesics in pain management.

MNL Learning Outcome: Examine drugs used for pain management.

13) A client is prescribed acetaminophen (Tylenol) for pain management. Which teaching should the nurse provide to the client?

1. "Check your gums for bleeding when taking acetaminophen."
2. "Do not take any narcotics with acetaminophen."
3. "You may experience diarrhea while taking acetaminophen."
4. "Acetaminophen can cause your mouth to become dry."

Answer: 4

Explanation:

1. Bleeding in the gums is an effect of aspirin, not acetaminophen.
2. There is no contraindication between acetaminophen and narcotics; they are often combined for more effective pain relief.
3. Constipation is a more common effect of acetaminophen.
4. Acetaminophen can cause the mouth to become dry.

Page Ref: 232

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-8 Explain the use of nonopioid analgesics in pain management.

MNL Learning Outcome: Examine drugs used for pain management.

14) A client with migraine headaches is prescribed sumatriptan (Imitrex). Which teaching should the nurse provide to this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Do not drive until the effects of the medication are known.
2. Avoid taking echinacea while taking the medication.
3. Take the medication with a high-protein meal.
4. Take the medication with food.
5. Increase fluid intake.

Answer: 1, 2

Explanation:

1. Drowsiness and dizziness can occur with sumatriptan (Imitrex).
2. Echinacea may increase the toxicity of sumatriptan (Imitrex) and should be avoided.
3. Sumatriptan (Imitrex) does not need to be taken with protein.
4. Sumatriptan (Imitrex) does not need to be taken with food.
5. It is not necessary to increase fluid intake.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 18-11 Compare the pharmacotherapeutic approaches of preventing migraines with those of aborting migraines.

MNL Learning Outcome: Examine drugs used for pain management.

15) A client reports having a dull, aching pain in the lower back. Which type of pain should the nurse recognize the client is experiencing?

1. Acute
2. Somatic
3. Neuropathic
4. Visceral

Answer: 4

Explanation:

1. There is not enough information provided to determine if this pain is acute.
2. Somatic pain is sharp and localized.
3. The nurse cannot determine if this pain is neuropathic in origin.
4. Visceral pain is defined as a dull, throbbing, or aching pain.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.4 Assess presence and extent of pain and suffering. | AACN

Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-1 Relate the importance of pain assessment to effective pharmacotherapy.

MNL Learning Outcome: Examine drugs used for pain management.

16) The nurse is asked to explain why some people experience sharp pain. Which response should the nurse make?

1. "Once the pain impulse reaches the spinal cord, the neurotransmitters speed up the signal for sharp pain."
2. "Nervous system fibers are wrapped in myelin that speeds up the signal, resulting in the sensation of sharp pain."
3. "Both types of fibers in the spinal cord work together to signal sharp pain."
4. "Unmyelinated fibers carry the pain signal faster, resulting in the feeling of sharp pain."

Answer: 2

Explanation:

1. Neurotransmitters do not speed up the signal for sharp pain.
2. The nerve impulse signaling the pain is sent to the spinal cord along two types of sensory neurons, called A $\delta$  and C fibers. A $\delta$  fibers are thinly wrapped in myelin, a fatty substance that speeds up nerve transmission. They signal sharp, well-defined pain.
3. The fibers do not work together to signal sharp pain.
4. C fibers are unmyelinated; thus, they carry nerve impulses more slowly and conduct dull, poorly localized pain.

Page Ref: 222

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-2 Explain the neural mechanisms at the level of the spinal cord responsible for pain.

MNL Learning Outcome: Examine drugs used for pain management.

17) The nurse is asked to explain the transmission of pain. Which response should the nurse make?

1. "The transmission process begins with the activation of substance P."
2. "The transmission process begins with the A and C fibers."
3. "The transmission process begins with the nociceptors."
4. "The transmission process begins with the sensory neurons in the spinal cord."

Answer: 3

Explanation:

1. Substance P is thought to be responsible for continuing the pain message after the signals reach the spinal cord. Substance P also controls whether the pain signals will continue to the brain.
2. The nerve impulse signaling the pain is sent to the spinal cord along two types of sensory neurons, called A $\delta$  and C fibers, after the nociceptors are stimulated.
3. The transmission process begins with the nociceptors.
4. The nociceptors send the nerve impulse signaling pain to the spinal cord along the sensory neurons A $\delta$  and C.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-2 Explain the neural mechanisms at the level of the spinal cord responsible for pain.

MNL Learning Outcome: Examine drugs used for pain management.

18) The nurse is asked to explain the different types of opioid receptors. Which response should the nurse make?

1. "The sigma and kappa receptors have been traditionally targeted for pain management."
2. "Drugs that block opioid receptors inhibit the pain impulse."
3. "Opioid agonists will activate mu and kappa receptors, producing an analgesic effect."
4. "Opioids exert their actions by interacting with four different receptors."

Answer: 3

Explanation:

1. From the perspective of pain management, the mu receptors and kappa receptors have been the ones traditionally targeted.
2. Opioid antagonists do not inhibit the pain impulse.
3. Opioid agonists stimulate mu and kappa receptors, resulting in a variety of effects, including analgesia.
4. There are three major types of opioid receptors: mu, kappa, and delta.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-4 Compare and contrast the types of opioid receptors and their importance in effective management of pain.

MNL Learning Outcome: Examine drugs used for pain management.

19) A client with an oxycodone overdose has a respiratory rate of 8 and is difficult to arouse. Which medication should the nurse anticipate being prescribed?

1. Activated charcoal
2. An opioid agonist
3. An opioid antagonist
4. A mixed opioid agonist-antagonist

Answer: 3

Explanation:

1. Administering activated charcoal is not indicated when the client is nonresponsive.
2. Administering an opioid agonist would worsen the situation. Opioid agonists are used to relieve pain.
3. Opioid antagonists such as naloxone (Narcan) block opioid activity.
4. A mixed opioid agonist-antagonist would exacerbate the client's symptoms.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 18-6 Explain the role of opioid antagonists in the diagnosis and treatment of acute opioid toxicity.

MNL Learning Outcome: Examine drugs used for pain management.

20) A client experiencing respiratory depression after receiving morphine is given intravenous naloxone (Narcan). Which response should the nurse anticipate?

1. A peak effect of 10 to 20 minutes
2. An onset of action of 1 to 2 minutes
3. An onset of action of 2 to 5 minutes
4. A peak effect of 5 to 10 minutes

Answer: 2

Explanation:

1. The peak effect of naloxone is 5 to 15 minutes.
2. The onset of action after administering naloxone intravenously is 1 to 2 minutes.
3. The onset of action after administering naloxone subcutaneously is 2 to 5 minutes.
4. The peak effect of naloxone is 5 to 15 minutes.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-6 Explain the role of opioid antagonists in the diagnosis and treatment of acute opioid toxicity.

MNL Learning Outcome: Examine drugs used for pain management.

21) A client is prescribed an opioid for pain management. Which response should indicate to the nurse that teaching provided to the client was effective?

1. "I will make sure I take stool softeners."
2. "I will use a laxative if I need to."
3. "I will increase my fluid intake."
4. "I will increase my physical activity."

Answer: 3

Explanation:

1. If the client experiences severe constipation, they should be instructed to contact the healthcare provider to discuss the use of stool softeners.
2. If severe constipation occurs, the client should be instructed to contact the healthcare provider to discuss the use of laxatives.
3. The client should increase fluid intake to 2 L per day to help prevent constipation.
4. Increasing physical activity while taking an opioid places the client at risk for injury.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

22) A client receives a dose of sumatriptan (Imitrex). For which effect should the nurse monitor the client?

1. Hypotension
2. Urinary retention
3. Muscle weakness
4. Decreased level of consciousness

Answer: 4

Explanation:

1. Sumatriptan has a systemic vasoconstrictor activity that may cause hypertension.
2. Sumatriptan is not associated with urinary retention.
3. Muscle weakness is not directly associated with the administration of sumatriptan.
4. Sumatriptan selectively reduces carotid arterial blood flow, which may result in a change in the level of consciousness and seizures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 18-11 Compare the pharmacotherapeutic approaches of preventing migraines with those of aborting migraines.

MNL Learning Outcome: Examine drugs used for pain management.

23) A client with insomnia and migraine headaches has poor pain management with sumatriptan (Imitrex). Which medication should the nurse anticipate being prescribed for the client?

1. Amitriptyline
2. Propranolol (Inderal)
3. Nifedipine (Procardia)
4. Gabapentin (Neurontin)

Answer: 1

Explanation:

1. Amitriptyline is an antidepressant and is preferred for clients with migraine headaches and insomnia.
2. Propranolol is one of the most commonly prescribed medications to treat migraine headaches; however, it does not help with insomnia.
3. Nifedipine is a calcium channel blocker prescribed at times to treat migraine headaches but it does not help with insomnia.
4. Gabapentin is an antiseizure drug sometimes prescribed to treat migraine headaches; however, it does not help with insomnia.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 18-10 Identify goals for the pharmacologic management of migraines.

MNL Learning Outcome: Examine drugs used for pain management.

24) The nurse is asked how acetylsalicylic acid (aspirin) is effective for pain. Which information should the nurse include in response?

1. High doses are necessary to achieve anticoagulant effects.
2. Enteric-coated capsules are available to reduce gastrointestinal side effects.
3. Increase consumption of herbs such as garlic and ginger to potentiate the anti-inflammatory effects.
4. Low doses can significantly reduce inflammation.

Answer: 2

Explanation:

1. Aspirin can cause bleeding in low doses.
2. Enteric-coated capsules can help prevent bleeding.
3. Avoiding certain herbs such as ginger and garlic should be advised to reduce the risk of bleeding.
4. The anti-inflammatory effects of aspirin occur in high doses.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-8 Explain the use of nonopioid analgesics in pain management.

MNL Learning Outcome: Examine drugs used for pain management.

25) The nurse cares for a client experiencing chronic pain. Which selective serotonin reuptake inhibitor (SSRIs) should the nurse identify that can be prescribed as an adjuvant analgesic for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Desipramine (Norpramin)
2. Fluvoxamine (Luvox)
3. Imipramine (Tofranil)
4. Sertraline (Zoloft)
5. Fluoxetine (Prozac)

Answer: 2, 4, 5

Explanation:

1. Desipramine is a tricyclic antidepressant.
2. Fluvoxamine is an SSRI that can be prescribed as an adjuvant analgesic.
3. Imipramine is a tricyclic antidepressant.
4. Sertraline is an SSRI that can be prescribed as an adjuvant analgesic.
5. Fluoxetine is an SSRI that can be prescribed as an adjuvant analgesic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.4 Assess presence and extent of pain and suffering. | AACN

Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and

Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 18-1 Relate the importance of pain assessment to effective pharmacotherapy.

MNL Learning Outcome: Examine drugs used for pain management.

26) A parent asks why their 8-year-old child cannot have cough syrup with codeine to help the child rest. Which information should the nurse recall when responding to the parent?

1. The child can become addicted to the cough syrup.
2. Codeine is contraindicated in children.
3. Children are more likely to have an allergic reaction to codeine.
4. Codeine will exacerbate the child's condition.

Answer: 2

Explanation:

1. The child will not become addicted to the cough syrup.
2. Codeine is contraindicated in children younger than 12 years of age.
3. Children are not more likely to have an allergic reaction to codeine.
4. Codeine will not exacerbate the child's illness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing

Process: Planning

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

27) The nurse is preparing to review the records of a client with cancer prescribed buccal fentanyl. Which finding should the nurse anticipate?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client is already prescribed fentanyl.
2. The client is opioid naive.
3. The client is experiencing breakthrough pain.
4. The client has a history of migraine headaches.
5. The client is being weaned off of intravenous fentanyl.

Answer: 1, 3

Explanation:

1. Buccal fentanyl is used only for clients who are already receiving an opioid.
2. The opioid-naïve client would not be started on buccal fentanyl.
3. Buccal fentanyl is used for breakthrough cancer pain.
4. Buccal fentanyl is not used for migraine headaches.
5. Buccal fentanyl is not used to wean a client off of intravenous fentanyl.

Page Ref: 226

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies:

2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science:

Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

28) The nurse is caring for a client with migraine headaches. Which information should the nurse include when teaching about medication therapy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Use the medication at the first sign of migraine.
2. Overusing this medication may result in rebound headaches.
3. Instill the spray into one nostril only.
4. Increase dietary intake of tyramine-containing foods.
5. Pain relief will not begin for up to an hour after administration.

Answer: 1, 2, 3

Explanation:

1. In order to be most effective, these drugs should be used at the first sign of migraine.
2. Overuse of these medications may result in rebound headache.
3. Proper administration of nasal preparations includes instillation into one nostril only.
4. The client should avoid tyramine-containing foods.
5. Pain relief should begin within several minutes of use.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

29) A client with terminal cancer has a respiratory rate of 10 and requests a dose of prescribed morphine. Which action should the nurse take?

1. Hold the dose until the respirations are above 12.
2. Administer the dose of morphine.
3. Implement nonpharmacological interventions.
4. Administer a prescribed nonsteroidal anti-inflammatory drug (NSAID).

Answer: 2

Explanation:

1. For terminal cancer pain, morphine is not standardly withheld for a respiratory rate below 12.
2. The dose of morphine will be administered to the client unless specified otherwise by the healthcare provider.
3. For terminal cancer pain, the morphine may not be held with a respiratory rate below 12. Nonpharmacological interventions may also be implemented in conjunction with the morphine to help manage the pain.
4. NSAIDs are not used to relieve pain related to cancer. NSAIDs have antipyretic and anti-inflammatory effects. Nonpharmacological interventions may also be implemented in conjunction with the morphine to help manage the pain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.7 Initiate effective treatments to relieve pain and suffering in light of patient values, preferences and expressed needs. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 18-12 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for pain and for migraines.

MNL Learning Outcome: Examine drugs used for pain management.

30) The nurse is caring for a client with mild migraine headaches. Which medication should the nurse anticipate to be included in the client's treatment?

1. Ibuprofen
2. Sumatriptan (Imitrex)
3. Ergotamine (Ergostat)
4. Amitriptyline (Elavil)

Answer: 1

Explanation:

1. Nonsteroidal anti-inflammatory drugs are often effective for mild migraines.
2. Sumatriptan is a serotonin receptor agonist and is usually used only for moderate to severe migraines.
3. Ergotamine is an ergot alkaloid that is a serotonin receptor agonist. This medication is used only with moderate to severe migraines.
4. Amitriptyline is used to prevent migraines, not to reduce pain once they occur.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 18-11 Compare the pharmacotherapeutic approaches of preventing migraines with those of aborting migraines.

MNL Learning Outcome: Examine drugs used for pain management.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 19 Drugs for Local and General Anesthesia**

1) The nurse is preparing to discuss the classifications of local anesthetics. Which information should the nurse include in the discussion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Amides have fewer side effects than esters.
2. Amides are used to treat sunburn.
3. Amides are similar in structure to cocaine.
4. Amides tend to last longer than esters.
5. Amides are used for dental procedures.

Answer: 1, 4

Explanation:

1. Amides have largely replaced esters because they produce fewer side effects.
2. The ester benzocaine is used to treat sunburn.
3. Cocaine is a natural ester, not an amide.
4. Amides have largely replaced esters because they generally have a longer duration of action.
5. An ester is used for dental procedures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning  
Learning Outcome: 19-3 Describe differences between the two major classes of local anesthetics.  
MNL Learning Outcome: Examine drugs used for local and general anesthesia.

2) The nurse is preparing to assess a client in Stage 3 of general anesthesia. Which assessment findings should the nurse anticipate?

1. Irregular heart and respiratory rate
2. Loss of general sensation during consciousness and urinary incontinence
3. Temporary smooth muscle paralysis and increased blood pressure
4. Respiratory stabilization and slow eye movements

Answer: 4

Explanation:

1. The heart rate and breathing become irregular in Stage 2.
2. Loss of general sensation while still conscious occurs in Stage 1. Urinary incontinence is not identified as occurring during Stage 3 of general anesthesia.
3. Paralysis of the skeletal muscle occurs in Stage 3. Increased blood pressure can occur in Stage 2 of general anesthesia.
4. Stage 3 is characterized by relaxation of the skeletal muscles, stabilization of the cardiovascular and breathing activities, and decreased eye movements are slow.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-4 Identify the actions of general anesthetics on the central nervous system and identify the four stages of general anesthesia.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

3) The nurse teaches a client about a prescribed topical anesthetic. Which statement made by the client indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "This lotion should only be used on small areas of skin."
2. "I will wear gloves when I apply the lotion."
3. "This lotion will work well on cuts too."
4. "I will wash my hands before touching my eyes."
5. "I will be mindful of the expiration date on the prescription."

Answer: 1, 4, 5

Explanation:

1. Injury may result if topical anesthetics are applied to large areas of skin.
2. The nurse should wear gloves when applying topical anesthetics; this is not applicable to the client.
3. Topical anesthetics should be applied to intact skin only.
4. Topical anesthetics must be kept away from the eyes unless they are ophthalmic preparations.
5. Prescriptions should not be used past the expiration date.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

4) A client received a volatile liquid inhalation anesthetic agent. For which condition should the nurse monitor the client?

1. Hypertension
2. Pneumonia
3. Malignant hyperthermia
4. Increased intracranial pressure

Answer: 3

Explanation:

1. Hypotension is more likely to occur than hypertension.
2. Pneumonia specifically is not an immediate complication.
3. Malignant hyperthermia is rare, but it is fatal if not treated immediately.
4. Increased intracranial pressure is not a common adverse effect but can be treated.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-4 Identify the actions of general anesthetics on the central nervous system and identify the four stages of general anesthesia.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

5) A client receives succinylcholine (Anectine) as an anesthetic. For which response should the nurse assess the client?

1. Spontaneous bleeding
2. Respiratory paralysis
3. Anaphylactic shock
4. Delirium

Answer: 2

Explanation:

1. Spontaneous bleeding is not a complication related to succinylcholine.
2. Succinylcholine is a neuromuscular blocker that paralyzes muscles, including those of respiration.
3. Allergic reactions, such as anaphylactic shock, are uncommon with succinylcholine.
4. Delirium is not an adverse effect of succinylcholine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

6) The nurse is asked to explain the actions of succinylcholine (Anectine). Which information should the educator include?

1. "It causes the client to rapidly lose consciousness."
2. "It increases cardiac output by raising the heart rate."
3. "It interferes with impulse transmission, resulting in total anesthesia from the pain of surgery."
4. "It reduces the amount of general anesthetic needed for procedures."

Answer: 4

Explanation:

1. The client does not lose consciousness and is wide awake.
2. The heart rate is not increased.
3. The changes to impulse transmission do not result in pain control or anesthesia.
4. Succinylcholine does decrease the amount of general anesthetic needed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

7) A client is prescribed to receive a local anesthetic. For which reason should the nurse expect epinephrine to be added to the anesthetic?

1. Extends the duration of action of the local anesthetic.
2. Decreases the amount of pain experienced.
3. Promotes patient relaxation.
4. Promotes blood flow to the area.

Answer: 1

Explanation:

1. Epinephrine is often added to local anesthetics to constrict blood vessels and extend the duration of action of the drug.
2. Epinephrine does not decrease pain.
3. Epinephrine does not promote relaxation in the client.
4. The use of epinephrine results in vasoconstriction.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-2 Describe the mechanism of action of local anesthetics and explain why epinephrine and sodium bicarbonate are sometimes included in local anesthetic cartridges.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

8) The nurse in the operating room is reviewing a list of clients scheduled for surgery. For which client receiving an inhalation anesthesia should the nurse be most concerned?

1. A 15-year-old with type 1 diabetes
2. A 6-year-old with no chronic health problems
3. A 79-year-old with cardiac disease
4. A 55-year-old with a serious neck injury

Answer: 3

Explanation:

1. Adolescents are not at a high risk for an adverse reaction to inhalation anesthesia.
2. Children are more sensitive to inhalation anesthesia than adults, but a 6-year-old child that is healthy is not at high risk for an adverse reaction.
3. Older adults are more sensitive to the effects of inhalation anesthesia. Hypotension can occur and blood pressure should be carefully monitored.
4. Adults are not at a high risk for an adverse reaction to inhalation anesthesia. The use of this type of anesthesia is not contraindicated for the patient with a neck injury.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

9) The nurse is caring for a client in Stage 2 of general anesthesia. Which action should the nurse make a priority?

1. Assist the anesthesiologist in repositioning the client.
2. Complete the surgical scrub.
3. Keep the environment quiet and calm.
4. Insert the indwelling urinary catheter.

Answer: 3

Explanation:

1. It is not appropriate to reposition the client during Stage 2 of anesthesia.
2. It is not appropriate to complete the surgical scrub during Stage 2 of anesthesia.
3. The client is hyperexcitable in Stage 2 of anesthesia so the environment must be kept quiet to minimize stimulation.
4. It is not appropriate to insert an indwelling urinary catheter during Stage 2 of anesthesia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-4 Identify the actions of general anesthetics on the central nervous system and identify the four stages of general anesthesia.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

10) A pregnant client requiring a skin biopsy expresses concern about the anesthesia that will be administered. Which response should the nurse make?

1. "You will most likely have an epidural so there is no risk to your baby."
2. "There are newer general anesthetics available that are safe for your baby."
3. "You will most likely receive local anesthesia so this will not affect your baby."
4. "Inhalation anesthetics are safe because they remain in your lungs and will not affect the baby."

Answer: 3

Explanation:

1. Epidural anesthesia is not indicated in this situation.
2. There are no general anesthetics that are considered safe, and this client will most likely have local anesthesia.
3. Local anesthetics are most commonly used to remove lesions. They stay in the treatment area and do not impact the baby.
4. Inhalation anesthesia is not indicated in this situation and, even though it remains primarily in the lungs, it can affect the baby.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

11) The nurse is preparing education for a client who will receive anesthesia for a surgical procedure. Which statement should the nurse include in the teaching?

1. "If the inhaled agent is ineffective, an intravenous agent will be administered."
2. "An inhaled agent is used to induce sleep, followed by an intravenous agent for relaxation."
3. "Usually all that is required is an intravenous agent to induce sleep."
4. "An intravenous agent will be initially administered to induce sleep followed by an inhaled agent."

Answer: 4

Explanation:

1. Inhaled agents are administered after intravenous agents to maintain anesthesia.
2. An intravenous agent is used to induce sleep.
3. Clients require more anesthesia for general surgery than just intravenous anesthesia.
4. Intravenous agents are usually administered initially because they act within a few seconds.

After the client loses consciousness, inhaled agents are administered to maintain the effects of the anesthesia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 19-6 Identify the actions and adverse effects of inhaled general anesthetics.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

12) The nurse is preparing to assist a healthcare provider suture a laceration on a 2-year-old child. Prior to the procedure, which initial intervention should the nurse anticipate?

1. Wrapping the child in a blanket for restraint and safety during suturing
2. Applying a topical anesthetic prior to administering a local anesthetic with a needle
3. Administering a small dose of lorazepam (Ativan)
4. Requesting the parents to leave the room prior to the procedure

Answer: 2

Explanation:

1. Restraining the child is unnecessary.
2. The topical anesthetic will provide a decreased sensation in pain to the area that will require a local anesthetic prior to the repair of the laceration.
3. Lorazepam is not to be administered to a 2-year-old child.
4. The presence of parents usually decreases a child's anxiety and increases cooperation.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

13) A client with gastroesophageal reflux disease receives lidocaine viscous prior to an endoscopy. Which assessment should the nurse make a priority after the procedure?

1. Return of the gag reflex
2. Nausea and vomiting
3. Damage to the teeth or gums
4. Headache

Answer: 1

Explanation:

1. The gag reflex must be assessed before giving the client anything to eat or drink.
2. Nausea and vomiting are not common after an endoscopy.
3. Damage to the teeth or gums is rare following an endoscopy.
4. Headaches are not common after an endoscopy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate

assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process:

Assessment

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

14) The nurse is caring for a client in labor. Which type of local anesthesia should the nurse anticipate will be administered to the client?

1. Nerve block
2. Topical
3. Infiltration
4. Epidural

Answer: 4

Explanation:

1. A nerve block is not a form of anesthesia commonly used for clients during labor and delivery.
2. Topical anesthesia is not used to relieve the discomfort of a client in labor.
3. Infiltration is not a form of anesthesia used for a client in labor.
4. Anesthesia via the epidural route is the most common for a client in labor.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-1 Compare and contrast the three primary methods of local anesthetic administration.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

15) The nurse is asked to explain how local anesthetics work. Which response should the nurse make?

1. Enhance the influx of calcium into the cell.
2. Occupy potassium receptors.
3. Increase nerve impulse transmission.
4. Block the sodium channels.

Answer: 4

Explanation:

1. Local anesthetics do not alter the flow of calcium in the cells.
2. Local anesthetics do not affect potassium receptors.
3. Local anesthetics work by reducing motor and sensory impulse transmission.
4. Local anesthetics work by blocking the sodium channels resulting in diminished motor and sensory impulse transmission.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

16) The nurse is reviewing local anesthetics available for a client's procedure. Which local anesthetic agent should the nurse recognize has the lowest rate of adverse effects?

1. Tetracaine (Pontocaine)
2. Procaine (Novocain)
3. Lidocaine (Xylocaine)
4. Chlorprocaine (Nesacaine)

Answer: 3

Explanation:

1. Tetracaine is classified as an ester, which has more side effects than an amide.
2. Procaine is classified as an ester, which has more side effects than an amide.
3. Lidocaine is classified as an amide, and amides produce fewer side effects than do esters.
4. Chlorprocaine is classified as an ester, which has more side effects than an amide.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-3 Describe differences between the two major classes of local anesthetics.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

17) The nurse is preparing to assist with the repair of a laceration on a client with a history of a cardiovascular disorder. Which anesthesia should the nurse anticipate being prescribed?

1. Benzocaine
2. Lidocaine
3. Lidocaine gel
4. Lidocaine with epinephrine

Answer: 2

Explanation:

1. Benzocaine is not used for the repair of lacerations.
2. Lidocaine is an appropriate anesthetic to use to repair a laceration.
3. Lidocaine gel is not used in the repair of a laceration.
4. Epinephrine extends the time anesthesia is present because it causes vasoconstriction, which slows the rate of distribution. However, it is not necessary for effective anesthesia and is contraindicated in those with severe cardiovascular disorders.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-1 Compare and contrast the three primary methods of local anesthetic administration.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

18) The nurse is observing a client receiving general anesthesia. Which observation should the

nurse expect to assess in this client?

1. A sleeping state that can be awakened easily
2. An unconscious state, without analgesia
3. A total loss of body movements
4. A conscious but sleepy state of being

Answer: 3

Explanation:

1. Easy awakening is not a condition of general anesthesia.
2. Signs of general anesthesia include total analgesia.
3. Signs of general anesthesia include total analgesia, loss of consciousness, memory, and body movements.
4. Signs of general anesthesia include loss of consciousness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-4 Identify the actions of general anesthetics on the central nervous system and identify the four stages of general anesthesia.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

19) A client asks why intravenous (IV) anesthesia is used before inhaled anesthesia for a surgical procedure. Which response should the nurse make?

1. "The IV anesthesia will produce a rapid unconsciousness."
2. "The IV anesthesia is easier to reverse if adverse effects occur."
3. "The IV is used to administer large amounts of solutions required by the anesthesia."
4. "The IV is used to administer a volatile liquid that will help maintain a deep sleep."

Answer: 1

Explanation:

1. The IV anesthesia is usually administered first because it acts within seconds.
2. IV anesthesia is not given prior to inhaled anesthesia because it is easier to reverse. Inhaled anesthesia enhances the effect of IV anesthesia.
3. The administration of IV anesthesia has no relation to the amount of IV solution that is to be administered.
4. Volatile liquids are inhaled gases.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-5 Identify the actions and adverse effects of IV general anesthetics.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

20) A client is given general anesthesia for a surgical procedure. Which outcome should the nurse

expect when assessing this client?

1. The client is unconscious, with arm and leg movement.
2. The client is unresponsive to pain and is unable to breathe spontaneously.
3. The client is unconscious with slow eye movements.
4. The client loses sensation but remains awake.

Answer: 3

Explanation:

1. Surgical anesthesia involves loss of voluntary movement.
2. A loss of the respiratory drive reflects Stage 4 of anesthesia and is not a desirable state prior to a surgical procedure.
3. Surgical anesthesia occurs in Stage 3, when the client is unconscious, relaxed, eye movement has decreased, and vital signs have stabilized.
4. Surgical anesthesia includes loss of consciousness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-4 Identify the actions of general anesthetics on the central nervous system and identify the four stages of general anesthesia.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

21) A client is having general anesthesia for a surgical procedure. For which reason should the nurse expect the client to receive a neuromuscular blocking agent?

1. Potentiates analgesic effects.
2. Prevents adverse effects associated with inhaled gases.
3. Induces total skeletal muscle relaxation.
4. Induces unconsciousness.

Answer: 3

Explanation:

1. Neuromuscular blocking agents do not potentiate analgesia.
2. Neuromuscular blocking agents will result in a decreased number of anesthetics required, which can reduce adverse effects, but this is not the primary reason they are used.
3. The primary purpose of administering neuromuscular blocking agents is to induce total skeletal muscle relaxation.
4. Neuromuscular blocking agents do not induce unconsciousness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

22) A client is given midazolam (Versed) prior to receiving general anesthesia. Which effect should the nurse expect to assess in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Effects consistent with those observed with other benzodiazepines
2. Reduction of anxiety and stress associated with surgery
3. Central nervous system depression and skeletal muscle relaxation
4. Maintenance of stable cardiac and respiratory activity
5. Absent cardiac dysrhythmias

Answer: 1, 2, 3

Explanation:

1. Benzodiazepines, which include midazolam, can produce serious cardiovascular side effects, including hypotension, tachycardia, and cardiovascular collapse as well as laryngospasm.
2. Midazolam reduces anxiety and stress associated with surgery.
3. Midazolam produces central nervous system depression and skeletal muscle relaxation.
4. Midazolam is not associated with maintaining stable cardiac and respiratory activity.
5. Midazolam does not prevent cardiac dysrhythmias.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

23) A client scheduled for surgery is going to receive balanced anesthesia. Which drug should the nurse anticipate being included in this approach?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Benzodiazepines
2. Neuromuscular blockers
3. Inhaled anesthetics
4. Proton-pump inhibitors
5. Intravenous anesthetics

Answer: 1, 2, 3, 5

Explanation:

1. Benzodiazepines reduce anxiety, produce central nervous system depression, and relax skeletal muscle.
2. Neuromuscular blockers provide skeletal muscle relaxation, which is an important component of general anesthesia.
3. Inhaled agents are used to maintain an anesthetized state.
4. Proton-pump inhibitors are not used in balanced anesthesia.
5. Intravenous anesthetics relax muscles, diminish pain, and produce sleep.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

24) A client asks why preoperative medications are used. Which information should the nurse include in the response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Reduce anxiety and facilitate sedation
2. Facilitate a faster recovery
3. Reduce the risk of aspiration pneumonia
4. Reduce the risk of a postoperative ileus
5. Manage pain

Answer: 1, 3, 5

Explanation:

1. Benzodiazepines or short-acting barbiturates are used to reduce anxiety and facilitate sedation.
2. Preoperative adjuncts are not associated with a faster recovery.
3. Preoperative adjunct medications such as histamine-2 receptor agonists or anticholinergics are used to reduce the risk of aspiration pneumonia.
4. Preoperative adjuncts are not associated with a reduced risk of a postoperative ileus.
5. Preoperative adjuncts help to reduce pain that will be felt after surgery.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 19-8 Categorize drugs used before, during, and after anesthesia based on their classification and drug action.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

25) The nurse reviews the medication history for a client scheduled for an operative procedure that will require the administration of succinylcholine (Anectine). Which medication should the nurse find most concerning?

1. St. John's wort
2. Diazepam
3. Acetaminophen
4. Citalopram

Answer: 2

Explanation:

1. There is no known interaction between St. John's wort and succinylcholine.
2. The effect of succinylcholine is decreased if given with diazepam.
3. There is no known interaction between acetaminophen and succinylcholine.
4. There is no known interaction between citalopram and succinylcholine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

26) A client with a history of severe arteriosclerosis requires a repair of a laceration. Which property contained in a local anesthetic should the nurse recognize is safe to administer to the client?

1. Epinephrine
2. Sodium bicarbonate
3. Benzocaine
4. Proparacaine (Alcaine)

Answer: 2

Explanation:

1. Local anesthetics with epinephrine are not typically used for clients with cardiac diseases.
2. Sodium bicarbonate is often used to neutralize the affected area and allow the anesthetic to work better.
3. Benzocaine is not a property that is contained in a local anesthetic used to repair a laceration.
4. Proparacaine is used for ocular procedures.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-2 Describe the mechanism of action of local anesthetics and explain why epinephrine and sodium bicarbonate are sometimes included in local anesthetic cartridges.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

27) The nurse instructs a client prescribed viscous lidocaine for oral ulcerations. Which statement made by the client indicates further teaching is necessary?

1. "I should not use a mouthwash after using this medication."
2. "I will not chew or eat anything until I regain feeling."
3. "I will swish the medication around my mouth before spitting it out."
4. "I can drink some water after I swallow the medication."

Answer: 4

Explanation:

1. Mouthwash may decrease the effect of the medication and further irritate the mucosal tissue.
2. Injury may occur if the client chews or eats anything prior to regaining sensation in the mouth.
3. The client should swish the solution and then spit it out.
4. The client should not swallow the medication unless otherwise directed by the healthcare provider.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

28) A client is having a procedure requiring the use of a local anesthetic. Which anatomical area should be avoided when administering lidocaine with epinephrine?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cheek
2. Earlobe
3. Tip of the nose
4. Top of the foot
5. Fingertip

Answer: 2, 3, 5

Explanation:

1. Lidocaine with epinephrine can be used to repair a laceration on the cheek.
2. Epinephrine causes a decrease in blood flow and should not be used in repair of areas with decreased blood flow, such as the earlobe.
3. Epinephrine causes a decrease in blood flow and should not be used in repair of areas with decreased blood flow, such as the tip of the nose.
4. Lidocaine with epinephrine can be used to repair a laceration on the top of the foot.
5. Epinephrine causes a decrease in blood flow and should not be used in repair of areas with decreased blood flow, such as a fingertip.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

29) A client is suspected to have been overdosed with propofol (Diprivan). Which immediate nursing action is indicated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase the intravenous fluid rate.
2. Monitor the client for development of an allergic skin reaction.
3. Monitor the client for respiratory depression.
4. Obtain serum calcium levels.
5. Administer a benzodiazepine.

Answer: 1, 3

Explanation:

1. Treatment for an overdose of propofol includes increasing the intravenous fluid rate.
2. An allergic skin reaction is uncommon and does not require immediate action.
3. Propofol causes respiratory depression. Close monitoring is indicated.
4. Propofol does not affect calcium levels.
5. Administering a benzodiazepine would increase the risk of respiratory depression.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

30) A client having a surgical procedure is going to receive isoflurane (Forane). For which client statement should the nurse contact the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I stopped taking my vitamin C supplement last week because it upset my stomach."
2. "I don't think my St. John's wort is helping my depression."
3. "I have not eaten anything since before my CT scan yesterday."
4. "My sibling ran a high fever and had seizures after surgery."
5. "My last dose of levodopa was yesterday."

Answer: 2, 4

Explanation:

1. Vitamin C therapy is not contraindicated with the use of isoflurane.
2. St. John's wort should be discontinued 2—3 weeks prior to administration of isoflurane due to possible risk of hypotension.
3. NPO prior to surgery is a standard treatment.
4. High fever and seizures may indicate the family member experienced malignant hyperthermia. There is a genetic association with malignant hyperthermia. This requires further investigation.
5. Levodopa should be discontinued 6—8 hours prior to administering isoflurane.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 19-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with anesthetic agents.

MNL Learning Outcome: Examine drugs used for local and general anesthesia.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 20 Drugs for Degenerative Diseases of the Nervous System**

1) The nurse is preparing client education on degenerative diseases of the nervous system. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Amyotrophic lateral sclerosis
2. Multiple sclerosis
3. Alzheimer disease
4. Myasthenia Gravis
5. Parkinson disease

Answer: 1, 2, 3, 5

Explanation:

1. Amyotrophic lateral sclerosis is a degenerative disease of the nervous system.
2. Multiple sclerosis is a degenerative disease of the central nervous system.
3. Alzheimer disease is one of the most common diseases of the central nervous system.
4. Myasthenia gravis is an autoimmune neuromuscular disease.

5. Parkinson disease is a degenerative disease of the central nervous system.

Page Ref: 260

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 20-1 Identify the most common degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

2) A client with Parkinson disease asks how medications will help with the symptoms. Which response should the nurse provide?

1. "The medication will help prevent muscle wasting."
2. "The medication will increase your appetite and energy."
3. "The medication will balance serotonin and acetylcholine in your brain."
4. "The medication will help you to eat and walk."

Answer: 4

Explanation:

1. The medication does not prevent muscle wasting.
2. The medication does not increase appetite or energy.
3. The medication helps restore balance between dopamine, not serotonin or acetylcholine.
4. The goal of pharmacotherapy for Parkinson disease is to increase the ability of the client to perform activities of daily living such as walking, eating, dressing, and bathing.

Page Ref: 261

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 20-3 Explain the neurochemical basis for Parkinson disease, focusing on the roles of dopamine and acetylcholine in the brain.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

3) The nurse is teaching a client about the characteristics of Alzheimer disease. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. More women than men have Alzheimer disease.
2. The disease is characterized by the degeneration of the neurons.
3. Chronic inflammation of the brain may be a cause of the disease.
4. The disease mainly affects people over 50 years of age.

Answer: 3

Explanation:

1. Alzheimer disease is not more prevalent in women.
2. Parkinson disease is characterized by the degeneration of neurons.
3. Chronic inflammation and excess free radicals may cause neuron damage and contribute to Alzheimer disease.
4. The disease mainly affects patients over 65 years of age.

Page Ref: 266

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 20-5 Describe symptoms of Alzheimer disease and explain theories about why these symptoms develop.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

4) The nurse is planning the care for a client with Parkinson disease. Which intervention should the nurse perform?

1. Monitor the client for the ability to chew and swallow.
2. Check peripheral circulation for thrombophlebitis.
3. Monitor the client for psychotic symptoms.
4. Limit exercise to decrease the possibility of fractures.

Answer: 1

Explanation:

1. In Parkinson disease, muscle function is lost and the client's ability to chew and swallow to prevent aspiration becomes a safety issue.
2. Thrombophlebitis is not related to Parkinson disease.
3. Psychosis is possible; however, this is not the primary concern.
4. Activity is important to maintain as much muscle tone as possible and should not be limited.

Page Ref: 261

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-2 Describe symptoms of Parkinson disease.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

5) The nurse is caring for an older adult prescribed benztropine (Cogentin). For which adverse effect should the nurse monitor the patient?

1. Confusion
2. Bradycardia
3. Diarrhea
4. Agitation

Answer: 1

Explanation:

1. In older adults, benztropine may produce confusion, delusions, and hallucinations.
2. Tachycardia is an adverse effect of benztropine.
3. Constipation is an adverse effect of benztropine.
4. Sedation is an adverse effect of benztropine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. |

Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 20-4 Describe the nurse's role in the pharmacologic management of Parkinson disease and Alzheimer disease.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

6) The nurse is caring for a client with Parkinson disease. For which assessment finding should the

nurse withhold a dose of benztropine (Cogentin) and notify the healthcare provider?

1. A respiratory rate of 14
2. A pulse of 112
3. Blood pressure of 142/80 mmHg
4. A temperature of 100.2°F

Answer: 2

Explanation:

1. A respiratory rate of 14 is a normal finding.
2. Benztropine (Cogentin) can cause tachycardia.
3. Hypotension is an adverse effect of benztropine (Cogentin).
4. An elevated temperature is not a contraindication to the administration of benztropine (Cogentin).

Page Ref: 265

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

7) The nurse is reviewing the medication history for a client receiving levodopa (Stalevo). Which routine medication should cause the nurse to be concerned?

1. Aspirin
2. Metformin
3. Calcium antacid
4. Synthroid

Answer: 3

Explanation:

1. Aspirin does not adversely interact with levodopa.
2. Metformin does not adversely interact with levodopa.
3. Calcium antacids can decrease the therapeutic effect of levodopa.
4. Synthroid does not adversely interact with levodopa.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

8) The nurse is caring for a client taking levodopa (Stalevo). Which assessment finding should cause the nurse the most concern?

1. Hypertension
2. Diarrhea
3. Muscle twitching
4. Dark urine

Answer: 3

Explanation:

1. Hypotension, not hypertension, is possible with levodopa, carbidopa, and entacapone (Stalevo).
2. Constipation, not diarrhea, is a side effect of levodopa, carbidopa, and entacapone (Stalevo).
3. Muscle twitching may indicate toxicity.
4. Dark urine is a normal finding associated with this medication.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

9) The nurse is preparing teaching for a client prescribed carbidopa (Sinemet). Which information should the nurse include?

1. Avoid drinking caffeinated beverages.
2. Take the medication with meals.
3. Take the medication on an empty stomach.
4. Take the medication with a protein food.

Answer: 3

Explanation:

1. There is no significant relationship between caffeine and Levodopa and carbidopa (Sinemet).
2. Levodopa and carbidopa (Sinemet) should not be taken with meals; this will decrease absorption.
3. Levodopa and carbidopa (Sinemet) should be taken on an empty stomach for better absorption.
4. Levodopa and carbidopa (Sinemet) should not be taken with a protein food; this will decrease absorption.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 20-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

10) The nurse is teaching the family member of a client with Alzheimer disease. Which information should the nurse include in the discussion?

1. "The medication may help with the symptoms for a little while."
2. "The medication may have serious side effects if used for a long time."
3. "Symptoms will improve as long as the medication is taken regularly."
4. "Symptoms should begin improving within a few days."

Answer: 1

Explanation:

1. The medication can only slow the progression of the disease.
2. The medication is not usually prescribed over a long period of time.
3. Improvement with medication usually only lasts for several months.
4. It takes a minimum of 1-4 weeks to begin to see improvement.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 20-5 Describe symptoms of Alzheimer disease and explain theories about why these symptoms develop.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

11) The nurse is preparing to assess a client with multiple sclerosis. Which assessment finding should the nurse anticipate?

1. Skeletal muscle atrophy
2. Tremors
3. Visual disturbances
4. Muscle rigidity

Answer: 3

Explanation:

1. Skeletal muscle atrophy is associated with amyotrophic lateral sclerosis.
2. Tremors are associated with Parkinson disease.
3. Visual disturbances are associated with multiple sclerosis.
4. Muscle rigidity is associated with Parkinson disease.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment Learning Outcome: 20-7 Describe the signs and basis for development of multiple sclerosis symptoms.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

12) The nurse instructs a client about levodopa (Stalevo). Which statement made by the client

indicates teaching was effective?

1. "I will increase the intake of vitamin B<sub>6</sub> in my diet."
2. "I will weigh myself weekly."
3. "I will increase the protein in my diet."
4. "I will notify my healthcare provider if my urine darkens."

Answer: 2

Explanation:

1. Vitamin B<sub>6</sub> decreases the absorption of levodopa.
2. The client should be instructed to weigh themselves weekly to assess the effect of their dietary intake.
3. Absorption of levodopa is decreased with high-protein meals.
4. Darkened urine is an expected finding for a client taking levodopa.

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Cognitive Level: Analyzing

Client Need/Sub: Psychological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 20-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

13) A client is prescribed trihexyphenidyl (Artane). Which assessment finding should the nurse report to the healthcare provider?

1. Dry mouth
2. Anorexia
3. Hypertension
4. Loss of balance

Answer: 4

Explanation:

1. Dry mouth is a common side effect of trihexyphenidyl that is not necessary to report.
2. Anorexia is not a side effect of trihexyphenidyl.
3. Hypertension is not a side effect of trihexyphenidyl.
4. Loss of balance is a serious side effect that must be reported to the healthcare provider.

Page Ref: 265

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 20-4 Describe the nurse's role in the pharmacologic management of Parkinson disease and Alzheimer disease.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

14) The nurse is caring for a client suspected of overdosing on donepezil (Aricept). Which medication should the nurse prepare to administer?

1. Physostigmine
2. Epinephrine
3. Atropine
4. Gastric lavage with charcoal

Answer: 3

Explanation:

1. Physostigmine is used to reverse the symptoms of anticholinergic intoxication.
2. Epinephrine is used to treat anaphylactic reactions.
3. Anticholinergics such as atropine may be used as an antidote for a donepezil overdose.
4. Gastric lavage is prescribed to treat a levodopa overdose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

15) A client asks why glatiramer (Copaxone) is prescribed. Which response should the nurse

make?

1. Stimulates the production of neurons.
2. Stimulates the growth of myelin.
3. Inhibits the destruction of myelin.
4. Reduces the creation of new brain lesions.

Answer: 4

Explanation:

1. Glatiramer does not stimulate the production of neurons.
2. Glatiramer does not stimulate the growth of myelin.
3. Glatiramer does not inhibit the destruction of myelin.
4. Glatiramer is a synthetic protein that stimulates myelin basic protein, which is an essential part of the nerve's myelin coating. Because glatiramer resembles myelin, it is thought to curb the body's attack of the myelin covering and reduce the creation of new brain lesions.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

16) A client with multiple sclerosis (MS) asks how dalfampridine (Ampyra) helps with the condition. Which response should the nurse provide?

1. "Dalfampridine will lessen the cognitive deficits that occur with MS."
2. "Dalfampridine will decrease the number of mood alterations."
3. "The medication will disrupt the visual disturbances that occur with MS."
4. "The medication will improve your ability to walk."

Answer: 4

Explanation:

1. Dalfampridine is not prescribed to lessen the cognitive deficits that occur with MS.
2. Dalfampridine is not prescribed to decrease the number of mood alterations.
3. Dalfampridine is not prescribed to disrupt the visual disturbances that occur with MS.
4. Dalfampridine is the first oral drug approved by the Food and Drug Administration that addresses walking impairment in clients diagnosed with MS.

Page Ref: 271

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

17) The nurse is caring for a client with Parkinson disease. Which should the nurse understand is the action of the pharmacotherapy used to treat the condition?

1. Increase the amount of dopamine and reduce the amount of acetylcholine.
2. Increase the amount of dopamine and acetylcholine.
3. Reduce the amount of dopamine and increase the amount of acetylcholine.
4. Reduce the amount of dopamine and acetylcholine.

Answer: 1

Explanation:

1. Parkinson disease results in the death of neurons that produce dopamine. The balance is restored by increasing the levels of dopamine or by inhibiting the excitatory actions of acetylcholine.
2. Parkinson disease results in the death of neurons that produce dopamine. Due to the imbalance, dopamine is provided (levodopa) and anticholinergics can be administered as well. Acetylcholine is not increased.
3. Pharmacological treatment of Parkinson disease is not intended to reduce the amount of dopamine; it is intended to restore the balance between dopamine and acetylcholine.
4. Pharmacological treatment of Parkinson disease is not intended to reduce the amount of dopamine or acetylcholine.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-3 Explain the neurochemical basis for Parkinson disease, focusing on the roles of dopamine and acetylcholine in the brain.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

18) A client with Parkinson disease is prescribed levodopa. For which reason should the nurse expect this medication to be effective?

1. Crosses the blood—brain barrier
2. Has fewer adverse effects
3. Less risk for addiction
4. Can be administered intravenously

Answer: 1

Explanation:

1. Parkinson disease is a degenerative disorder of the central nervous system caused by death of neurons that produce the brain neurotransmitter dopamine. Levodopa can cross the blood—brain barrier, which results directly in dopamine synthesis.
2. Levodopa does not have fewer side effects.
3. There is no risk for addiction from levodopa or other pharmacological agents used to treat Parkinson disease.
4. Levodopa is not administered intravenously.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

19) The nurse is caring for a client with Alzheimer disease. Which statement best describes the contributing factor to the structural change that occurs in the brain of a client with this condition?

1. Increases in acetylcholine levels
2. Increases in blood pressure and cholesterol levels
3. Chronic inflammation and oxidative cellular damage
4. Cerebral bleeding and associated hypoxia

Answer: 3

Explanation:

1. Acetylcholine levels are not increased in Alzheimer disease.
2. Blood pressure and cholesterol levels are not identified as contributing factors to Alzheimer disease.
3. Alzheimer disease is characterized by amyloid plaques and neurofibrillary tangles that most likely occur from chronic inflammation or oxidative cellular damage.
4. Cerebral bleeding and associated hypoxia are not identified as contributing factors to Alzheimer disease.

Page Ref: 266

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-5 Describe symptoms of Alzheimer disease and explain theories about why these symptoms develop.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

20) A client is newly diagnosed with Alzheimer disease. Which medication should the nurse anticipate being prescribed for this client?

1. Levodopa (Larodopa)
2. Haloperidol (Haldol)
3. Benztropine mesylate (Cogentin)
4. Donepezil (Aricept)

Answer: 4

Explanation:

1. Levodopa is prescribed for Parkinson disease.
2. Haloperidol can be prescribed in some cases of Alzheimer disease but, due to the adverse effects, it is infrequently prescribed.
3. Benztropine mesylate is used for Parkinson disease.
4. Donepezil is a cholinesterase inhibitor most frequently prescribed for Alzheimer disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-6 Explain the goals of pharmacotherapy for Alzheimer disease and the efficacy of existing medications.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

21) A client with Alzheimer disease is prescribed a cholinesterase inhibitor. Which statement describes the purpose of this medication?

1. Reverses the structural damage within the brain.
2. Increases synthesis of acetylcholine.
3. Increases enzymatic breakdown leading to increased neuronal production.
4. Intensifies the effect of acetylcholine at the receptor.

Answer: 4

Explanation:

1. Currently there is no pharmacological agent that can reverse the structural damage associated with Alzheimer disease.
2. Cholinesterase inhibitors do not increase acetylcholine synthesis or enzymatic breakdown.
3. Cholinesterase inhibitors do not increase enzymatic breakdown.
4. Cholinesterase inhibitors intensify the effect of acetylcholine at the receptor.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-6 Explain the goals of pharmacotherapy for Alzheimer disease and the efficacy of existing medications.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

22) The nurse is preparing education for a caregiver of a client with Alzheimer disease. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Glutameric inhibitors are the most common class of drugs for treating Alzheimer disease.
2. Depression and aggressive behavior are common with the disease.
3. Memory difficulties are an early symptom of the disease.
4. Chronic inflammation of the brain can be a causative factor in the condition.
5. Pharmacologic therapies are given to help improve memory in Alzheimer disease.

Answer: 2, 3, 4, 5

Explanation:

1. Glutameric inhibitors are not the most common class of drugs for treating Alzheimer disease.
2. Depression and aggressive behavior are common symptoms of the disease.
3. Memory difficulties are an early symptom of Alzheimer disease.
4. It is suspected that chronic inflammation and excess free radicals can cause neuron damage and contribute to the disease.
5. The cholinesterase inhibitors are the most widely used class of drugs for treating the disease. These drugs work by increasing the availability of acetylcholine. Acetylcholine is involved in cognition, memory, and learning.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 20-6 Explain the goals of pharmacotherapy for Alzheimer disease and the efficacy of existing medications.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

23) The nurse is preparing to assess a client with amyotrophic lateral sclerosis (ALS). Which assessment finding should the nurse anticipate?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Muscle weakness
2. Muscle atrophy
3. Mood alterations
4. Slow, shuffling gait
5. Abnormal posture

Answer: 1, 2

Explanation:

1. Muscle weakness is associated with ALS.
2. Muscle atrophy is associated with ALS.
3. Mood alterations are associated with conditions such as multiple sclerosis.
4. Slow, shuffling gait is associated with Parkinson disease.
5. Abnormal posture is associated with Parkinson disease.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-1 Identify the most common degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

24) The nurse is preparing to assess a client with Parkinson disease. Which finding should the nurse recognize interferes with the client's ability to control hand movements?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Pill rolling
2. Tremor
3. Stooped posture
4. Lack of arm swing
5. Difficulty bending the arms

Answer: 1, 2

Explanation:

1. Pill rolling is a common behavior in progressive Parkinson disease in which the client rubs the thumb and forefinger together in a circular motion resembling the motion of rolling a tablet between two fingers.
2. The hands develop a palsy-like continuous motion or shaking when at rest.
3. A stooped posture would not influence the client's ability to control hand movements.
4. A lack of arm swing does not influence the client's ability to control hand movements.
5. Difficulty bending the arms does not influence the client's ability to control hand movements.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-2 Describe symptoms of Parkinson disease.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

25) A client with Parkinson disease is experiencing an increase in bradykinesia. Which assessment finding should the nurse anticipate?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Slow speech
2. Difficulty chewing
3. Shuffling the feet when walking
4. Stooped posture
5. Lack of facial expression

Answer: 1, 2, 3

Explanation:

1. Slow speech is a manifestation of bradykinesia.
2. Difficulty chewing is a manifestation of bradykinesia.
3. Shuffling the feet when walking is a manifestation of bradykinesia.
4. Stooped posture is not a manifestation of bradykinesia.
5. Lack of facial expression is not a manifestation of bradykinesia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 20-2 Describe symptoms of Parkinson disease.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

26) The nurse prepares teaching for a client prescribed alemtuzumab (Lemtrada) for progressive multiple sclerosis. Which information should the nurse include in the education?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Monitoring for hypertension
2. Evaluation of a complete blood count (CBC)
3. Requirement of two doses of treatment 12 months apart
4. Dietary decrease of protein and vitamin B<sub>6</sub>
5. Intravenous administration of prescription

Answer: 2, 3, 5

Explanation:

1. Alemtuzumab is not associated with the development of hypertension.
2. A CBC should be obtained prior to treatment and during treatment. The treatment places the client at risk for cytopenias including pancytopenia.
3. Two infusions of the medication will be administered 12 months apart.
4. It is not necessary to decrease dietary intake of protein and vitamin B<sub>6</sub>.
5. The medication is administered intravenously.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 20-8 Categorize drugs used in the treatment of Alzheimer disease, Parkinson disease, and multiple sclerosis based on their classification and mechanism of action.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

27) A client is newly diagnosed with multiple sclerosis (MS). For which reason should the nurse anticipate medication to be prescribed for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Modifies the progression of the disease.
2. Treats acute exacerbations.
3. Manages symptoms.
4. Cures the disease.
5. Remyelinates nerve fibers.

Answer: 1, 2, 3

Explanation:

1. Pharmacologic therapy for MS is intended to help modify the progression of the disease.
2. Pharmacologic therapy for MS is intended to treat acute exacerbations of the disease.
3. Pharmacologic therapy for MS is intended to help manage the symptoms of the disease.
4. Pharmacologic therapy cannot cure MS.
5. Pharmacologic therapy cannot cause remyelination of the nerve fibers.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-8 Categorize drugs used in the treatment of Alzheimer disease, Parkinson disease, and multiple sclerosis based on their classification and mechanism of action.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

28) A client receiving pharmacotherapy for the treatment of Parkinson disease has experienced increased eye-twitching tremors. Which treatment intervention should the nurse anticipate?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase the dosage of the medication
2. Change the interval between the doses of the medication
3. Change the route of administration of the medication
4. Schedule a drug holiday
5. Implement an adjunctive medication

Answer: 1, 2, 5

Explanation:

1. These symptoms may indicate a wearing-off has occurred. The dosage of the medication may need to be increased.
2. These symptoms may indicate a wearing-off has occurred. The timing of administration of the medication may need to be changed.
3. The route of administration will not be changed.
4. Scheduled drug holidays are not used for clients with Parkinson disease.
5. These symptoms may indicate a wearing-off time has occurred. There may be a need to implement an adjunctive medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 20-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

29) The nurse instructs a client who is prescribed a new medication for Parkinson disease. Which statement made by the client indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I guess I will have to give up eating my wife's banana pudding."
2. "I should add some wheat germ to my breakfast cereal."
3. "I should add olive oil to the salads I eat at noon each day."
4. "I will most likely have to become a vegetarian."
5. "I will take my medication on an empty stomach."

Answer: 1, 5

Explanation:

1. Bananas are high in vitamin B<sub>6</sub> and should be avoided when taking these medications.
2. Wheat germ and fortified cereals should be avoided when taking these medications.
3. Olive oil is not prohibited, but green vegetables should be limited.
4. The client does not need to follow a vegetarian diet but should reduce meat intake.
5. These medications should be taken on an empty stomach.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 20-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for degenerative diseases of the central nervous system.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

30) A client who takes benztropine (Cogentin) has developed constipation. Which intervention should the nurse implement?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Instruct the client to administer an enema.
2. Encourage the client to take docusate (Colace) daily.
3. Instruct the client to increase their fluid intake.
4. Encourage the client to walk daily.
5. Instruct the client to discontinue the medication until bowel function returns to normal.

Answer: 3, 4

Explanation:

1. The client should not be instructed to administer an enema unless prescribed by the healthcare provider.
2. Docusate (Colace) is contraindicated when benztropine (Cogentin) is taken.
3. Increasing fluid intake is recommended to treat constipation.
4. Exercise is recommended to treat constipation.
5. The client should not stop taking the medication.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 20-9 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for degenerative diseases of the nervous system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 21 Drugs for Muscle Spasms and Spasticity**

1) The nurse is caring for a client with a neuromuscular disorder. Which information should the nurse include when teaching the client about body movement?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Body movement depends on an intact spinal cord.
2. Body movement depends on proper functioning of muscles.
3. Body movement depends on intact nerves.
4. Body movement depends on proper endocrine functioning.
5. Body movement depends on intact joints.

Answer: 2, 3, 5

Explanation:

1. Body movement does not depend on an intact spinal cord as portions of the body move even if the spinal cord is damaged.
2. Body movement depends on proper functioning of muscles.
3. Body movement depends on intact nerves.
4. Body movement does not depend on proper endocrine functioning.

5. Body movement depends on intact joints.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 21-1 Identify the different body systems contributing to muscle movement.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

2) The nurse is teaching a client with a neuromuscular disorder about the nonpharmacological treatment of muscle spasms. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Application of heat or cold
2. Ultrasound
3. Massage
4. Relaxation techniques
5. Guided imagery

Answer: 1, 2, 3

Explanation:

1. Nonpharmacological treatment of muscle spasms includes application of heat or cold.
2. Nonpharmacological treatment of muscle spasms includes ultrasound.
3. Nonpharmacological treatment of muscle spasms includes massage.
4. Relaxation techniques are not a type of nonpharmacological treatment for muscle spasms.
5. Guided imagery is not a nonpharmacological treatment for muscle spasms.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 21-2 Discuss pharmacologic and nonpharmacologic therapies used to treat muscle spasms and spasticity.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

3) The nurse is planning care for a client with a neuromuscular disorder. Which goal should the nurse identify for the use of pharmacotherapy in the treatment of this condition?

1. Stop the client's muscle spasms
2. Improve appearance
3. Promote the ease of exercise
4. Promote independence

Answer: 4

Explanation:

1. Stopping muscle spasms can be achieved, but this is not the primary goal.
2. Improving the client's appearance is not a primary goal.
3. Promoting the ease of exercise is not a primary goal.
4. The therapeutic goals for the use of pharmacotherapy in the treatment of neuromuscular disorders is to promote independence by minimizing pain and discomfort, increasing the range of motion, and improving the client's ability to function.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-3 Explain the goals of pharmacotherapy with skeletal muscle relaxants.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

4) A client is taking dantrolene (Dantrium). Which laboratory result is a priority for the nurse to assess?

1. Creatinine clearance
2. Serum amylase
3. Hemoglobin and hematocrit
4. Aspartate aminotransferase (AST) and alanine aminotransferase (ALT)

Answer: 4

Explanation:

1. Dantrolene (Dantrium) does not significantly affect renal function; the creatinine clearance test is not a priority laboratory test to assess.
2. Dantrolene (Dantrium) does not affect pancreatic function; the serum amylase is not a priority laboratory test to assess.
3. Dantrolene (Dantrium) does not affect hemoglobin or hematocrit; these laboratory tests are not a priority to assess.
4. Dantrolene (Dantrium) can cause hepatitis; the aspartate aminotransferase (AST) and alanine aminotransferase (ALT) are the priority laboratory tests for the nurse to assess.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

5) A client is experiencing muscle discomfort resulting from weightlifting. Which medication should the nurse anticipate will be included in the treatment?

1. Baclofen (Lioresal)
2. Clonazepam (Klonopin)
3. Ibuprofen
4. Clonidine (Catapres)

Answer: 3

Explanation:

1. Baclofen is a skeletal muscle relaxant and is not the first-line treatment for minor to moderate pain due to muscle overexertion.
2. Clonazepam is a benzodiazepine and is not the first-line treatment for minor to moderate pain due to muscle overexertion.
3. Ibuprofen is a nonsteroidal anti-inflammatory that is the first-line of treatment for minor to moderate pain due to muscle overexertion.
4. Clonidine is an imidazoline that is not the first-line treatment for minor to moderate pain due to muscle overexertion.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-2 Discuss pharmacologic and nonpharmacologic therapies used to treat muscle spasms and spasticity.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

6) A client is prescribed dantrolene (Dantrium). Which question should the nurse ask the client?

1. "Do you have a history of gastric ulcer disease?"
2. "Do you have a history of psoriasis?"
3. "Do you have a history of gallbladder disease?"
4. "Are you taking any antihistamines?"

Answer: 4

Explanation:

1. Gastric ulcer disease is not contraindicated with dantrolene.
2. Psoriasis is not contraindicated with dantrolene.
3. Gallbladder disease is not contraindicated with dantrolene.
4. The client should be assessed for the use of antihistamines because dantrolene should not be taken with antihistamines.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

7) The nurse is preparing teaching for a client prescribed cyclobenzaprine (Amrix). Which information should the nurse include in the education?

1. Chew gum.
2. Restrict the intake of sodium.
3. Increase the intake of protein.
4. Avoid the use of caffeine.

Answer: 1

Explanation:

1. Cyclobenzaprine has anticholinergic properties and can cause a dry mouth. Because of this, the client should be encouraged to chew gum.
2. There is no need to limit sodium.
3. There is no need to increase protein.
4. There is no need to limit caffeine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 21-7 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

8) The nurse is creating a plan of care for a client prescribed cyclobenzaprine for muscle spasms. Which outcome should the nurse anticipate?

1. Stabilized vital signs
2. Improved self-concept
3. Uninterrupted sleep
4. Increased bladder tone

Answer: 3

Explanation:

1. Cyclobenzaprine is not used to stabilize vital signs.
2. Relief of muscle spasms may help with self-concept, but this is not the primary indication for the prescription.
3. Cyclobenzaprine is prescribed to decrease muscle spasms and promote comfort, which will enhance sleep.
4. Cyclobenzaprine does not increase bladder tone.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-4 Describe the nurse's role in the pharmacologic management of muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

9) A client reports being awakened during the night with leg and foot cramps. Which response should the nurse make to the client?

1. "You may need a muscle relaxant."
2. "Increase your intake of vitamin B<sub>6</sub>."
3. "Take a warm bath before going to bed."
4. "Apply heat to relieve the cramping."

Answer: 2

Explanation:

1. It is premature for a muscle relaxant.
2. Oral therapy with vitamin B<sub>6</sub> may reduce the intensity and duration of leg muscle cramping.
3. Taking a warm bath will relax the muscles but will not prevent cramping.
4. Applying heat will relax the muscles but will not prevent cramping.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-4 Describe the nurse's role in the pharmacologic management of muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

10) The nurse is reviewing the medication history for a client prescribed dantrolene (Dantrium). Which other medication should concern the nurse?

1. Verapamil (Calan)
2. Insulin
3. Clarithromycin (Biaxin)
4. Methylphenidate (Concerta)

Answer: 1

Explanation:

1. Verapamil is a calcium channel blocker; combining verapamil with dantrolene places the client at risk for cardiovascular collapse.
2. Insulin is not contraindicated with use of dantrolene.
3. Clarithromycin is not contraindicated with the use of dantrolene.
4. Methylphenidate is not contraindicated with the use of dantrolene.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

11) A client is receiving intravenous (IV) dantrolene (Dantrium). Which assessment should the nurse make a priority when caring for this client?

1. Urinary output
2. Blood glucose
3. Breath sounds
4. Intravenous site

Answer: 4

Explanation:

1. Dantrolene does not affect urinary output.
2. Dantrolene does not affect blood glucose.
3. Dantrolene does not affect the breath sounds.
4. Dantrolene IV solution has a high pH and is very irritating to tissue. The nurse should assess for infiltration of the IV site.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

12) A client with multiple sclerosis is taking baclofen (Lioresal). Which intervention should the nurse include in the plan of care for this client?

1. Fall precautions
2. Intake and output
3. Fluid restriction
4. Dietary restrictions

Answer: 1

Explanation:

1. Fall precautions should be implemented for a client receiving baclofen. Common side effects of baclofen include drowsiness, dizziness, weakness, and fatigue.
2. It is not necessary to monitor the intake and output in a client prescribed baclofen.
3. It is not necessary to restrict the fluid for a client prescribed baclofen. The client should increase the fluid intake to 2 L per day to prevent constipation.
4. It is not necessary to implement dietary restrictions for a client prescribed baclofen. The client should be instructed to increase the intake of dietary fiber to prevent constipation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-7 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

13) A client asks how skeletal muscle relaxants work. Which response should the nurse make to the client?

1. "They inhibit upper motor neuron activity and alter reflexes in the spinal cord."
2. "They work primarily by stimulating the peripheral nervous system."
3. "They increase the amount of neurotransmitter within the muscles."
4. "They stimulate motor activity within the brainstem."

Answer: 1

Explanation:

1. The exact mechanism by which skeletal muscle relaxants work is not fully understood. It is believed that they inhibit upper motor neuron activity within the brain and alter simple reflexes in the spinal cord.
2. Stimulation of the peripheral nervous system is not the mechanism of action of muscle relaxants.
3. Muscle relaxants do not increase the amount of neurotransmitter.
4. Muscle relaxants do not stimulate motor activity in the brainstem.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-3 Explain the goals of pharmacotherapy with skeletal muscle relaxants.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

14) The nurse observes the repeated pattern of muscle contraction of a client's leg for 5 seconds followed by 2 seconds of relaxation. Which terminology should the nurse use to document the finding?

1. Clonic spasm
2. Tonic spasm
3. Spasticity
4. Dystonia

Answer: 1

Explanation:

1. Clonic muscle spasms involve multiple, rapidly repeated contractions.
2. Tonic spasms involve a single prolonged contraction.
3. Spasticity involves a continuous state of contraction.
4. Dystonia is a chronic neurological disorder that can cause spasticity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 8.4 Use information and communication technology to support documentation of care and communication among providers, patients, and all system levels. | NLN Competencies: Knowledge and Science:

Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 21-1 Identify the different body systems contributing to muscle movement.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

15) A client is taking cyclobenzaprine (Amrix). Which common adverse effect should the nurse emphasize when teaching the client about this medication?

1. Alopecia
2. Tongue swelling
3. Drowsiness
4. Hypotension

Answer: 3

Explanation:

1. Alopecia is not an associated adverse effect.
2. Tongue swelling is serious but rare.
3. All centrally acting agents have the potential to cause sedation.
4. Tachycardia is possible but would likely lead to hypertension, not hypotension.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

16) The nurse is asked to explain the difference between centrally acting muscle relaxants and direct-acting antispasmodics. Which response should the nurse make?

1. Centrally acting agents inhibit neurons of the central nervous system (CNS), while direct-acting agents stimulate neurons of the CNS.
2. Centrally acting agents stimulate neurons of the CNS, while direct-acting agents stimulate neurons of the peripheral nervous system.
3. Centrally acting agents inhibit neurons of the CNS, while direct-acting agents work at the level of the neuromuscular junction and skeletal muscles.
4. Centrally acting agents stimulate the CNS, while direct-acting agents inhibit neuronal conduction of the CNS.

Answer: 3

Explanation:

1. Direct-acting agents do not work at the level of the neuromuscular junction and skeletal muscles.
2. Centrally acting agents inhibit the neurons in the CNS.
3. Centrally acting agents inhibit neurons of the CNS, while direct-acting agents work at the level of the neuromuscular junction and skeletal muscles.
4. Centrally acting agents inhibit neurons of the CNS.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-5 Compare and contrast the roles of the following drug categories in treating muscle spasms and spasticity: centrally acting skeletal muscle relaxants, direct-acting antispasmodics, and skeletal muscle relaxants for short medical procedures.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

17) The nurse is reviewing prescribed medications for a group of clients. For which client experiencing muscle spasms is the direct-acting antispasmodic medication dantrolene sodium (Dantrium) contraindicated?

1. A 20-year-old with a spinal cord injury
2. A 57-year-old with congestive heart failure
3. A 40-year-old with multiple sclerosis
4. A 65-year-old with a cerebral vascular accident

Answer: 2

Explanation:

1. Dantrolene sodium is indicated for the treatment of a spinal cord injury.
2. Dantrolene sodium is contraindicated in clients with cardiac, pulmonary, and hepatic problems.
3. Dantrolene sodium is indicated for the treatment of multiple sclerosis.
4. Dantrolene sodium is indicated for the treatment of stroke.

Page Ref: 283

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

18) The nurse is reviewing the cause of spasticity with a client. Which area of the body should the nurse explain is affected to cause the condition?

1. Cerebral cortex
2. Peripheral nerves
3. Brainstem
4. Spinal cord

Answer: 1

Explanation:

1. Spasticity usually results from damage to the motor area of the cerebral cortex.
2. Spasticity is not likely to occur with damage to peripheral nerves.
3. Spasticity usually results from damage to the motor area of the cerebral cortex.
4. Spasticity is not likely to occur after damage to the spinal cord.

Page Ref: 280

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-1 Identify the different body systems contributing to muscle movement.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

19) The nurse is asked to explain botulinum toxin type B (Myobloc). Which information should

the nurse include in the response?

1. It is classified as a cholinergic agonist.
2. The therapeutic effect can last up to a year.
3. It can take 6 months to experience the therapeutic effect.
4. High doses are toxic, causing food poisoning.

Answer: 4

Explanation:

1. The medication works by blocking the release of acetylcholine from cholinergic nerve terminals.
2. Therapeutic effects typically only last for 3—6 months.
3. It generally takes 6 weeks to experience the therapeutic effect.
4. Botulinum toxin type B is toxic in high doses. *Clostridium botulinum* is the bacterium responsible for food poisoning.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-5 Compare and contrast the roles of the following drug categories in treating muscle spasms and spasticity: centrally acting skeletal muscle relaxants, direct-acting antispasmodics, and skeletal muscle relaxants for short medical procedures.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

20) The nurse is asked how capsaicin works to treat muscle pain. Which statement should the nurse include in the response?

1. "Stimulates the body to produce endorphins that block the pain signal."
2. "Decreases the sensation of pain by interfering with the chemical messengers."
3. "Decreases the activity of the chemicals that stimulate muscle contraction."
4. "Interferes with the muscles' ability to isometrically contract."

Answer: 2

Explanation:

1. Capsaicin does not stimulate the production of endorphins.
2. Capsaicin, also known as cayenne, chili pepper, paprika, or red pepper, has been used as a remedy for minor muscle pain or tension. It diminishes the chemical messengers that travel through the sensory nerves, thereby decreasing the sensation of pain.
3. Capsaicin does not decrease the activity of the chemicals that stimulate muscle contractions.
4. Capsaicin does not interfere with the muscles' ability to isometrically contract.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-2 Discuss pharmacologic and nonpharmacologic therapies used to treat muscle spasms and spasticity.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

21) The nurse provides discharge teaching with a client who had an abobotulinumtoxin A (Dysport) injection. Which symptom should the nurse instruct the client to immediately report?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Difficulty breathing
2. Urinary retention
3. Heart palpitations
4. Difficulty swallowing
5. Eye spasm

Answer: 1, 4

Explanation:

1. Anaphylaxis is an adverse effect of this medication. Difficulty breathing is a symptom of an anaphylactic reaction.
2. Loss of bladder control is not identified as an adverse effect associated with abobotulinumtoxin A.
3. Dysrhythmias are not identified as an adverse effect associated with abobotulinumtoxin A.
4. Dysphagia is an adverse effect of this medication.
5. Eye spasms are not identified as an adverse effect associated with abobotulinumtoxin A.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 21-5 Compare and contrast the roles of the following drug categories in treating muscle spasms and spasticity: centrally acting skeletal muscle relaxants, direct-acting antispasmodics, and skeletal muscle relaxants for short medical procedures.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

22) The nurse instructs the parents of a 2-year-old client experiencing spasticity. Which statement by the parents indicates additional teaching is required?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "At some point, our child may require surgery to correct this spasticity."
2. "As long as we continue our child's medications, the spasticity can be controlled."
3. "Our physical therapy sessions should focus on flexing our child's muscles."
4. "We should repeat the exercises several times with each muscle group."
5. "It is best to give our child a rest from physical therapy by skipping 1 week a month."

Answer: 2, 3, 5

Explanation:

1. Surgery is sometimes necessary in these cases, so this statement reflects accurate knowledge.
2. Medication alone is generally not enough to control spasticity.
3. The physical therapy sessions for spasticity focus on muscle stretching, not flexion.
4. Repetitive motion exercises are beneficial in reducing and controlling spasticity. The parents have expressed accurate knowledge.
5. Physical therapy should be routine and consistent in order to reduce or control spasticity.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 21-2 Discuss pharmacologic and nonpharmacologic therapies used to treat muscle spasms and spasticity.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

23) A client prescribed cyclobenzaprine (Amrix) 1 week prior for the treatment of neck spasms reports the medication is not working. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You will need to increase the frequency of the dosage."
2. "You should discontinue the medication."
3. "It is important you continue to take the medication."
4. "You may require a different medication."
5. "Let's discuss some nonpharmacological techniques that can be used with the medication."

Answer: 3, 5

Explanation:

1. Increasing the dosage frequency is not indicated.
2. The full therapeutic effect of the medication may take 1 week or longer; the client should not be instructed to discontinue the medication.
3. The full therapeutic effect of the medication may take 1 to 2 weeks.
4. It is not necessary for the client to change medications; the full therapeutic effect of the medication may take 1 to 2 weeks. longer.
5. The full therapeutic effect of the medication may take 1 to 2 weeks; therefore, nonpharmacologic measures may be needed until the full effect of the medication is noted.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

24) A client prescribed onabotulinumtoxin A (Botox) for muscle spasms asks if the medication will make the face "look younger." Which information should the nurse tell the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Once you start on the medication, it may take a week or so before you notice a change in your skin."
2. "Be certain you take the medication with a full glass of water because it can be hard on your kidneys."
3. "There are many different uses for the drug, depending on how it is administered."
4. "You may need additional treatments with the medication in a few months."
5. "You should be aware that side effects of the medication can occur hours or weeks after your treatment."

Answer: 3, 4, 5

Explanation:

1. Onabotulinumtoxin A (Botox) in this client's case will not change the skin.
2. Onabotulinumtoxin A (Botox) is administered by injection into the muscle.
3. Onabotulinumtoxin A (Botox) has many clinical indications. Action depends on the area where the medication is administered.
4. Repeated doses of Onabotulinumtoxin A (Botox) are often required.
5. Side effects of Onabotulinumtoxin A (Botox) may not occur immediately upon administration, and the client should watch for their development for several hours to weeks later.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 21-5 Compare and contrast the roles of the following drug categories in treating muscle spasms and spasticity: centrally acting skeletal muscle relaxants, direct-acting antispasmodics, and skeletal muscle relaxants for short medical procedures.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

25) An older adult client taking cyclobenzaprine (Flexeril) 10 mg three times a day is given a prescription for 90 tablets with three refills. Which information should the nurse review with the healthcare provider about the prescription?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The dosage amount is too low for the type of injury this client sustained.
2. Cyclobenzaprine should be used with caution in those over age 65.
3. If taken as directed, the client would be able to take the medication for 120 days.
4. Cyclobenzaprine is not effective for back pain.
5. Cyclobenzaprine should not be taken with food.

Answer: 2, 3, 5

Explanation:

1. The dosage of 10 mg three times daily is standard.
2. Cyclobenzaprine is included in the Beers criteria for potentially inappropriate medication use in older adults (Beers list) and warrants careful monitoring.
3. The manufacturer recommends that treatment not extend beyond 3 weeks or 21 days.
4. Cyclobenzaprine is not effective for muscle spasm due to spinal cord injury but is useful in the treatment of back pain from muscle strain.
5. The drug may be taken with food or milk if gastric upset occurs.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

26) A client is taking cyclobenzaprine (Amrix) for muscle spasms. For which client statement should the nurse provide additional teaching about the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My wife and I are driving our motor home to the beach tomorrow."
2. "I am going home to mow my lawn."
3. "I take a nap every afternoon."
4. "I just checked out a new book from the library."
5. "I am taking my grandchildren to the zoo tomorrow."

Answer: 1, 2, 5

Explanation:

1. The client should avoid driving until the effects of the prescription are known.
2. The client should not operate machinery until the effects of the prescription are known.
3. Taking a nap may be necessary due to the side effects of drowsiness related to the prescription.
4. Reading is a quiet activity that does not pose a safety risk.
5. It is not recommended the client take responsibility for the children until the effects of the prescription are known.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. management across the health-illness continuum, across lifespan, and in all healthcare settings. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

27) A client in surgery is developing signs of malignant hyperthermia. Which action should the nurse expect to be prescribed?

1. Administer intravenous dantrolene.
2. Control associated symptoms.
3. Discontinue the triggering medication.
4. Rapidly assess for supporting signs and symptoms.

Answer: 4

Explanation:

1. Dantrolene is administered intravenously after discontinuing the triggering agent. The triggering agent is not discontinued until a rapid assessment of the client for supporting signs and symptoms of malignant hyperthermia.
2. Control of associated symptoms occurs only after administering the dantrolene intravenously that is prescribed to treat the malignant hyperthermia.
3. The initial action is to rapidly assess the client for supporting signs and symptoms prior to discontinuing the triggering agent.
4. The initial action is to rapidly assess the client for supporting signs and symptoms of malignant hyperthermia.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 21-7 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

28) The nurse is reviewing prescribed medications for a group of clients. Which client prescribed dantrolene (Dantrium) should the nurse recognize has the greatest risk for liver toxicity?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A 49-year-old female with a history of esophagitis
2. A 60-year-old male with pneumonia
3. A 38-year-old female with type 2 diabetes
4. An 18-year-old male with a leg injury
5. A 26-year-old female with an ostomy

Answer: 1, 3

Explanation:

1. The age and gender of the client increase the risk for liver toxicity.
2. The risk for liver toxicity is present for all clients prescribed dantrolene. Pneumonia does not pose the greatest risk.
3. Type 2 diabetes increases the client's risk for liver toxicity.
4. A leg injury does not increase the risk for liver toxicity.
5. An ostomy does not increase the risk for liver toxicity.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 21-6 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

29) A client who experienced malignant hyperthermia is being treated with dantrolene. Which assessment finding should the nurse recognize is an adverse reaction to the treatment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Swelling at the intravenous site
2. Muscle weakness
3. Sore throat
4. Irritability
5. Anorexia

Answer: 1, 2

Explanation:

1. Injection site reactions such as pain, redness, and swelling are adverse reactions.
2. Muscle weakness is an adverse reaction.
3. Sore throat is not associated with administration of dantrolene.
4. Irritability is not associated with administration of dantrolene.
5. Anorexia is not associated with administration of dantrolene.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-6 For each of the drug classes listed in *Drugs at a Glance*, know representative drug examples, and explain their mechanisms of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

30) The nurse is reviewing the medical record of a client prescribed cyclobenzaprine (Amrix). Which finding should cause the nurse the most concern?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client reports drinking wine each day with dinner.
2. The client has a history of using nasal saline spray for allergies.
3. The client was prescribed a monoamine oxidase inhibitor last month.
4. The client's blood glucose was elevated at the last visit.
5. The client had an ulnar fracture repaired a year ago.

Answer: 1, 3

Explanation:

1. Alcohol should not be consumed while taking cyclobenzaprine.
2. There is no interaction between nasal saline spray and cyclobenzaprine.
3. Cyclobenzaprine should not be used within 2 weeks of monoamine oxidase inhibitor therapy because hyperpyretic crisis and convulsions may occur.
4. There is no contraindication for use of cyclobenzaprine in a client with elevated blood glucose.
5. There is no relationship between use of cyclobenzaprine and a fractured ulna.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 21-7 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for muscle spasms.

MNL Learning Outcome: Examine drugs used for muscle spasms and spasticity.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 22 Substance Use Disorder**

1) The nurse provides a community program on the topic of substance use. Which statement made by an attendee indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Heroin addicts often die from heroin withdrawal."
2. "Substance abuse depends on complex variables."
3. "Most addicts became addicted from pain medication in a hospital."
4. "Addiction includes a compulsion to use a mood-altering substance."
5. "There is most likely a genetic component to addiction."

Answer: 2, 4, 5

Explanation:

1. While extremely unpleasant, withdrawal from opioids is typically not life threatening.
2. Substance abuse depends on multiple, complex, interacting variables.
3. Prescription drugs rarely cause addiction when used according to accepted medical protocols.
4. Addiction is an overwhelming compulsion that drives someone to repetitive drug-taking behavior, despite serious health and social consequences.

5. Substance use depends on multiple factors to include genetics, environment, and cost or availability.

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Cognitive Level: Analyzing

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 22-1 Explain underlying causes of substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

2) A client asks what a "physical addiction to alcohol" means. Which response should the nurse make to the client?

1. "The brain remembers the euphoria experienced with alcohol, and there is a craving for it."
2. "There is an intense craving for alcohol, but the craving can be best managed through group therapy."
3. "The body becomes used to alcohol and if it is abruptly stopped withdrawal symptoms occur."
4. "Feelings of depression occur if the use of alcohol is stopped."

Answer: 3

Explanation:

1. Alcohol does produce euphoria, but a craving for the substance is not a medical issue.
2. Psychological dependence, or craving, does not involve physical withdrawal symptoms.
3. Over time, the body's cells become accustomed to the presence of the unnatural substance. Specific, physical withdrawal symptoms will occur; the client needs to be medically withdrawn from the substance.
4. Depression may accompany physical withdrawal, but physical signs are what medical management require.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-2 Compare and contrast psychologic and physical dependence.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

3) A client with a history of alcoholism requires higher amounts of opioids for pain management. Which phenomena should the nurse suspect is occurring with the client?

1. Physical dependence
2. Paradoxical reaction
3. Resistance to opioids
4. Cross tolerance

Answer: 4

Explanation:

1. Physical dependence occurs when the body adapts to repeated use of a substance by altering normal physiology.
2. A paradoxical reaction is the opposite of an anticipated effect occurring.
3. Resistance refers to the immune system and infections and should not be used interchangeably with tolerance.
4. With chronic alcohol use, the liver adapts and metabolizes alcohol at a faster rate. More of the substance is required to achieve the same effect. This is a phenomenon known as cross-tolerance. This client has a tolerance to alcohol, so will require additional anesthesia for surgery since both drugs are central nervous system depressants.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

4) A client plans to get clean and reports avoiding drugs and alcohol for 2 days. For which substance should the nurse anticipate the client needing medical intervention?

1. Heroin
2. Alcohol
3. Cocaine
4. Marijuana

Answer: 2

Explanation:

1. Withdrawal from heroin is very unpleasant, but it is not life threatening.
2. Alcohol withdrawal syndrome is severe and may need supportive medication to prevent seizures.
3. Withdrawal from cocaine is uncomfortable, but it is not life threatening.
4. There is virtually no withdrawal from marijuana.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

5) A parent is concerned that their adolescent child is up late at night, is listless, and frequently uses eye drops for bloodshot eyes. Which statement should the nurse include in the discussion with the parent?

1. "Your child might be depressed; insomnia is common with depression."
2. "Your child could be smoking marijuana."
3. "Sounds like the symptoms of cocaine use."
4. "Maybe your child is studying too hard."

Answer: 2

Explanation:

1. Depression in this client is possible, but depressed clients do not always have red eyes that require the frequent use of eyedrops.
2. Chronic use of marijuana is associated with a lack of motivation in achieving or pursuing life goals. One hallmark symptom of marijuana use is red or bloodshot eyes, caused by dilation of blood vessels. It is important for the parent to discuss this with the adolescent.
3. Reddened or bloodshot eyes are not commonly seen with cocaine abuse but occur with the use of marijuana.
4. There is no indication the adolescent has been studying.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.  
MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

6) A client with a history of ingesting large volumes of liquor every day reports feeling sick and losing consciousness after two drinks. Which condition should the nurse suspect is occurring with the client?

1. Pancreatic damage
2. Liver damage
3. The client is in denial and is most likely minimizing the amount of alcohol consumed.
4. The client has brain damage from the alcohol and cannot remember how much is consumed.

Answer: 2

Explanation:

1. While clients with alcoholism frequently have pancreatic damage, the symptoms described are related to the inability of the liver to metabolize the alcohol.
2. Alcoholism is a common cause of cirrhosis, a debilitating, and often fatal, failure of the liver to perform its vital functions, such as metabolism of alcohol.
3. While clients with alcoholism are frequently in denial and tend to minimize the amount of alcohol they consume, the symptoms described are related to the inability of the liver to metabolize the alcohol.
4. While clients with alcoholism frequently have brain damage, the symptoms described are related to the inability of the liver to metabolize the alcohol.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

7) The nurse is preparing to assess a client that is withdrawing from opioids. Which assessment finding should the nurse anticipate?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Abdominal cramping
2. Orthostatic hypotension
3. Hot, dry skin
4. Violent yawning
5. Agitation

Answer: 1, 2, 4, 5

Explanation:

1. Symptoms of opioid withdrawal include abdominal cramping.
2. Orthostatic hypotension occurs during opioid withdrawal.
3. Diaphoresis is associated with opioid withdrawal.
4. Signs of opioid withdrawal include violent yawning.
5. Signs of opioid withdrawal include agitation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

8) A client asks what physiological effects occur if smoking is stopped. Which information should the nurse include in response to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Headaches
2. Depression
3. Increased appetite
4. Rapid heart rate
5. Insomnia

Answer: 1, 3, 4, 5

Explanation:

1. Headaches are associated with nicotine withdrawal.
2. Depression is not associated with nicotine withdrawal.
3. Increased appetite is a symptom associated with nicotine withdrawal.
4. A rapid heart rate is a symptom of nicotine withdrawal.
5. Insomnia is a symptom of nicotine withdrawal.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: I.C.1 Value seeing healthcare situations "through patients' eyes." | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

9) A client reports taking "yellow jackets," a barbiturate, but has not had any for a few days. Which action should the nurse make a priority?

1. Manage the client's depression.
2. Search the room frequently because the client's friends will most likely supply the drug.
3. Manage a withdrawal that could be life threatening.
4. Manage the client's pain.

Answer: 3

Explanation:

1. Withdrawal from barbiturates can be life threatening; therefore, the client's physical condition will be a priority over the psychological condition.
2. Performing room searches is not the highest priority.
3. Barbiturates are central nervous system depressants. Withdrawal symptoms resemble those of alcohol withdrawal and may be life threatening.
4. Pain is not associated with withdrawal from barbiturates and is not life threatening.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

10) A family member of a deceased client that overdosed on cocaine asks about the cause of death. Which reason should the nurse recognize is the most likely cause of the client's death?

1. Cardiac arrest
2. Rhabdomyolysis
3. Drug impurity
4. Aneurysm

Answer: 1

Explanation:

1. Overdose of cocaine can result in dysrhythmias, convulsions, stroke, or death due to cardiac and respiratory arrest.
2. Rhabdomyolysis is not associated with a cocaine overdose.
3. Although impurities in cocaine could be toxic, overdose is much more likely to result in cardiac arrest.
4. Aneurysms are not associated with an overdose of cocaine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

11) A client has smoked one pack of cigarettes daily for the past few years and is currently prescribed oral contraceptives. Which statement should the nurse include when teaching the client?

1. "You are at a higher risk for a heart attack than nonsmokers."
2. "The nicotine will decrease the effectiveness of your birth control pills."
3. "You are at a higher risk for developing diabetes than smokers who do not use birth control pills."
4. "You are at a higher risk for emphysema than general smokers."

Answer: 1

Explanation:

1. The client that smokes and takes oral contraceptives has an increased risk of a fatal heart attack.
2. There is no evidence to support that nicotine decreases the effectiveness of oral contraceptives.
3. There is no evidence to support a correlation among diabetes, smoking, and oral contraceptives.
4. Smokers are at higher risk for emphysema. The use of oral contraceptives does not increase the risk.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

12) A client with alcoholism prescribed disulfiram (Antabuse) reports stopping the medication a week ago and has started drinking again. Which assessment finding should the nurse anticipate?

1. Headache, nausea, and vomiting
2. Confusion and fine tremors
3. An absence of symptoms
4. Hyperglycemia and thirst

Answer: 1

Explanation:

1. Alcohol sensitivity continues for up to 2 weeks after disulfiram has been discontinued. If alcohol is consumed while taking disulfiram, the client becomes violently ill within 5 to 10 minutes.

Symptoms include headache, shortness of breath, nausea, and vomiting.

2. Confusion and fine tremors are not side effects of the combined use of alcohol and disulfiram.

3. Alcohol sensitivity continues for up to 2 weeks after disulfiram has been discontinued.

4. Hyperglycemia and thirst are not side effects of the combined use of alcohol and disulfiram.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.C.1 Value seeing healthcare situations "through patients' eyes." | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

13) A client requests medication to help with smoking cessation. Which drug should the nurse anticipate the healthcare provider will prescribe?

1. Disulfiram (Antabuse)
2. Bupropion (Zyban)
3. Naltrexone (ReVia, Vivitrol)
4. Dextroamphetamine (Dexedrine)

Answer: 2

Explanation:

1. Disulfiram is prescribed to discourage alcohol relapses.
2. Bupropion is prescribed to help reduce the cravings and symptoms of nicotine withdrawal.
3. Naltrexone is an opioid antagonist that reduces the craving experienced by clients who are alcohol dependent.
4. Dextroamphetamine is prescribed for the treatment of attention-deficit/hyperactivity disorder and narcolepsy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

14) The nurse is caring for a client suspected of an opioid overdose. Which medication should the nurse anticipate administering?

1. Methadone (Dolophine)
2. Methylphenidate (Ritalin)
3. Naloxone (Narcan)
4. Bupropion (Zyban)

Answer: 3

Explanation:

1. Methadone is a synthetic opioid that is used in the treatment of heroin addiction.
2. Methylphenidate is a central nervous system stimulant widely prescribed to children with attention-deficit/hyperactivity disorder.
3. Naloxone is used to reverse the effects of an opioid overdose.
4. Bupropion is used for the treatment of nicotine withdrawal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

15) A client is suspected of having a hallucinogen toxicity. Which finding should the nurse expect to assess?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Somnolence
2. Confusion
3. Panicked reactions
4. Blurred vision
5. Respiratory depression

Answer: 2, 3, 4

Explanation:

1. Somnolence is not a symptom associated with hallucinogen toxicity.
2. Confusion is a symptom associated with hallucinogen toxicity.
3. Panicked reactions are associated with hallucinogen toxicity.
4. Blurred vision is a symptom associated with hallucinogen toxicity.
5. Respiratory depression is not a symptom associated with hallucinogen toxicity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

16) A client wants to stop taking methamphetamines but cannot stop. Which should the nurse recognize the client is experiencing?

1. Psychological dependence
2. Substance dependence
3. Physical dependence
4. Withdrawal syndrome

Answer: 2

Explanation:

1. There is no indication the client has drug-seeking behaviors, so it is unknown if there is a psychological dependence on the drug.
2. When a client has an overwhelming desire to take a drug and cannot stop, this condition is referred to as substance dependence.
3. There is no indication the client is experiencing any symptoms when not taking the drug.
4. The statement made by the client indicates the intent to stop using the drug.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-2 Compare and contrast psychologic and physical dependence.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

17) A client is suspected of having acute alcohol intoxication. Which symptoms should the nurse anticipate when withdrawal from alcohol occurs?

1. Lethargy, constipation, light sensitivity, and weight loss
2. Anxiety, seizures, hearing loss, and alopecia
3. Tremors, anxiety, confusion, and delirium
4. Abdominal pain, chills, pupil dilation, and lethargy

Answer: 3

Explanation:

1. Lethargy, constipation, light sensitivity, and weight loss are not commonly associated with alcohol withdrawal.
2. Anxiety, seizures, hearing loss, and alopecia are not commonly associated with alcohol withdrawal.
3. Common withdrawal symptoms associated with alcohol include tremors, fatigue, anxiety, abdominal cramping, hallucinations, confusion, seizures, and delirium.
4. Abdominal cramping may occur, but chills, pupil dilation, and lethargy are not commonly associated with alcohol withdrawal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

18) A client receiving pain medication for several weeks needs an increase in dosage to adequately manage symptoms. Which response should the nurse recognize has occurred?

1. Immunity
2. Tolerance
3. Physiologic addiction
4. Psychological addiction

Answer: 2

Explanation:

1. The term *immunity* is not associated with the requirement of an increase in the dosage of a medication.
2. Drug tolerance occurs when the body adapts to a substance after repeated administration.
3. A physiological addiction occurs when the body becomes addicted to the medication.
4. A psychological addiction is reflected by an emotional need for the substance.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-4 Discuss how the nurse can recognize drug tolerance in patients.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

19) The nurse is preparing a community program on substances used. Which drug should the nurse identify that is least likely to produce physical dependence or tolerance?

1. Marijuana
2. Morphine
3. Nicotine
4. Ethyl alcohol

Answer: 1

Explanation:

1. Although psychological dependence is very high with marijuana, it has minor to no withdrawal symptoms.
2. Morphine produces withdrawal symptoms.
3. Nicotine produces withdrawal symptoms.
4. Ethyl alcohol produces withdrawal symptoms.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

20) A client asks for information about cannabis-infused edibles. Which information should the nurse discuss with the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Delayed onset
2. Longer duration of action
3. Physical dependence
4. Higher risk of unintentional overdose
5. Large doses are associated with psychedelic high

Answer: 1, 2, 4, 5

Explanation:

1. Cannabis-infused edibles have a delayed onset.
2. Cannabis-infused edibles have a longer duration of action.
3. Cannabis-infused edibles do not have an increased risk of physical dependence.
4. Cannabis-infused edibles have a higher risk of unintentional overdose.
5. Cannabis-infused edibles, when taken in large doses, are associated with psychedelic high.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.C.1 Value seeing healthcare situations "through patients' eyes." | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

21) A client is being evaluated for a substance use disorder. Which drug toxicity should the nurse recall that causes tachycardia and palpitations?

1. Nicotine
2. Alcohol
3. Benzodiazepines
4. Marijuana

Answer: 1

Explanation:

1. Signs of nicotine toxicity include heart palpitations, tachydysrhythmias, confusion, depression, and seizures.
2. Signs of alcohol toxicity include somnolence and central nervous system depression.
3. Signs of benzodiazepine toxicity include somnolence and confusion.
4. Signs of marijuana toxicity include euphoria and paranoia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

22) A client is withdrawing from alcohol intoxication. Which medication should the nurse anticipate being prescribed for the client?

1. Varenicline (Chantix)
2. Naltrexone (ReVia, Vivitrol)
3. Disulfiram (Antabuse)
4. Diazepam (Valium)

Answer: 4

Explanation:

1. Varenicline is prescribed to treat nicotine withdrawal.
2. Naltrexone is prescribed to treat opioid overdose.
3. Disulfiram is prescribed to discourage alcohol relapses.
4. Benzodiazepines are the preferred treatment for acute alcohol withdrawal. Diazepam is a benzodiazepine used to treat acute alcohol withdrawal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

23) The nurse instructs a client about abuse of methylphenidate. Which response by the client indicates further teaching is required?

1. "The medication produces relaxation."
2. "The medication heightens awareness."
3. "The medication gives them more energy."
4. "The medication produces euphoria."

Answer: 1

Explanation:

1. Methylphenidate is a CNS stimulant that does not produce relaxation.
2. Methylphenidate is a CNS stimulant resulting in heightened awareness.
3. Methylphenidate is a CNS stimulant resulting in an increased energy level.
4. Methylphenidate is a CNS stimulant that, when abused, produces euphoria.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 22-6 Describe the role of the nurse in delivering care to individuals who have substance use disorder.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

24) The nurse is assessing a client who has taken LSD. Which finding should the nurse anticipate assessing?

1. Hypotension
2. Increased temperature
3. Pinpoint pupils
4. Bradycardia

Answer: 2

Explanation:

1. LSD affects the central and autonomic nervous system, resulting in hypertension.
2. LSD affects the central and autonomic nervous system, resulting in an increased body temperature.
3. LSD affects the central and autonomic nervous system, resulting in dilated pupils.
4. LSD affects the central and autonomic nervous system, resulting in an increased heart rate.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

25) A client reports abusing a prescribed antianxiety medication. Which finding should the nurse identify as psychologic dependence?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client's history reveals the long-term use of high doses of antianxiety medication.
2. The client describes the "need" to use the antianxiety medication despite not feeling anxious.
3. The client describes feeling nauseous with abdominal cramping.
4. The client states no family contact because of the need for the antianxiety medication.
5. The client reports not sleeping and feels very anxious and tired.

Answer: 1, 2, 4

Explanation:

1. Psychological dependence usually requires the use of relatively high doses of antianxiety medication over a prolonged period of time.
2. Psychological dependence is the "need" or desire to continue taking a drug when there is a lack of physical symptoms.
3. Physical dependence produces physical signs of discomfort when the agent is discontinued. This is not true of psychological dependence.
4. Continuing the use of the antianxiety drug at the risk of jeopardizing relationships is indicative of psychological dependence.
5. Physical dependence produces physical signs of discomfort when the agent is discontinued. This is not true of psychological dependence.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-2 Compare and contrast psychologic and physical dependence.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

26) A client reports using methcathinone (*Cat*). In which schedule should the nurse categorize this drug?

1. I
2. II
3. III
4. IV

Answer: 1

Explanation:

1. Methcathinone is a Schedule I drug.
2. Methcathinone is not a Schedule II drug.
3. Methcathinone is not a Schedule III drug.
4. Methcathinone is not a Schedule IV drug.

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Cognitive Level: Applying

Client Need/Sub: Psychological Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

27) The nurse is teaching a client who desires to stop using heroin. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You are probably going to have some withdrawal symptoms, but there are medications that can help you."
2. "Expect to remain on methadone for quite a while."
3. "Methadone will produce the same high as the heroin you have been using."
4. "You will need a supply of syringes and needles for your methadone treatment."
5. "Methadone does not cause any withdrawal symptoms."

Answer: 1, 2

Explanation:

1. Withdrawal symptoms are manageable with medications.
2. Some clients remain on methadone for the remainder of their lives.
3. Methadone does not produce the euphoria of other opioids.
4. Methadone is an oral drug.
5. Withdrawal from methadone is more prolonged, greater than with heroin, but the symptoms are less intense.

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Cognitive Level: Applying

Client Need/Sub: Psychological Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids. MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

28) A client asks how long the effects of marijuana last. Which response should the nurse make?

1. "It depends on how much you smoked."
2. "The effects can last up to 24 hours."
3. "The effects will last a few hours."
4. "It depends on your body weight."

Answer: 2

Explanation:

1. The length of effects of marijuana is not based on how much was smoked. The effects of smoking can last up to 24 hours.
2. When inhaled, marijuana produces effects that occur within minutes and last up to 24 hours.
3. When inhaled, marijuana produces effects that occur within minutes and last up to 24 hours.
4. The length of effect from smoking marijuana is not based on body weight.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

29) The nurse is preparing a community education seminar on substance use. Which information should the nurse include about marijuana?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. THC is the ingredient that causes most of the psychoactive effects.
2. Metabolites of marijuana can be detected in the urine for several days after last use.
3. Metabolites of marijuana can be detected in the body for months to years after last use.
4. Smoking marijuana can decrease the risk of glaucoma.
5. Smoking marijuana results in a greater accumulation of tar in the lungs than does cigarette smoking.

Answer: 1, 2, 3, 5

Explanation:

1. Delta-9-tetrahydrocannabinol (THC) is the ingredient responsible for most of the psychoactive properties of marijuana.
2. THC remains in the urine for days after the last exposure.
3. Metabolites of THC are detectable in the body for up to years after the last use.
4. Marijuana is used to treat glaucoma, not for decreasing the risk for glaucoma.
5. Because marijuana smoke is inhaled more deeply and held within the lungs for a longer time, it introduces four times more tar into the lungs than tobacco smoke.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 22-5 Explain the major characteristics of drug misuse, dependence, tolerance, and approaches for treatment in the following drug classes: alcohol, nicotine, marijuana and related substances, hallucinogens, central nervous system stimulants, sedatives, and opioids. MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

30) A client reports drinking several cups of coffee each day. Which finding should the nurse expect to assess in the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Restlessness
2. Insomnia
3. Weight gain
4. Urinary retention
5. Nervousness

Answer: 1, 2, 5

Explanation:

1. The caffeine in coffee can cause restlessness.
2. Insomnia is associated with the use of caffeine.
3. There is no direct association between caffeine intake and weight gain.
4. Caffeine has a pronounced diuretic effect.
5. The caffeine in coffee can cause nervousness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 22-3 Compare withdrawal syndromes for the various substance abuse classes.

MNL Learning Outcome: Examine substance use disorder and approaches for treatment.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 23 Drugs for Lipid Disorders**

1) A client asks how cholesterol in the diet caused the development of heart disease. Which response should the nurse make to the client?

1. "The arteries around your heart are narrowed by low-density lipoprotein cholesterol buildup in them."
2. "Low-density lipoprotein cholesterol is converted to saturated fat, which is stored in your coronary arteries."
3. "It is a good idea to decrease low-density lipoprotein cholesterol in your diet, although current research has not proven a correlation yet."
4. "Too much low-density lipoprotein cholesterol narrows all the arteries in your body so your heart does not receive enough blood to be healthy."

Answer: 1

Explanation:

1. Storage of cholesterol in the lining of coronary blood vessels contributes to plaque buildup and atherosclerosis; this contributes significantly to coronary artery disease.
2. Low-density lipoprotein (LDL) cholesterol is not converted to saturated fat and stored in the coronary arteries.
3. For several years, research has demonstrated a correlation between high levels of LDL and coronary artery disease.

4. Coronary artery disease is caused by plaque buildup in the coronary arteries, not the peripheral arteries.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-3 Summarize the links between lipoprotein levels and atherosclerotic cardiovascular disease.

MNL Learning Outcome: Examine drugs used for lipid disorders.

2) The nurse is teaching a client with hyperlipidemia about lipids. Which information should the nurse include in the education?

1. High-density lipoprotein (HDL) is called good cholesterol because it removes cholesterol from the body and gets rid of it in the liver.
2. HDL is called good cholesterol because it increases the oxygen content in the arteries and reduces the amount of plaque buildup.
3. HDL decreases the bad cholesterol (low-density lipoprotein [LDL]) and promotes excretion of it through the kidneys.
4. HDL decreases low-density lipoprotein (LDL) and prevents it from converting to very low-density lipoprotein (VLDL), which is the worst kind of cholesterol in the body.

Answer: 1

Explanation:

1. HDL assists in the transport of cholesterol away from body tissues and back to the liver in a process called reverse cholesterol transport.
2. HDL does not increase oxygen content in the arteries.
3. HDL does not reduce LDL, which is excreted in the feces, not the kidneys.
4. VLDL reduces to become LDL.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-1 Compare and contrast the different types of lipids.

MNL Learning Outcome: Examine drugs used for lipid disorders.

3) A client is diagnosed with altered lipid blood levels. Which information about the dietary intake of lipids should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Phospholipids will help prevent Alzheimer disease."
2. "Phospholipids are essential to building plasma membranes."
3. "Cholesterol is a building block for estrogen and testosterone."
4. "Triglycerides are the major form of fat in the body."
5. "Cholesterol in the diet is unnecessary as the liver synthesizes it."

Answer: 2, 3, 4, 5

Explanation:

1. There is no evidence to support that phospholipids will prevent Alzheimer disease.
2. Phospholipids are essential to building plasma membranes.
3. Cholesterol is a building block for estrogen and testosterone.
4. Triglycerides are the major form of fat in the body.
5. Cholesterol is not needed in the diet as the liver synthesizes adequate amounts from other chemicals.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-2 Compare and contrast the different types of lipoproteins and their transport through the blood.

MNL Learning Outcome: Examine drugs used for lipid disorders.

4) The nurse reviewing a client's serum cholesterol levels notes the following:

Low-density lipoprotein (LDL) = 105 mg/dl

High-density lipoprotein (HDL) = 37 mg/dl

LDL/HDL ratio = 4.1

Which outcome should the nurse make a priority in the client's plan of care?

1. Maintenance of normal lipid levels without the use of pharmacotherapy
2. Education about diet and exercise
3. Validation of the client's understanding the importance of lifestyle changes
4. Achievement of normal lipid levels through client compliance with medications

Answer: 1

Explanation:

1. The client has borderline laboratory levels; clients with these values can control their dyslipidemia through nonpharmacological interventions. Maintenance of normal lipid values without pharmacotherapy should be a therapeutic goal.
2. Educating the client about diet and exercise is a nursing intervention, not an outcome.
3. Validation of the understanding of the importance of lifestyle changes is a nursing intervention, not an outcome.
4. The best outcome for a client with borderline serum lipids is to maintain normal levels without the use of medications.

Page Ref: 305

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 23-4 Give examples of how elevated lipid levels can be managed through nonpharmacologic means.

MNL Learning Outcome: Examine drugs used for lipid disorders.

5) The nurse provides nutritional teaching for a client with a high low-density lipoprotein (LDL) level. Which menu choice made by the client indicates an understanding of the teaching?

1. Beef tenderloin with gravy and noodles, fruit salad with apples and grapefruit, slice of rye bread, and apple pie
2. Grilled chicken salad with strawberries and pecans, baked macaroni and cheese, and low-fat brownie
3. Grilled chicken with rice and broccoli, tossed salad with walnuts and sliced apples, slice of whole-wheat bread, and low-fat chocolate pudding
4. Low-fat hamburger with whole-wheat bun, tossed salad with walnuts and olive oil, and raisin-oatmeal cookie

Answer: 3

Explanation:

1. The menu that includes beef tenderloin has some healthy choices, but the gravy is too high in fat, as is the apple pie.
2. The menu that includes the grilled chicken salad has no healthy choices except for the pecans; the baked macaroni and cheese would be high in fat.
3. A lipid-reducing diet should include soluble fiber and plant-based food items in the diet. The best menu choice includes rice, broccoli, walnuts, apples, and whole-wheat bread.
4. The menu that includes low-fat hamburger has some healthy choices, but the low-fat hamburger is too high in fat, as is a raisin-oatmeal cookie.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 23-4 Give examples of how elevated lipid levels can be managed through nonpharmacologic means.

MNL Learning Outcome: Examine drugs used for lipid disorders.

6) The patient taking cholestyramine (Questran) is prescribed bisacodyl (Dulcolax) tablets for constipation. At which time should the nurse give the bisacodyl tablets?

1. The drugs can be administered together.
2. Four hours after administration of cholestyramine (Questran).
3. Bisacodyl (Dulcolax) can be given any time but must be taken with food.
4. One hour after administration of cholestyramine (Questran).

Answer: 2

Explanation:

1. These drugs cannot be administered together because cholestyramine (Questran) can bind to other drugs and interfere with their absorption.
2. Other drugs must be administered more than 2 hours before, or 4 hours after, the client takes cholestyramine (Questran) because it can bind to other drugs and interfere with their absorption.
3. Bisacodyl (Dulcolax) cannot be administered with cholestyramine (Questran) as it will not be absorbed; Bisacodyl (Dulcolax) does not need to be given with food.
4. A minimum of 4 hours administration time between drugs is needed to be sure cholestyramine (Questran) does not interfere with absorption of other drugs.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-6 Explain the mechanism by which bile acid sequestrants lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

7) The nurse instructs a client about gemfibrozil (Lopid). Which client statement indicates that teaching was effective?

1. "I should take this medication on an empty stomach to help it absorb better."
2. "I must take this medication with food, or I will have heartburn."
3. "My healthcare provider said it really doesn't matter how I take this medication."
4. "Taking this medication with yogurt will help it to absorb better."

Answer: 2

Explanation:

1. Taking gemfibrozil on an empty stomach can cause gastrointestinal (GI) distress; food will decrease this.
2. Gemfibrozil should be administered with food to decrease GI distress.
3. It is highly unlikely the healthcare provider would say that it does not matter how the medication is taken; the medication must be taken with food to decrease GI distress.
4. Gemfibrozil should not be taken with yogurt because fatty foods may decrease its efficacy.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

8) A client asks the nurse to explain the different types of medication for high cholesterol. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The best drugs to raise high-density lipoprotein levels are the fibric acid drugs."
2. "The statin drugs are good but will cause a lot of flushing if you swallow them with warm fluids."
3. "The bile resins keep cholesterol from being absorbed but have some side effects."
4. "The statin drugs inhibit the making of cholesterol and are considered the best choice."
5. "Fibric acid drugs will decrease triglycerides, but your low-density lipoprotein will still be high."

Answer: 3, 4, 5

Explanation:

1. The best drugs to raise high-density lipoprotein levels are statins, not fibric acid drugs.
2. Niacin, not statins, will cause flushing, which is worse with warm fluids.
3. Bile resins are effective, but numerous side effects limit their usefulness.
4. Statin drugs inhibit HMG-CoA reductase, which is necessary for the biosynthesis of cholesterol and are the drugs of first choice in reducing serum lipid levels.
5. Fibric acid agents are effective but will not reduce low-density lipoprotein levels.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

9) A client asks how fat is carried in the blood. Which response should the nurse make?

1. "Fats in your blood are carried inside small molecules called phospholipids."
2. "Fats travel in the blood on little proteins called lipoproteins."
3. "Fats are free floating in your circulatory system."
4. "Fats are encapsulated inside little bags known as lecithin."

Answer: 2

Explanation:

1. Phospholipids are a class of lipids that is essential to building plasma membranes.
2. Lipids are carried through the blood as lipoproteins.
3. Fats are not free floating in the circulatory system.
4. Lecithins are phospholipids found in egg yolks and soybeans.

Page Ref: 3

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-3 Summarize the links between lipoprotein levels and atherosclerotic cardiovascular disease.

MNL Learning Outcome: Examine drugs used for lipid disorders.

10) The nurse is caring for a client receiving a statin. Which assessment data should the nurse report to the healthcare provider?

1. "My calves hurt, and I had a hard time walking to the bathroom."
2. "I know I just started this medicine yesterday, but my stomach really is upset."
3. "Will you call my healthcare provider? I have a really bad headache."
4. "My heart rate really went up this morning."

Answer: 1

Explanation:

1. The nurse must assess for complaints of muscle pain, tenderness, and weakness, as this could indicate a type of myopathy known as rhabdomyolysis.
2. Gastrointestinal distress is a common occurrence with the statin drugs and is easily remedied by taking the drug with food.
3. Headache is considered a minor side effect and is easily remedied by analgesic medications.
4. The statin drugs do not affect heart rate.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 23-5 Explain the mechanism by which statins lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

11) The nurse is assessing a client who is taking a statin. Which finding should the nurse report to

the healthcare provider?

1. Bowel sounds markedly increased in all four quadrants of the abdomen
2. Urine output of 200 mL/hour
3. Urine output of 20 mL/hour
4. Moderate elevation in liver function tests

Answer: 3

Explanation:

1. Increased bowel sounds will be heard with diarrhea, but diarrhea is a common side effect of statin therapy and is not considered a serious side effect initially.
2. A urine output of 200 mL/hour does not indicate renal failure, which occurs with rhabdomyolysis.
3. Rhabdomyolysis is a rare but serious side effect of statin drugs. Contents of muscle cells spill into the systemic circulation, causing potentially fatal, acute renal failure. Urine output of less than 30 mL/hour is considered renal failure.
4. Elevation of liver function tests may occur during statin therapy, but this is not as high a priority as acute renal failure.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

12) A client is prescribed cholestyramine (Questran). Which assessment should the nurse make a priority for this client?

1. Auscultation of heart sounds
2. Auscultation of bowel sounds in all four abdominal quadrants
3. Assessment of 24-hour urine output
4. Palpation for peripheral edema in the lower extremities

Answer: 2

Explanation:

1. Cholestyramine (Questran) does not affect cardiac status.
2. Assessment of bowel sounds is a priority because cholestyramine (Questran) could cause obstruction of the intestines.
3. Cholestyramine (Questran) does not cause rhabdomyolysis, so the nurse would not assess for 24-hour urine output.
4. Cholestyramine (Questran) does not cause peripheral edema.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

13) A client is prescribed niacin to lower lipid levels. Which information should the nurse include when teaching the client about this medication?

1. "Be sure to take your niacin on an empty stomach as soon as you arise."
2. "Take one aspirin 30 minutes before you take your niacin."
3. "Take your niacin tablet with food and at least one full glass of water."
4. "It may be time to ask your healthcare provider about switching to another drug."

Answer: 2

Explanation:

1. Taking niacin on an empty stomach early in the morning will not have any effect on flushing.
2. Taking one aspirin tablet 30 minutes prior to niacin administration can reduce uncomfortable flushing in many clients because aspirin decreases the prostaglandin release that may cause a flushing effect.
3. Taking niacin with food and water will not have any effect on flushing.
4. Switching to another drug is premature because the niacin is effective.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

14) A client taking a statin has an elevated creatine kinase (CK) level. Which action should the nurse take?

1. Hold the medication and obtain another CK level in 6 hours.
2. Administer the medication and continue to assess for muscle pain.
3. Administer the medication and obtain another CK level in 6 hours.
4. Hold the medication and notify the healthcare provider.

Answer: 4

Explanation:

1. Holding the medication to obtain another CK level is delaying care.
2. The medication should not be administered if myopathy is suspected.
3. The nurse should not administer the medication.
4. Elevated CK levels could indicate myopathy; if this is suspected, the medication is held and the healthcare provider notified.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for lipid disorders.

MNL Learning Outcome: Examine drugs used for lipid disorders.

15) The nurse is reviewing the different types of lipids with a client. Which lipid type should the nurse identify that is associated with the highest risk for the development of atherosclerosis?

1. Phospholipids
2. Lecithins
3. Steroids
4. Triglycerides

Answer: 3

Explanation:

1. Phospholipids are essential to building plasma membranes. They are not highly implicated in the development of heart disease.
2. Lecithins are phospholipids.
3. Cholesterol is a steroid and is known for its role in promoting atherosclerosis.
4. Triglycerides are the storage form of both saturated fatty acids and unsaturated and omega-3 fatty acids (good fats).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 23-1 Compare and contrast the different types of lipids.

MNL Learning Outcome: Examine drugs used for lipid disorders.

16) The nurse is preparing a teaching tool about lipids. Which type of lipid should the nurse identify that serves as fuel for the body when energy is needed?

1. Phospholipids
2. Triglycerides
3. Steroids
4. Lecithins

Answer: 2

Explanation:

1. Phospholipids are essential to building plasma membranes.
2. Triglycerides are the major storage form of fat in the body and the only type of lipid that serves as an important energy source.
3. Cholesterol is the most widely known steroid and is a vital component of plasma membranes. It serves as a building block of essential biochemicals.
4. Lecithins are phospholipids.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 23-1 Compare and contrast the different types of lipids.

MNL Learning Outcome: Examine drugs used for lipid disorders.

17) A client asks what type of lipid is the "good one." Which response should the nurse make?

1. Triglycerides
2. High-density lipoprotein (HDL)
3. Low-density lipoprotein (LDL)
4. Very low-density lipoprotein (VLDL)

Answer: 2

Explanation:

1. Triglycerides are not lipoproteins; they make up lipoproteins.
2. HDL is considered good because it carries cholesterol away from tissues and to the liver for metabolism and excretion.
3. LDL does contain the most cholesterol, but it does not carry it to the liver for excretion.
4. Through several steps, VLDL is converted to LDL.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 23-2 Compare and contrast the different types of lipoproteins and their transport through the blood.

MNL Learning Outcome: Examine drugs used for lipid disorders.

18) A client asks why high-density lipoprotein (HDL) and low-density lipoprotein (LDL) are

being monitored instead of total cholesterol level. Which response should the nurse make?

1. HDL and LDL monitoring is less expensive than measuring total cholesterol.
2. Total cholesterol does not differentiate the amounts of "good" cholesterol and "bad" cholesterol.
3. HDL and LDL measurements are more general and frequently used to assess clients that are not at risk for heart disease.
4. Total cholesterol measurements are often inaccurate and not as reliable as HDL and LDL.

Answer: 2

Explanation:

1. Gaining more specific information, not associated costs, is the primary reason for monitoring HDL and LDL.
2. Total cholesterol tests include the "good" and "bad" cholesterol and do not indicate the specific amounts of either.
3. HDL and LDL are more specific tests, not more general.
4. Total LDL and HDL tests are as accurate as the equipment and technicians that complete them.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-2 Compare and contrast the different types of lipoproteins and their transport through the blood.

MNL Learning Outcome: Examine drugs used for lipid disorders.

19) The nurse reviews laboratory values for a group of clients. Which laboratory values should the nurse identify that are associated with the highest risk of developing heart disease?

1. Total 200, low-density lipoprotein (LDL) 104, high-density lipoprotein (HDL) 30
2. Total 210, LDL 135, HDL 58
3. Total 220, LDL 162, HDL 20
4. Total 186, LDL 125, HDL 54

Answer: 3

Explanation:

1. Total 200 = borderline high risk; LDL 104 = near or above optimal; HDL 30 = low risk
2. Total 210 = borderline high risk; LDL 135 = borderline high risk; HDL 58 = low risk
3. Total 220 = borderline high risk; LDL 162 = high risk; HDL 20 = low risk
4. Total 186 = desirable; LDL near or above optimal; HDL 54 = desirable

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 23-3 Summarize the links between lipoprotein levels and atherosclerotic cardiovascular disease.

MNL Learning Outcome: Examine drugs used for lipid disorders.

20) The nurse is asked about the use of dietary restrictions to reduce cholesterol. Which response should the nurse make that explains why a significant reduction in cholesterol is unlikely to occur?

1. Most clients are not compliant with the dietary restriction.
2. Cholesterol is found in nearly all foods, and it is not possible to eliminate it from the diet.
3. Cholesterol is made within the body and cannot be absorbed via external sources.
4. The liver reacts to a low-cholesterol diet by making more cholesterol.

Answer: 4

Explanation:

1. Clients wishing to lower their blood cholesterol levels should restrict their intake of cholesterol and saturated fats.
2. Cholesterol is not in all foods.
3. Exogenous sources of cholesterol add to that made in the body.
4. Recent research suggests that the amount of cholesterol consumed is only slightly related to the amount in the blood. The liver reacts to a low-cholesterol diet by making more cholesterol when saturated fats are present. In order to reduce cholesterol levels, the client should reduce intake of saturated fats and refined carbohydrates.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-4 Give examples of how elevated lipid levels can be managed through nonpharmacologic means.

MNL Learning Outcome: Examine drugs used for lipid disorders.

21) A client is prescribed atorvastatin (Lipitor). Which mechanism of action should the nurse explain that lowers cholesterol levels?

1. Binds exogenous cholesterol and excretes it in the feces
2. Increases excretion by activating enzymes within the hepatic system
3. Prevents dietary absorption within the gastrointestinal tract
4. Inhibits an enzyme that is essential for cholesterol synthesis

Answer: 4

Explanation:

1. Bile acid resins bind cholesterol and promote its excretion in the feces.
2. Statins work by inhibiting the enzyme HMG-CoA reductase.
3. Statins work by inhibiting the enzyme HMG-CoA reductase.
4. Statins work by inhibiting the enzyme HMG-CoA reductase.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-5 Explain the mechanism by which statins lower LDL-C levels. MNL Learning Outcome: Examine drugs used for lipid disorders.

22) A client asks if nicotinic acid (Niacin) helps lower blood cholesterol level. Which response should the nurse make?

1. Works primarily by lowering low-density lipoprotein (LDL) and high-density lipoprotein (HDL) levels.
2. Due to adverse effects, niacin should not be used with statins.
3. Niacin may also reduce triglyceride levels.
4. High doses of 25-30 mg per day are often necessary.

Answer: 3

Explanation:

1. Niacin lowers LDL levels and increases HDL levels.
2. It is often used with other drugs like the statins.
3. Niacin also has the effect of reducing triglyceride levels.
4. Niacin is used as a vitamin supplement in doses of 25 mg/day.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 23-8 Identify drugs used to lower triglyceride levels. MNL Learning Outcome: Examine drugs used for lipid disorders.

23) The nurse is preparing a teaching tool about the different types of lipids. Which type should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Triglycerides
2. Phospholipids
3. Steroids
4. Lecithins
5. Bile acids

Answer: 1, 2, 3

Explanation:

1. Triglycerides are the most common classifications of lipids.
2. Phospholipids are a class of lipids essential to building plasma membranes.
3. Steroids are a diverse classification of lipids.
4. Lecithins are not a classification of lipids. Lecithin is the best-known phospholipid.
5. Bile acids are not a classification of lipids. Cholesterol is a building block of bile acids.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 23-1 Compare and contrast the different types of lipids.

MNL Learning Outcome: Examine drugs used for lipid disorders.

24) The nurse instructs a client about fenofibrate (Lofibra). Which client statement indicates that further teaching is required?

1. "I will report a change in the color of my stool."
2. "I will take my prescription on an empty stomach."
3. "I will monitor myself for bruising."
4. "I will report nausea and vomiting to my healthcare provider."

Answer: 2

Explanation:

1. Fenofibrate increases the risk of bleeding. A change in color of the stool should be reported to the healthcare provider.
2. Fenofibrate should be taken with meals to avoid adverse gastrointestinal symptoms.
3. Fenofibrate is a fibric acid drug with a risk of bruising and bleeding.
4. Nausea and vomiting are adverse effects of fenofibrate and should be reported to the healthcare provider to avoid dehydration.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 23-6 Explain the mechanism by which bile acid sequestrants lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

25) The nurse instructs a client about therapeutic lifestyle changes to help control cholesterol levels. Which statement should indicate to the nurse that teaching provided to the client was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I will maintain an optimal weight."
2. "I will implement a medically supervised exercise plan."
3. "I will increase saturated fat in my diet."
4. "I will increase insoluble fiber in my diet."
5. "I will eliminate tobacco use."

Answer: 1, 2, 5

Explanation:

1. Maintaining an optimal weight is a nonpharmacological therapeutic lifestyle change that can control cholesterol levels in the blood.
2. A medically supervised exercise plan is a nonpharmacological therapeutic lifestyle change that can control cholesterol levels in the blood.
3. This statement indicates that the client requires further education, as the client should decrease dietary saturated fats and cholesterol in the diet.
4. It is recommended to increase soluble fiber, not insoluble fiber, in the diet.
5. Eliminating tobacco use is a nonpharmacological therapeutic lifestyle change that can decrease cholesterol levels in the blood.

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Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 23-4 Give examples of how elevated lipid levels can be managed through nonpharmacologic means.

MNL Learning Outcome: Examine drugs used for lipid disorders.

26) The nurse is preparing teaching for a client prescribed a statin. Which serious adverse effect should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Headache
2. Abdominal pain
3. Myopathy
4. Muscle or joint pain
5. Rhabdomyolysis

Answer: 3, 5

Explanation:

1. A headache is an example of a minor adverse effect associated with statins.
2. Abdominal pain is an example of a minor adverse effect associated with statins.
3. Severe myopathy is a rare but serious adverse effect associated with statins.
4. Muscle or joint pain is an example of a minor adverse effect associated with statins.
5. Rhabdomyolysis is an example of a rare but serious adverse effect associated with statins.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 23-5 Explain the mechanism by which statins lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

27) A client is prescribed ezetimibe (Zetia) to improve lipid levels. Which anatomical location should the nurse explain that this medication works to block the absorption of cholesterol?

1. Stomach
2. Gallbladder
3. Liver
4. Jejunum

Answer: 4

Explanation:

1. Ezetimibe (Zetia) does not block the absorption of cholesterol from the stomach.
2. Ezetimibe (Zetia) does not block the absorption of cholesterol from the gallbladder.
3. Ezetimibe (Zetia) does not block the absorption of cholesterol from the liver.
4. Ezetimibe (Zetia) blocks the absorption of cholesterol from the jejunum of the small intestine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-7 Explain why ezetimibe is an important alternative to statins.

MNL Learning Outcome: Examine drugs used for lipid disorders.

28) The nurse is asked about different types of medications to treat elevated lipid levels. Which medication should the nurse identify that is categorized as a fibric acid agent?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Tricor
2. Zetia
3. Lopid
4. Colestid
5. Zocor

Answer: 1, 3

Explanation:

1. Tricor is a fibric acid agent used to decrease blood cholesterol levels.
2. Zetia is an unclassified agent used to decrease blood cholesterol levels.
3. Lopid is a fibric acid agent used to decrease blood cholesterol levels.
4. Colestid is a bile acid sequestrant used to decrease blood cholesterol levels.
5. Zocor is an HMG-CoA reductase medication used to decrease blood cholesterol levels.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 23-6 Explain the mechanism by which bile acid sequestrants lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

29) The nurse is instructing a client about the dietary intake of omega-3 and CoQ10-rich foods to control lipid levels. Which food should the nurse include in the discussion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Sardines
2. Shrimp
3. Almonds
4. Olive oil
5. Carrots

Answer: 1, 3, 4

Explanation:

1. Sardines are high in these nutrients.
2. Shrimp are not particularly high in these nutrients.
3. Nuts such as almonds are high in these nutrients.
4. Olive and canola oils are high in these nutrients.
5. Carrots are not high in these nutrients.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 23-4 Give examples of how elevated lipid levels can be managed through nonpharmacologic means.

MNL Learning Outcome: Examine drugs used for lipid disorders.

30) A client is prescribed gemfibrozil (Lopid). Which laboratory test should the nurse anticipate the client will need scheduled for the next appointment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Blood glucose
2. Liver enzymes
3. Potassium
4. Hemoglobin and hematocrit
5. Urinalysis

Answer: 1, 2, 4

Explanation:

1. Gemfibrozil (Lopid) may affect serum glucose levels.
2. Gemfibrozil (Lopid) may affect liver enzyme levels.
3. Potassium level should not be affected by gemfibrozil (Lopid).
4. Gemfibrozil (Lopid) may affect the hemoglobin and hematocrit.
5. A urinalysis is unnecessary.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 23-6 Explain the mechanism by which bile acid sequestrants lower LDL-C levels.

MNL Learning Outcome: Examine drugs used for lipid disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 24 Diuretic Therapy and Drugs for Chronic Kidney Disease**

1) The nurse instructs a client about the function of the renal system. Which client statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Kidneys help the heart by balancing potassium."
2. "Kidneys balance the fluid and electrolytes in my body."
3. "Kidneys keep blood pressure from getting too low."
4. "Kidneys help decrease infections by excreting bacteria."
5. "Kidneys help regulate the oxygen levels in my blood."

Answer: 1, 2, 3

Explanation:

1. The kidneys are the primary organs for regulating potassium balance.
2. The kidneys are the primary organs for regulating fluid and electrolyte balance.
3. They secrete renin, which helps to regulate blood pressure.
4. The kidneys do not have any impact on bacterial infections.
5. The kidneys do not affect serum oxygen levels.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 24-1 Explain the primary functions of the kidneys.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

2) The nurse is caring for a client with renal failure. Which safety precaution should the nurse implement when giving medications to this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client will require lower dosages.
2. Some prescriptions increase fluid retention.
3. Measure hourly intake and output.
4. Some prescriptions are nephrotoxic.
5. Some prescriptions are bound to plasma proteins.

Answer: 1, 3, 4

Explanation:

1. A client with renal failure may require a decreased dosage of the prescription to prevent toxicity. The renal system is impaired and cannot effectively clear the drugs from the client's system.
2. Increased fluid retention affects the cardiovascular system.
3. Ensuring there is adequate output is a primary treatment goal for a client with renal failure.
4. A client with renal failure should not be administered nephrotoxic drugs.
5. Prescriptions that are bound to plasma proteins are unable to pass through the pores of the glomerulus and enter the filtrate; therefore, they will continue to circulate in the blood. This is not a safety precaution for a client with renal failure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-3 Describe the diagnosis and management of chronic kidney disease.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

3) A client has protein in a urine specimen. Which condition should the nurse suspect is occurring in this client?

1. Acute kidney injury
2. Structural damage
3. Kidney infection
4. Chronic kidney injury

Answer: 2

Explanation:

1. A urinalysis is not used to diagnose an acute kidney injury.
2. When filtrate passes through Bowman's capsule, its composition is similar to plasma. Plasma proteins are too large to pass through the filter and, if they appear in the filtrate or urine, this indicates kidney pathology. Proteinuria and albuminuria are the primary measurement for structural kidney damage.
3. Proteinuria is not a diagnosis for a kidney infection.
4. A urinalysis is not used to diagnose a chronic kidney injury.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-1 Explain the primary functions of the kidneys.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

4) The nurse is asked the health problems for which a diuretic is used to treat. Which condition should the nurse identify?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Heart failure
2. Cerebrovascular accident
3. Hypertension
4. Acute kidney injury
5. Ketoacidosis

Answer: 1, 3, 4

Explanation:

1. A diuretic is a drug that increases the rate of urine flow. The goal of most diuretic therapy is to reverse abnormal fluid retention by the body. Excretion of excess fluid from the body is particularly desirable in clients with heart failure.

2. Diuretics are not necessarily prescribed for a client with a cerebrovascular accident.

3. A diuretic is a drug that increases the rate of urine flow. The goal of most diuretic therapy is to reverse abnormal fluid retention by the body. Excretion of excess fluid from the body is particularly desirable in clients with hypertension.

4. A diuretic is a drug that increases the rate of urine flow. The goal of most diuretic therapy is to reverse abnormal fluid retention by the body. Excretion of excess fluid from the body is particularly desirable in clients with acute kidney injury.

5. Diuretics are not prescribed for a client with ketoacidosis; this client requires fluid replacement.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-4 Explain the mechanisms of action of diuretics and how these drugs are classified.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

5) The nurse suspects a client receiving chlorothiazide (Diuril) is experiencing side effects from the medication. Which assessment finding supports the nurse's suspicion?

1. Ataxia and frequent diarrhea
2. Serum potassium level of 3.0 mEq/L and low blood pressure
3. Serum sodium level of 160 mEq/L and headaches
4. Mental confusion and dependent edema

Answer: 2

Explanation:

1. Ataxia and frequent diarrhea are not side effects of diuretic therapy.
2. The normal laboratory value for potassium is 3.5—5.0 mEq/L. Hypokalemia and hypotension are serious side effects of diuretic therapy.
3. The normal laboratory value for sodium is 135—145 mEq/L. Hyponatremia and headaches are not side effects of diuretic therapy.
4. Mental confusion and dependent edema are not side effects of diuretic therapy.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-4 Explain the mechanisms of action of diuretics and how these drugs are classified.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

6) A client prescribed bumetanide (Bumex) asks how the drug works. Which response should the nurse make to the client?

1. "This prescription causes your kidneys to reabsorb potassium."
2. "This prescription causes your kidneys to block the reabsorption of sodium."
3. "This prescription causes your kidneys to reabsorb calcium."
4. "This prescription causes your kidneys to reabsorb chloride."

Answer: 2

Explanation:

1. Bumetanide is a potassium-excreting drug.
2. Bumetanide blocks reabsorption of sodium.
3. Bumetanide does not reabsorb calcium.
4. Bumetanide does not affect chloride levels.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

7) A client with chronic renal failure is taking hydrochlorothiazide (HCTZ). Which assessment finding indicates the treatment is ineffective?

1. Weak pulses
2. Hypotension
3. Poor skin turgor
4. Wheezing

Answer: 4

Explanation:

1. The diuretic is prescribed to treat fluid retention. Findings associated with ineffective treatment would include bounding pulses.
2. The diuretic is prescribed to treat fluid retention. Findings associated with ineffective treatment would include hypertension.
3. The diuretic is prescribed to treat fluid retention. Findings associated with ineffective treatment do not include poor skin turgor.
4. Wheezes are commonly auscultated with pulmonary edema, which can occur with chronic renal failure and fluid retention.

Page Ref: 324

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

8) The nurse provides dietary teaching with a client prescribed spironolactone (Aldactone). Which statement made by the client indicates further teaching is required?

1. "I am really happy that I can have my cranberry juice."
2. "I can still have my orange juice and bananas for breakfast."
3. "I usually eat an apple a day to stay regular."
4. "I love to eat eggs and toast in the morning."

Answer: 2

Explanation:

1. Cranberries are low in potassium and are not contraindicated with a potassium-sparing diuretic.
2. Orange juice and bananas are high in potassium and are contraindicated with a potassium-sparing diuretic.
3. Apples are low in potassium and are not contraindicated with a potassium-sparing diuretic.
4. Eggs and toast are low in potassium and are not contraindicated with a potassium-sparing diuretic.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

9) An older client is prescribed chlorothiazide (Diuril). Which information should the nurse include when teaching the client about this medication?

1. "Take the medication early in the morning."
2. "Avoid foods that are high in potassium."
3. "It is alright to have a glass of wine with this medication."
4. "Take the medication on an empty stomach."

Answer: 1

Explanation:

1. Older patients should take diuretics early in the morning to avoid nocturia.
2. Chlorothiazide (Diuril) is a potassium-excreting drug, and foods high in potassium should be encouraged.
3. Alcohol can potentiate the hypotensive effects of chlorothiazide and should be avoided, especially in older adults.
4. Absorption of chlorothiazide (Diuril) is decreased when taken on an empty stomach.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

10) A client prescribed spironolactone (Aldactone) asks which fluids to drink to prevent dehydration. Which response should the nurse provide?

1. "Citrus juices are very good for rehydration."
2. "Any kind of fluid is okay, but avoid alcohol."
3. "Plain water is really the best."
4. "Electrolyte-replacement drinks like sports drinks."

Answer: 3

Explanation:

1. Citrus juices contain potassium, which should be avoided by those taking potassium-sparing diuretics.
2. "Any kind of fluid" is not a correct answer as some fluids are better than others.
3. Plain water is the best fluid for the client to consume while receiving diuretic therapy.
4. Electrolyte-replacement drinks like sports drinks are not as good as plain water in avoiding dehydration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

11) A client receiving chlorothiazide (Diuril) has developed hypokalemia. Which assessment finding supports the diagnosis?

1. Hyperglycemia
2. Heart palpitations
3. Increased urine output
4. Diarrhea

Answer: 2

Explanation:

1. Hypoglycemia is associated with hypokalemia.
2. Heart palpitations is a symptom of hypokalemia.
3. Increased urine output is not a symptom of hypokalemia.
4. Diarrhea is not a symptom of hypokalemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

12) The nurse is preparing a teaching tool about nephrotoxic agents. Which medication should the nurse identify is nephrotoxic if an overdose occurs?

1. Lorazepam (Ativan)
2. Amitriptyline (Elavil)
3. Ibuprofen (Advil)
4. Quetiapine (Seroquel)

Answer: 3

Explanation:

1. An overdose of lorazepam will result in central nervous system depression, not nephrotoxicity.
2. Amitriptyline is cardiotoxic.
3. Nonsteroidal anti-inflammatory drugs, such as ibuprofen, are nephrotoxic drugs.
4. An overdose of quetiapine will result in central nervous system depression, not nephrotoxicity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 24-1 Explain the primary functions of the kidneys.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

13) The nurse is preparing teaching for a client prescribed chlorothiazide (Diuril). Which information should the nurse include in the teaching?

1. Consumption of foods high in potassium
2. Assessment of blood glucose daily
3. Daily weights with a report of a gain of more than 1 pound in 24 hours
4. Report a change in hearing

Answer: 1

Explanation:

1. Clients receiving thiazide diuretics should consume foods high in potassium.
2. Although chlorothiazide can cause hyperglycemia, there is no indication to assess the blood glucose daily because the client is not a diabetic.
3. The client should be instructed to weigh themselves daily and report a weight gain of greater than 2 lbs. in 24 hours.
4. Chlorothiazide is not ototoxic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

14) An older adult taking ethacrynic acid (Edecrin) reports a change in hearing. Which statement should the nurse include in the response?

1. "You may be dehydrated; are you drinking enough fluid?"
2. "I will let your healthcare provider know about this; it could be a side effect of your medication."
3. "How long have you been having difficulty hearing?"
4. "I will schedule a hearing exam; this could be a side effect of your medication."

Answer: 2

Explanation:

1. Ototoxicity is not related to dehydration.
2. Loop diuretics are ototoxic. Instruct the client to report ringing in the ears or becoming "hard of hearing" and notify the healthcare provider.
3. Asking the client about how long hearing loss has occurred is a good question, but the nurse must always report suspected side effects to the healthcare provider.
4. It is beyond the nurse's scope of practice to prescribe hearing examinations.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

15) A client is taking spironolactone (Aldactone). For which adverse effect should the nurse monitor the client?

1. Pancytopenia
2. Aplastic anemia
3. Hyperkalemia
4. Hyponatremia

Answer: 3

Explanation:

1. Spironolactone does not place the client at risk for pancytopenia.
2. Spironolactone does not place the client at risk for aplastic anemia.
3. Spironolactone predisposes the patient to the risk of hyperkalemia.
4. Spironolactone does not place the client at risk for hyponatremia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

16) The nurse is asked to explain the anatomy of the kidney. Which structure should the nurse identify as the primary functional unit of the kidney?

1. Loop of Henle
2. Bowman's capsule
3. Nephron
4. Distal tubule

Answer: 3

Explanation:

1. The loop of Henle filters ions.
2. The Bowman's capsule filters the blood.
3. The nephron is the functional unit, which initially receives blood through the large renal arteries.
4. The distal tubule passes filtrate.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-2 Explain the processes that change the composition of filtrate as it travels through the nephron.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

17) A client is prescribed a loop diuretic. Which food should the nurse recommend the client

consume?

1. Meat
2. Bananas
3. Cheese
4. Yogurt

Answer: 2

Explanation:

1. Meat provides protein but not much potassium.
2. Bananas are a great source of potassium. Other foods high in potassium include green leafy vegetables.
3. Cheese is a good source of calcium.
4. Yogurt is a good source of calcium.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

18) The nurse is caring for a client taking a diuretic. For which general adverse effect should the nurse monitor the client?

1. Constipation
2. Orthostatic hypotension
3. Weight gain
4. Hypertension

Answer: 2

Explanation:

1. Diarrhea can occur as a result of the use of diuretics.
2. Orthostatic hypotension is a common adverse effect of all the prototype drugs.
3. Weight loss will occur with the use of diuretics.
4. The development of hypertension is not associated with the use of diuretics.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-4 Explain the mechanisms of action of diuretics and how these drugs are classified.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

19) The nurse is reviewing the medical history of a client prescribed hydrochlorothiazide

(Microzide). Which condition should the nurse be concerned about?

1. Hypertension
2. Asthma
3. Gout
4. Hypothyroidism

Answer: 3

Explanation:

1. Hydrochlorothiazide is the most widely prescribed drug for hypertension.
2. The use of hydrochlorothiazide is not contraindicated for a client with asthma.
3. The use of hydrochlorothiazide may precipitate gout attacks due to its tendency to cause hyperuricemia.
4. The use of hydrochlorothiazide is not contraindicated for a client with hypothyroidism.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

20) A client has overdosed on hydrochlorothiazide. Which initial treatment should the nurse anticipate being prescribed?

1. Electrolyte replacement
2. Intravenous normal saline
3. Vasopressor
4. Furosemide (Lasix)

Answer: 2

Explanation:

1. Electrolyte replacement is not the initial treatment for a client that has overdosed on hydrochlorothiazide.
2. An overdose is manifested as electrolyte depletion, which is initially treated with an infusion of normal saline. Infusion of fluids will also prevent dehydration and hypotension.
3. A vasopressor such as norepinephrine may be necessary to administer for an overdose of furosemide (Lasix) or spironolactone (Aldactone).
4. Furosemide (Lasix) is a loop diuretic that if administered for an overdose of hydrochlorothiazide would worsen the client's condition.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

21) The nurse is caring for a client with heart failure. Which diuretic should the nurse anticipate being prescribed to reduce the risk of mortality?

1. Chlorothiazide (Diuril)
2. Acetazolamide (Diamox)
3. Furosemide (Lasix)
4. Spironolactone (Aldactone)

Answer: 4

Explanation:

1. Chlorothiazide is a thiazide diuretic used primarily for hypertension.
2. Acetazolamide is a carbonic anhydrase inhibitor used primarily for clients with glaucoma.
3. Furosemide is used for hypertension and reduction of edema.
4. Spironolactone has been found to significantly reduce mortality in clients with heart failure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 24-4 Explain the mechanisms of action of diuretics and how these drugs are classified.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

22) The nurse instructs a client with diabetes type I about the medication hydrochlorothiazide (Microzide). Which client statement should indicate to the nurse that teaching was effective?

1. "I expect my blood glucose to be elevated."
2. "I anticipate monitoring my blood glucose more frequently."
3. "I can expect my hemoglobin A1C to be elevated."
4. "I expect I will need more insulin to help control my glucose."

Answer: 1

Explanation:

1. Blood glucose elevation is an adverse effect of hydrochlorothiazide. Consistent elevation should be reported to the healthcare provider.
2. Blood glucose should be monitored more frequently.
3. Hydrochlorothiazide does not affect the hemoglobin A1C.
4. The healthcare provider will evaluate the adverse effect of elevated glucose and collaborate with the client to determine the safest treatment.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

23) The nurse is caring for a client with acute renal failure. Which body function should the nurse expect to be altered in the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fluid balance
2. Electrolyte balance
3. The pH of body fluids
4. Heart rate
5. Blood pressure

Answer: 1, 2, 3, 5

Explanation:

1. The kidneys are the primary organs for regulating fluid balance through filtration and urine output.
2. The kidneys are the primary organs for regulating electrolyte composition through filtration and urine output.
3. The kidneys are the primary organ for regulating the pH of body fluids through filtration and urine output.
4. The kidneys do not play a direct role in regulating the heart rate.
5. The kidneys play a role in regulating blood pressure through the secretion of renin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-1 Explain the primary functions of the kidneys.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

24) A client is diagnosed with chronic kidney disease (CKD). Which condition should the nurse recognize is associated with this health problem?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hypertension
2. Inflammation
3. Diabetes
4. Hypoperfusion
5. Sepsis

Answer: 1, 3

Explanation:

1. CKD develops over a period of months or years. Over half of the clients with CKD have a medical history of longstanding hypertension or diabetes mellitus.
2. Acute kidney injury (AKI) can result from inflammation.
3. Longstanding diabetes is associated with CKD.
4. The most frequent cause of AKI is renal hypoperfusion, the lack of sufficient blood flow through the kidneys.
5. AKI can result from sepsis.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-2 Explain the processes that change the composition of filtrate as it travels through the nephron.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

25) The nurse is asked which diuretics do not require potassium supplementation. Which diuretic should the nurse say in response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Furosemide (Lasix)
2. Chlorothiazide (Diuril)
3. Amiloride (Midamor)
4. Mannitol (Osmitol)
5. Spironolactone (Aldactone)

Answer: 3, 5

Explanation:

1. Furosemide (Lasix) is a loop diuretic that often causes hypokalemia. Clients taking furosemide are encouraged to eat foods high in potassium or take a potassium supplement.
2. Chlorothiazide (Diuril) is a thiazide diuretic that often causes hypokalemia. Clients taking chlorothiazide are encouraged to eat foods high in potassium or take a potassium supplement.
3. Amiloride (Midamor) is a potassium-sparing diuretic; therefore, clients do not need to eat foods high in potassium or take a potassium supplement while on this medication.
4. Mannitol (Osmitol) is an osmotic diuretic that causes hypokalemia. A client should be instructed to take a potassium supplement.
5. Spironolactone (Aldactone) is a potassium-sparing diuretic. Clients on this medication are not required to eat foods high in potassium or take a potassium supplement.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 24-5 Compare and contrast the loop, thiazide, potassium-sparing, and osmotic diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

26) The nurse provides dietary education for a client prescribed furosemide (Lasix). Which client statement indicates that teaching was effective?

1. "I will increase my consumption of green leafy vegetables."
2. "I will increase my consumption of poultry."
3. "I will try and eat an orange daily."
4. "I will try and incorporate more grains in my diet."

Answer: 3

Explanation:

1. Loop diuretics place the client at risk for hypokalemia. Green leafy vegetables are a good source of iron but not of potassium.
2. Loop diuretics place the client at risk for hypokalemia. Poultry is not a good source of potassium.
3. Loop diuretics place the client at risk for hypokalemia. Citrus fruits are a good source of potassium.
4. Loop diuretics place the client at risk for hypokalemia. Dried grains are a great source of fiber but are not high in potassium.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

27) A client is prescribed a diuretic. Which vital signs should the nurse assess prior to providing the medication to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Temperature
2. Pulse
3. Respirations
4. Blood pressure
5. Pain

Answer: 2, 4

Explanation:

1. It is not necessary to assess temperature prior to administering a diuretic.
2. The nurse must assess the client's pulse prior to administering a diuretic.
3. It is not necessary to assess respirations prior to administering a diuretic.
4. The nurse must assess the client's blood pressure prior to administering a diuretic.
5. It is not necessary to assess the client's pain prior to administering a diuretic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

28) The nurse is instructing a client with heart failure taking a diuretic on daily self-monitoring. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Weight
2. Pulse
3. Temperature
4. Blood pressure
5. Respiratory rate

Answer: 1, 2, 4

Explanation:

1. It is essential that the client measure and record weight daily to monitor for fluid loss or retention.
2. It is essential that the client measure and record the pulse daily to determine the effectiveness of the medication therapy.
3. There is no need for the client to measure and record a daily temperature while taking a diuretic.
4. It is essential that the client measure and record daily blood pressure to determine the effectiveness of the medication therapy.
5. There is no need for the client to measure and record a daily respiratory rate while taking a diuretic.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 24-6 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy with diuretics.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

29) The nurse reviews the physiology of the renal system with a graduate nurse. Which statement indicates additional teaching is required?

1. "The kidneys stimulate white blood cell production."
2. "The kidneys help regulate blood pressure."
3. "The kidneys regulate the acid—base balance of body fluids."
4. "The kidneys produce the active form of vitamin D."

Answer: 1

Explanation:

1. The kidneys do not stimulate white blood cell production; however, they secrete erythropoietin, which stimulates red blood cell production.
2. The kidneys secrete the enzyme renin, which helps regulate blood pressure.
3. The kidneys regulate the acid—base balance of body fluids.
4. The kidneys produce calcitriol, the active form of vitamin D.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 24-1 Explain the primary functions of the kidneys.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

30) The nurse is reviewing the laboratory reports for a client with chronic kidney failure. Which value should the nurse understand reflects the progression of kidney disease?

1. Glomerular filtration rate (GFR)
2. Serum creatinine
3. Blood urea nitrogen (BUN)
4. Urinalysis

Answer: 1

Explanation:

1. The GFR reflects the decline in nephrons and is used to predict the onset and progression of kidney disease.
2. The serum creatinine reflects the buildup of nitrogen waste products in the blood.
3. The BUN reflects the buildup of nitrogen waste products in the blood.
4. A urinalysis is an assessment of the urine for the presence of blood cells, proteins, pH, specific gravity, ketones, glucose, and microorganisms.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 24-2 Explain the processes that change the composition of filtrate as it travels through the nephron.

MNL Learning Outcome: Examine drugs used for diuretic therapy and chronic kidney disease.

***Pharmacology for Nurses, 7e (Adams)***

**Chapter 25 Drugs for Fluid Balance, Electrolyte, and Acid—Base Disorders**

1) A client's arterial blood gas levels indicate respiratory alkalosis. Which cause should the nurse associate with this finding?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hyperventilation
2. Severe diarrhea
3. Severe vomiting
4. High altitude
5. Excess alcohol ingestion

Answer: 1, 4

Explanation:

1. Hyperventilation can result in respiratory alkalosis.
2. Severe diarrhea is associated with metabolic acidosis.
3. Severe vomiting results in metabolic alkalosis.
4. High altitude can result in respiratory alkalosis.
5. Excess alcohol ingestion is associated with metabolic acidosis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-10 Identify the causes and treatment of alkalosis.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

2) A client receiving sodium bicarbonate intravenously for correction of metabolic acidosis is experiencing cyanosis, decreased respirations, and an irregular pulse. Which action should the nurse take?

1. Increase the rate of the infusion.
2. Decrease the rate of the infusion.
3. Continue the infusion.
4. Stop the infusion and notify the healthcare provider.

Answer: 4

Explanation:

1. The client is not in acidosis, and the infusion should not be increased.
2. Slowing the infusion is not sufficient.
3. The client is not in acidosis; symptoms of acidosis include lethargy, confusion, central nervous system depression leading to coma, and a deep, rapid respiration rate that indicates an attempt by the lungs to rid the body of excess acid.
4. The client receiving sodium bicarbonate is prone to alkalosis; monitor for cyanosis, slow respirations, and irregular pulse. The client's symptoms indicate alkalosis, so infusion must be stopped and the healthcare provider notified.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 25-9 Identify the causes and treatment of acidosis.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

3) A client sustains burns over 40% of the body. For which reason should the nurse expect intravenous (IV) fluid replacement to be prescribed?

1. Administers antibiotics.
2. Maintains blood pressure.
3. Replaces electrolytes.
4. Administers pain prescriptions.

Answer: 2

Explanation:

1. Antibiotic administration is not the primary purpose for IV fluid replacement for a client that has a burn injury.
2. Net loss of fluids from the body can result in dehydration and shock. IV fluid therapy is used to maintain blood pressure.
3. Electrolyte replacement is not the primary purpose for IV fluid replacement for a client that has a burn injury.
4. Administration of pain prescriptions is not the primary purpose for IV fluid replacement for a client that has a burn injury.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

4) The nurse is asked a question about intravenous fluids. Which solution should the nurse identify that is a crystalloid isotonic solution?

1. Lactated Ringer
2. 5% albumin
3. Dextran 70 in normal saline (NS)
4. Hetastarch 6% in NS

Answer: 1

Explanation:

1. Lactated Ringer is a crystalloid isotonic solution.
2. 5% albumin is a colloid isotonic solution.
3. Dextran 70 in NS is a colloid isotonic solution.
4. Hetastarch 6% in NS is a colloid isotonic solution.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-2 Explain how changes in the osmolality or tonicity of a fluid can cause water to move between fluid compartments.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

5) A client is dehydrated with a stable blood pressure. Which intravenous solution should the nurse anticipate prescribed for this client?

1. D5 0.45% normal saline (NS)
2. 5% dextrose in NS
3. 0.45% sodium chloride (NaCl)
4. 0.9% NaCl

Answer: 3

Explanation:

1. D5 0.45% NS is a hypertonic solution that expands the plasma volume. The client requires a hypotonic solution.
2. 5% dextrose in NS is a hypertonic solution that expands the plasma volume. The client requires a hypotonic solution.
3. 0.45% NaCl is a hypotonic solution. This will cause fluid to shift from plasma to the tissues and cells in the intravascular compartment. Hypotonic solutions are indicated for clients who are dehydrated with normal blood pressure.
4. 0.9% NaCl is an isotonic solution that expands circulating intravascular volume. The client requires a hypotonic solution.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

6) A client has a serum sodium level of 125 mEq/L. Which treatment should the nurse anticipate being prescribed for this client?

1. Encourage the client to drink fluids.
2. Administer normal saline intravenously.
3. Administer 0.45% sodium chloride (NaCl).
4. Provide a diet high in NaCl.

Answer: 2

Explanation:

1. The client requires intravenous (IV) fluids at this point, not oral fluids.
2. Hyponatremia is a serum sodium level less than 135 mEq/L. Hyponatremia caused by sodium loss may be treated with IV fluids containing salt, such as normal saline.
3. 0.45% NaCl is a hypotonic solution and will further lower the serum sodium.
4. A diet high in sodium is not appropriate to quickly restore the serum sodium level.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-6 Explain the pharmacotherapy of sodium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

7) A client with a potassium level of 5.9 mEq/L is prescribed glucose and insulin. Which statement should the nurse include in the client's education?

1. "Insulin will cause extra potassium to go into cells and lower the blood level."
2. "Insulin lowers blood sugar levels and this is how the extra potassium is excreted."
3. "Insulin is safer than giving laxatives such as Kayexalate."
4. "Insulin will help kidneys excrete the extra potassium."

Answer: 1

Explanation:

1. Serum potassium levels may be temporarily lowered by administering glucose and insulin, which cause potassium to leave the extracellular fluid and enter cells.
2. Serum potassium is lowered by entering the cells; this is not controlled by serum glucose.
3. Administering insulin to decrease serum potassium levels is not considered a safer method than giving Kayexalate.
4. Insulin does not promote renal excretion of potassium.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.  
MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

8) The nurse is preparing a teaching tool about body fluid compartments. Which percentage of body weight should the nurse highlight in the intracellular fluid compartment?

1. 20%
2. 40%
3. 60%
4. 80%

Answer: 3

Explanation:

1. The extracellular fluid compartment contains fluid equal to 20% of body weight.
2. The cells that make up the intracellular fluid compartment do not hold fluid equal to 40% of body weight.
3. The cells that make up the intracellular fluid compartment hold fluid equal to 60% of body weight.
4. The cells that make up the intracellular fluid compartment do not hold fluid equal to 80% of body weight.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 25-1 Identify the various fluid compartments in the body.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

9) A client receiving dextran 40 (Gentran 40) begins experiencing tachycardia, dyspnea, and a cough. Which condition should the nurse suspect is causing the client's symptoms?

1. Pulmonary edema
2. Renal failure
3. Allergic reaction
4. Fluid overload

Answer: 4

Explanation:

1. Pulmonary edema results from too rapid of an infusion.
2. The client's symptoms do not indicate kidney failure.
3. An allergy is manifested by urticaria.
4. Fluid overload is caused by a rate of infusion that is too rapid. Signs of fluid overload include tachycardia, peripheral edema, distended neck veins, dyspnea, and cough.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

10) A client is prescribed intravenous potassium chloride (KCl). Which outcome should the nurse expect if this medication is given via intravenous push (IVP)?

1. Cardiac arrest
2. Hypernatremia
3. Respiratory distress
4. Seizures

Answer: 1

Explanation:

1. Potassium chloride must never be administered via IVP, as bolus injections can overload the heart and cause cardiac arrest.
2. Hypernatremia is not a potential outcome with the IVP of potassium chloride.
3. Respiratory distress is not an initial potential outcome with the IVP of potassium chloride.
4. Seizures are not an initial potential outcome with the IVP of potassium chloride.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

11) A client with a nasogastric tube is prescribed potassium chloride. Which intervention should the nurse include when giving this medication?

1. Dilute the drug prior to administration through the nasogastric tube.
2. Flush the nasogastric tube with a cola soda before and after administration.
3. Flush the nasogastric tube with normal saline before and after administration.
4. Crush the tablet prior to administration through the nasogastric tube.

Answer: 1

Explanation:

1. Liquid forms of potassium chloride must be diluted prior to administration through a nasogastric tube to decrease gastrointestinal distress.
2. Flushing the tube with a cola soda is an outdated practice and should not be performed.
3. Flushing the tube before and after administration of the drug is important, but the drug must still be diluted to decrease gastrointestinal distress.
4. Potassium chloride should never be crushed. A client with a nasogastric tube will be prescribed a liquid form of potassium chloride.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

12) A client has overdosed on aspirin. For which reason should the nurse anticipate sodium bicarbonate to be prescribed for this client?

1. Prevents ulceration of the gastrointestinal tract.
2. Prevents bleeding.
3. Promotes renal excretion.
4. Promotes detoxification in the liver.

Answer: 3

Explanation:

1. Sodium bicarbonate does not prevent ulceration of the gastrointestinal tract.
2. Sodium bicarbonate does not prevent bleeding.
3. Sodium bicarbonate provides a base that aids in the renal excretion of acidic drugs such as aspirin.
4. Sodium bicarbonate does not promote liver detoxification.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-9 Identify the causes and treatment of acidosis.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

13) A client is receiving intravenous albumin. Which assessments should the nurse make a priority for this client?

1. Blood pressure and urinary output
2. Urinary output and pupil response
3. Blood pressure and level of pain
4. Urinary output and nausea and/or vomiting

Answer: 1

Explanation:

1. During fluid replacement therapy, the nurse must assess for fluid volume deficit and fluid volume excess. This is commonly done by assessment of blood pressure and urinary output.
2. Pupil response is not a priority assessment.
3. Level of pain is not a priority assessment.
4. Nausea and/or vomiting is not the priority assessment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts:

Nursing Process: Assessment

Learning Outcome: 25-11 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for fluid balance, electrolyte, and acid—base disorders.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

14) A client is receiving dextran 40. Which adverse effect should the nurse instruct the client to report?

1. Ototoxicity
2. Diarrhea
3. Difficulty urinating
4. Unexplained cough

Answer: 4

Explanation:

1. Ototoxicity is not an adverse effect associated with dextran 40.
2. Diarrhea is not an adverse effect associated with dextran 40.
3. Difficulty urinating is not an adverse effect associated with dextran 40.
4. An unexplained cough should be reported immediately as this could be related to a fluid overload.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

15) The nurse is teaching a client about replacing sodium after strenuous exercise. Which information should the nurse include?

1. Increase salt in the meals prior to exercising.
2. Avoid exercising in the outdoor heat.
3. Take one salt tablet prior to strenuous exercise.
4. After exercising drink plenty of water.

Answer: 4

Explanation:

1. Increasing salt intake prior to exercising is not necessary.
2. It is not necessary to avoid exercising in the outdoor heat.
3. Salt tablets can increase the risk of hypernatremia.
4. Heat-related problems can be best avoided by consuming adequate amounts of water.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 25-11 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for fluid balance, electrolyte, and acid—base disorders.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

16) The nurse is caring for a group of clients. For which condition should the nurse anticipate the healthcare provider to prescribe intravenous (IV) fluid therapy?

1. Orthostatic hypotension
2. Pulmonary edema
3. Fluid output exceeds intake
4. Fluid intake of 2500 mL/day

Answer: 3

Explanation:

1. Orthostatic hypotension does not necessarily require IV fluid therapy. The treatment and interventions are based on the causative factor.
2. Pulmonary edema does not require IV fluid replacement.
3. Intake and output imbalance may require IV fluid therapy to correct the imbalance.
4. Fluid intake of 2500 mL/day is the average intake for adults.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-3 Describe the primary organs and hormones responsible for maintaining normal fluid balance.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

17) A client with hyperkalemia is experiencing constipation. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase fluid intake.
2. Include prune juice in your daily fluids.
3. Add fruits and vegetables to the diet.
4. Increase activity such as walking.
5. Use salt substitutes to reduce the sodium level.

Answer: 1, 4

Explanation:

1. The client should be instructed to increase water intake to avoid drinking fluids that may contain potassium.
2. Prunes are high in potassium and should be avoided.
3. Many fruits and vegetables are high in potassium. More specific instruction should be provided.
4. Exercise, such as walking, may stimulate the bowels.
5. Salt substitutes are often high in potassium and should be avoided.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

18) A client is prescribed intravenous dextran 40. Which action should the nurse take when starting this infusion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Start the infusion no faster than 240 mg/min.
2. Monitor the patient's vital signs continuously during administration.
3. Monitor for signs of anaphylaxis.
4. Monitor the client for deep vein thrombosis.
5. Discard any unused portion of the infusion.

Answer: 1, 2, 3, 5

Explanation:

1. Nonemergency infusion should not be faster than 240 mg/min. In an emergency, the rate is increased to 1.2 to 2.4 g/min.
2. Hypertension may occur, so vital signs must be continuously monitored.
3. Some clients may have an anaphylactic reaction to the prescription.
4. Dextran 40 reduces platelet adhesiveness and improves blood flow through its ability to reduce blood viscosity. These properties have led to its use in preventing deep vein thrombosis and postoperative emboli.
5. There is no preservative in the preparation, so unused portions must be discarded.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

19) The nurse reviews laboratory values for a client. Which serum sodium level should the nurse recognize as hyponatremia?

1. 137 mEq/mL
2. 140 mEq/mL
3. 133 mEq/mL
4. 145 mEq/mL

Answer: 3

Explanation:

1. A serum sodium of 137 mEq/mL is normal.
2. A serum sodium of 140 mEq/mL is normal.
3. A serum sodium of 133 mEq/mL indicates hyponatremia.
4. A serum sodium of 145 mEq/mL is normal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-5 Explain the importance of electrolyte balance in the body.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

20) A client is diagnosed with hypokalemia. Which finding should the nurse expect to assess in this client?

1. Constipation
2. Hypertension
3. Muscle weakness
4. Weight gain

Answer: 3

Explanation:

1. Diarrhea is a symptom of hypokalemia.
2. Hypertension is usually not a sign of hypokalemia.
3. Muscle weakness can occur, since muscle fibers are very sensitive to changes in potassium.
4. Weight gain is usually not a sign of hypokalemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-5 Explain the importance of electrolyte balance in the body.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

21) The nurse reviews acid—base balance in the body. Which primary buffers should the nurse identify that help maintain a normal body pH?

1. Sodium and calcium ions
2. Sodium and bicarbonate ions
3. Bicarbonate and phosphate ions
4. Potassium and phosphate ions

Answer: 3

Explanation:

1. Sodium and calcium are electrolytes.
2. Sodium is an electrolyte.
3. Bicarbonate and phosphate are the two primary buffers of pH balances.
4. Potassium is an electrolyte.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-8 Explain the importance of buffers in maintaining normal acid—base balance.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

22) A client is being evaluated for respiratory alkalosis. Which finding should the nurse recognize as a potential cause for this condition?

1. Hypotension
2. Hypertension
3. Hypoventilation
4. Hyperventilation

Answer: 4

Explanation:

1. Hypotension is unrelated to respiratory alkalosis.
2. Hypertension is unrelated to respiratory alkalosis.
3. Hypoventilation is associated with respiratory acidosis.
4. Hyperventilation occurs with respiratory alkalosis.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-10 Identify the causes and treatment of alkalosis.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

23) A client is demonstrating signs of a fluid imbalance. For which condition should the nurse anticipate intravenous (IV) fluid therapy to be prescribed?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Constipation
2. Postoperative nausea and vomiting
3. Severe burn
4. Congestive heart failure
5. Diabetic ketoacidosis

Answer: 2, 3, 5

Explanation:

1. A client with constipation does not require IV fluid therapy to correct a fluid imbalance.
2. A client with nausea and vomiting after surgery may require IV fluid to avoid dehydration.
3. A client with a severe burn will require IV fluid to correct the fluid depletion.
4. A client with congestive heart failure retains fluid and is usually placed on fluid restriction.
5. A client with diabetic ketoacidosis requires IV fluid administration to correct the fluid depletion.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

24) The nurse is asked to explain the movement of body fluids. Which statement should the nurse include when referring to tonicity?

1. The ability to cause change in water movement across a membrane.
2. The measure of the number of dissolved particles or solutes in 1 liter of water.
3. Water moves from areas of low concentration to areas of high solute concentration.
4. A solution that contains a greater concentration of solutes than plasma.

Answer: 1

Explanation:

1. The ability to cause change in water movement across a membrane refers to tonicity.
2. The measure of the number of dissolved particles or solutes in 1 liter of water refers to osmolality.
3. Water that moves from areas of low concentration to areas of high solute concentration refers to osmosis.
4. A solution that contains a greater concentration of solutes than plasma describes a hypertonic solution.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 25-2 Explain how changes in the osmolality or tonicity of a fluid can cause water to move between fluid compartments.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

25) A client experiences a loss of body fluid during surgery. Which isotonic fluid should the nurse anticipate being prescribed for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. 5% dextrose in lactated Ringer
2. 0.9% sodium chloride (NS)
3. 0.45% sodium chloride
4. Lactated Ringer
5. 5% dextrose in water

Answer: 2, 4, 5

Explanation:

1. 5% dextrose in lactated Ringer is a hypertonic solution and is not appropriate for the treatment of fluid loss during surgery.
2. 0.9% sodium chloride is an isotonic solution and is appropriate for the treatment of fluid loss during surgery.
3. 0.45% sodium chloride is a hypotonic solution and is not appropriate in the treatment of fluid loss during surgery.
4. Lactated Ringer is an isotonic solution that is appropriate to treat fluid loss during surgery.
5. 5% dextrose in water is an isotonic solution that is appropriate to treat fluid loss during surgery.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-4 Compare and contrast the use of crystalloids and colloids in intravenous fluid therapy.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

26) The nurse is caring for a client with kidney failure experiencing severe electrolyte imbalances. Which condition is the client most at risk for developing?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fluid retention
2. Muscle spasms
3. Fractures
4. High cholesterol
5. Depression

Answer: 1, 2, 3

Explanation:

1. Electrolytes are responsible for membrane permeability and water balance. An electrolyte imbalance, especially too much sodium, can result in fluid retention.
2. Electrolytes are essential for muscle contractions. An imbalance in electrolytes can result in muscle spasms.
3. Electrolytes are essential for bone growth and remodeling and may place a patient at risk for fractures, especially when there is an imbalance of calcium.
4. Electrolyte imbalances are not associated with high cholesterol.
5. Electrolyte imbalances are not associated with depression.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-5 Explain the importance of electrolyte balance in the body.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

27) A client has a blood pH of 7.32. Which medication should the nurse anticipate being prescribed as treatment?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Oral bicarbonate
2. Sodium chloride
3. Sodium citrate
4. Potassium chloride
5. Ammonium chloride

Answer: 1, 3

Explanation:

1. Oral bicarbonate is an agent used to treat acidosis.
2. Sodium chloride is an agent used to treat alkalosis.
3. Sodium citrate is an agent used to treat acidosis.
4. Potassium chloride is an agent used to treat alkalosis.
5. Ammonium chloride is an agent used to treat alkalosis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 25-9 Identify the causes and treatment of acidosis.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

28) A client is prescribed oral potassium chloride. Which action should the nurse take when giving the client this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Instruct the client to sit straight up to swallow the pill.
2. Crush the tablet and put it in a soft food.
3. Instruct the client to chew the tablet.
4. Administer the prescription with an antacid.
5. Instruct the client to take the prescription prior to eating a meal.

Answer: 1, 4, 5

Explanation:

1. The client should sit straight up when swallowing this pill to prevent choking and to prevent esophagitis.
2. The prescription should not be crushed.
3. The client should not chew the tablet.
4. Potassium chloride can be administered with an antacid to prevent gastrointestinal upset.
5. Potassium chloride should be taken with food to prevent gastric upset.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

29) A client has received polystyrene sulfonate (Kayexalate). Which condition should the nurse associate with the treatment?

1. Hyperphosphatemia
2. Hyperkalemia
3. Hybernatriemia
4. Hypercalcemia

Answer: 2

Explanation:

1. Polystyrene sulfonate is not used to treat hyperphosphatemia.
2. Polystyrene sulfonate is prescribed to treat hyperkalemia. Sodium is exchanged for potassium as the drug travels through the intestine.
3. Polystyrene sulfonate is not used to treat hypernatremia.
4. Polystyrene sulfonate is not used to treat hypercalcemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

30) A client is prescribed oral polystyrene sulfonate (Kayexalate). Which action should the nurse take when giving the client this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Monitor for onset of action of this drug in an hour.
2. Administer cyclosilicate concurrently.
3. Repeat the dose in 4 hours if needed.
4. Mix the dose with a liquid high in glucose.
5. Administer with sodium bicarbonate.

Answer: 1, 3

Explanation:

1. Polystyrene sulfonate (Kayexalate) has an onset of action of 1 hour.
2. Cyclosilicate is also a potassium binder and would not be given concurrently with polystyrene sulfonate.
3. The dose may be repeated in 4 hours if indicated.
4. There is no need to mix the dose with a liquid high in glucose.
5. Sodium bicarbonate is not administered with polystyrene sulfonate.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 25-7 Explain the pharmacotherapy of potassium imbalances.

MNL Learning Outcome: Examine drugs used for fluid balance, electrolyte, and acid-base disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 26 Drugs for Hypertension**

1) A client receiving hydrochlorothiazide (Microzide) asks why they are urinating so frequently. Which response should the nurse make to the client?

1. "Hydrochlorothiazide (Microzide) enhances kidney function causing you to urinate more and that decreases your blood pressure."
2. "Hydrochlorothiazide (Microzide) decreases the fluid in your bloodstream and this lowers your blood pressure."
3. "Hydrochlorothiazide (Microzide) dilates your blood vessels so you urinate more and your blood pressure decreases."
4. "Hydrochlorothiazide (Microzide) increases your heart rate; this pumps blood faster to your kidneys so you urinate more and your blood pressure decreases."

Answer: 2

Explanation:

1. Hydrochlorothiazide (Microzide) does not enhance kidney function.
2. Blood volume is one of the three factors influencing blood pressure. Diuretics like hydrochlorothiazide (Microzide) decrease blood pressure by decreasing total blood volume.
3. Hydrochlorothiazide (Microzide) does not dilate blood vessels.

4. Hydrochlorothiazide (Microzide) does not increase heart rate.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-6 Describe the treatment of hypertension with diuretics.

MNL Learning Outcome: Examine drugs used for hypertension.

2) The nurse is teaching a client about nonpharmacological interventions to manage hypertension. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase the dietary intake of fruits and vegetables.
2. Decrease the consumption of alcohol.
3. Reduce the dietary intake of potassium.
4. Increase physical activity.
5. Restrict the intake of sodium.

Answer: 1, 2, 4, 5

Explanation:

1. Increasing the intake of fruits and vegetables is recommended to help manage hypertension.
2. Decrease the consumption of alcohol.
3. Dietary potassium should be increased to help control hypertension.
4. Increased physical activity is recommended to help manage hypertension.
5. Reduction of the intake of sodium is recommended to help manage hypertension.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 26-4 Discuss the role of positive lifestyle changes in the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

3) The nurse is reviewing the results of blood pressure measurements on clients in the community clinic. Which client should the nurse anticipate will require a pharmacological intervention to manage the blood pressure?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A 30-year-old female whose blood pressure is 138/88 mmHg who is otherwise healthy
2. A 61-year-old male whose blood pressure is 144/90 mmHg who also has type 2 diabetes
3. A 56-year-old female whose blood pressure is 135/84 mmHg who also has Cushing disease
4. A 65-year-old male whose blood pressure is 148/88 mmHg who is otherwise healthy
5. A 61-year-old female whose blood pressure is 124/72 mmHg who is otherwise healthy

Answer: 1, 2, 3, 4

Explanation:

1. This is considered stage 1 of hypertension and requires nonpharmacologic therapy and a single antihypertensive medication.
2. This is considered stage 2 of hypertension and requires nonpharmacologic intervention and two antihypertensive medications.
3. This is considered stage 1 of hypertension and requires nonpharmacologic therapy and a single antihypertensive medication.
4. This is considered stage 2 of hypertension and requires nonpharmacologic intervention and two antihypertensive medications.
5. This is in the elevated range and requires nonpharmacologic interventions.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 26-5 Explain current guidelines for the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

4) A client with an elevated blood pressure refuses medications. For which condition should the nurse explain that the client is at risk for developing?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Kidney damage
2. Stroke
3. Liver failure
4. Heart failure
5. Blindness

Answer: 1, 2, 4, 5

Explanation:

1. The kidneys are affected by hypertension.
2. Stroke is a common effect of hypertension.
3. Liver failure is not commonly associated with hypertension.
4. The heart is affected by hypertension.
5. The retina is affected by hypertension.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-3 Explain the etiology and pathogenesis of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

5) A client with hypertension has a weight of 200 lb, a height of 5'4", dietary intake includes primarily starches, an alcohol intake of three beers per week, and stressors include 60-hour workweeks. Based on this information, which outcome should the nurse identify as a priority?

1. Patient will eliminate alcohol from the diet.
2. Patient will decrease stress by limiting work to 40 hours/week.
3. Patient will balance diet according to the food pyramid.
4. Patient will achieve and maintain optimum weight.

Answer: 4

Explanation:

1. Eliminating alcohol is important but not the priority outcome.
2. Decreasing stress is important but not the priority outcome.
3. A balanced diet is important but not the priority outcome.
4. Achieving and maintaining optimum weight is of greatest importance when a client has hypertension. In overweight clients with hypertension, each kilogram of weight loss correlates to a 1-mmHg reduction in blood pressure.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 26-4 Discuss the role of positive lifestyle changes in the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

6) A client is taking losartan (Cozaar) to control blood pressure. Which electrolyte should the nurse anticipate monitoring in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Potassium
2. Sodium
3. Calcium
4. Chloride
5. Magnesium

Answer: 1, 2

Explanation:

1. The electrolytes that will be monitored for a client prescribed losartan include potassium.
2. The electrolytes that will be monitored for a client prescribed losartan include sodium.
3. The electrolytes that will be monitored for a client prescribed losartan do not include calcium.
4. The electrolytes that will be monitored for a client prescribed losartan do not include chloride.
5. The electrolytes that will be monitored for a client prescribed losartan do not include magnesium.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-7 Describe the treatment of hypertension with drugs that block the renin-angiotensin aldosterone system.

MNL Learning Outcome: Examine drugs used for hypertension.

7) The nurse provides dietary education for a client taking nifedipine (Procardia XL). Which dietary choice indicates the client needs additional teaching?

1. Whole-wheat pancakes with syrup, bacon, oatmeal, and orange juice
2. Eggs, whole-wheat toast with butter, cereal, milk, and grapefruit juice
3. Eggs and sausage, a biscuit with margarine, coffee with cream, and cranberry juice
4. Egg and cheese omelet, tea with sugar and lemon, hash brown potatoes, and prune juice

Answer: 2

Explanation:

1. There is no food—drug interaction with calcium channel blockers and whole-wheat pancakes with syrup, bacon, oatmeal, and orange juice.
2. Grapefruit juice in combination with a sustained-release calcium channel blocker could result in rapid toxic overdose, which is a medical emergency.
3. There is no food—drug interaction with calcium channel blockers and eggs, sausage, a biscuit with margarine, and cranberry juice.
4. There is no food—drug interaction with calcium channel blockers and an egg and cheese omelet, tea with sugar and lemon, hash brown potatoes, and prune juice.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 26-8 Describe the treatment of hypertension with calcium channel blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

8) A client with hypertension is prescribed a beta-adrenergic blocker. Which client statement should cause the nurse to be concerned?

1. "I don't handle stress well; I get diarrhea."
2. "When I have a migraine headache, I need to have the room darkened."
3. "My parent died of a heart attack at 48 years old."
4. "I have always had problems with my asthma."

Answer: 4

Explanation:

1. There is no correlation between increased stress, diarrhea, and beta-adrenergic blockers.
2. Beta-adrenergic blockers do not affect migraine headaches.
3. Having a parent who died of a heart attack at a young age is significant but has no correlation to this client and the use of beta-adrenergic blockers.
4. This medication should be used with caution in clients with asthma. With increased doses, beta-adrenergic blockers can slow the heart rate and cause bronchoconstriction.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-9 Describe the treatment of hypertension with adrenergic blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

9) A client is scheduled to receive a newly prescribed dose of enalapril (Vasotec). Which action should the nurse make a priority?

1. Monitor the client for headaches.
2. Measure the client's blood pressure.
3. Order a sodium-restricted diet for the client.
4. Review the client's lab results for hypokalemia.

Answer: 2

Explanation:

1. Although headache is a side effect, it is not the priority.
2. Enalapril may produce a first-dose phenomenon resulting in profound hypotension, which may result in syncope.
3. Enalapril does not affect sodium levels.
4. Enalapril is more likely to cause hyperkalemia, not hypokalemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-7 Describe the treatment of hypertension with drugs that block the renin-angiotensin aldosterone system.

MNL Learning Outcome: Examine drugs used for hypertension.

10) A client is receiving intravenous hydralazine (Apresoline). For which adverse effects should the nurse monitor this client?

1. Hypotension and bradycardia
2. Hypotension and hyperthermia
3. Hypotension and tachycardia
4. Hypotension and tachypnea

Answer: 3

Explanation:

1. Direct vasodilators do not produce bradycardia.
2. Direct vasodilators do not affect body temperature.
3. Direct vasodilators produce reflex tachycardia, a compensatory response to the sudden decrease in blood pressure caused by the drug.
4. Direct vasodilators do not affect respiratory rate.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-10 Describe the treatment of hypertension with direct vasodilators.

MNL Learning Outcome: Examine drugs used for hypertension.

11) The nurse instructs a client who is prescribed hydrochlorothiazide (Microzide). Which statement made by the client indicates an understanding of the teaching?

1. "I really need to avoid grapefruit juice when I take this medication."
2. "I need to avoid salt substitutes and potassium-rich foods."
3. "I take my medication early in the morning."
4. "If I develop a cough, I should call my healthcare provider."

Answer: 3

Explanation:

1. Grapefruit juice inhibits the metabolism of the calcium channel blockers.
2. Hydrochlorothiazide (Microzide) is a potassium-excreting diuretic, and potassium supplementation is often necessary.
3. Taking hydrochlorothiazide (Microzide) early in the day will help prevent nocturia.
4. Development of a cough occurs with angiotensin-converting enzyme inhibitors.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 26-6 Describe the treatment of hypertension with diuretics.

MNL Learning Outcome: Examine drugs used for hypertension.

12) The nurse reviews lifestyle modifications to help manage a client's hypertension. Which statement made by the client indicates an understanding of the information?

1. "I need to get started on my medications right away."
2. "My parent had hypertension, did nothing, and lived to be 90 years old."
3. "I know I need to give up my cigarettes and alcohol."
4. "I won't be able to run in the marathon race anymore."

Answer: 3

Explanation:

1. Implementing lifestyle modifications may eliminate the need for pharmacotherapy, so the client may not have to take medication right away.
2. The fact that the client's parent had hypertension and lived to be 90 years old does not mean that the client will have the same experience; the client is in denial.
3. Limiting intake of alcohol and discontinuing tobacco products are important nonpharmacological methods for controlling hypertension.
4. Increasing physical activity is an important lifestyle modification for controlling hypertension.

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Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 26-4 Discuss the role of positive lifestyle changes in the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

13) The nurse is preparing medications for a client with hypertension. For which assessment finding should the nurse withhold a dose of enalapril (Vasotec)?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cough
2. Lightheadedness on ambulation
3. Periorbital edema
4. Sneezing
5. Low urine output

Answer: 3, 5

Explanation:

1. Cough is a common side effect of this drug. The nurse should discuss the finding with the healthcare provider, but there is no need to hold the drug.
2. Orthostatic hypotension is common at the beginning of therapy. The nurse would manage the safety of the client but would not hold the medication.
3. Periorbital edema may indicate angioedema, which is a serious adverse effect. Holding the medication is indicated.
4. Sneezing is not associated with enalapril.
5. A low urine output may indicate acute renal failure. Holding the drug is indicated.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-7 Describe the treatment of hypertension with drugs that block the renin-angiotensin aldosterone system.

MNL Learning Outcome: Examine drugs used for hypertension.

14) The nurse notes that a client experiencing heart failure has been receiving nifedipine (Procardia). Which assessment should the nurse make a priority?

1. Review recent lab results for hypokalemia.
2. Assess urinary output.
3. Assess level of orientation.
4. Auscultate breath sounds for crackles.

Answer: 4

Explanation:

1. Calcium channel blockers do not cause hypokalemia.
2. Urinary output may be decreased with heart failure, but it is not a priority assessment at this time.
3. Level of orientation may be decreased with heart failure, but it is not a priority assessment at this time.
4. Some calcium channel blockers can reduce myocardial contractility and can worsen heart failure. Crackles in the lungs can indicate pulmonary edema, which could indicate heart failure.

Page Ref: 356

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-8 Describe the treatment of hypertension with calcium channel blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

15) A client prescribed doxazosin (Cardura) asks how the medication works. Which information should the nurse provide the client?

1. "Doxazosin causes the kidneys to excrete more urine."
2. "Doxazosin helps the heart work more efficiently."
3. "Doxazosin helps dilate the blood vessels."
4. "Doxazosin decreases the release of the stress hormones."

Answer: 3

Explanation:

1. Excreting more urine is an effect of diuretic medications.
2. Increasing the efficiency of the heart is not an effect of doxazosin.
3. Doxazosin is selective for blocking alpha<sub>1</sub>-receptors in vascular smooth muscle, which results in dilation of arteries and veins.
4. Decreasing the release of stress hormones is not an effect of doxazosin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 26-9 Describe the treatment of hypertension with adrenergic blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

16) The nurse is preparing to administer clevidipine (Cleviprex) to a client experiencing a hypertensive crisis. Which intervention should the nurse implement?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Monitor bowel sounds.
2. Administer the drug intravenously.
3. Continually monitor blood pressure.
4. Crush caplets for administration.
5. Infuse prescription in normal saline at 125 mL/h.

Answer: 2, 3

Explanation:

1. There is no particular reason that bowel sounds should be monitored more frequently than normally done.
2. Clevidipine (Cleviprex) is administered intravenously.
3. Clevidipine (Cleviprex) has an ultrashort half-life so blood pressure will be monitored continuously.
4. This drug is not supplied in caplet form.
5. Infusing normal saline at this rate would be contraindicated in a hypertensive emergency.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-8 Describe the treatment of hypertension with calcium channel blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

17) The nurse is preparing a teaching tool about blood pressure. Which factors should the nurse identify that are responsible for blood pressure?

1. Blood volume, heart rate, and stroke volume
2. Cardiac output, blood volume, and peripheral vascular resistance
3. Age, weight, and race
4. Body mass index, diet, and genetics

Answer: 2

Explanation:

1. The heart rate is not specifically involved in blood pressure; however, the blood volume or cardiac output influences the blood pressure.
2. Although many factors can contribute to blood pressure, such as diet and weight, cardiac output, blood volume, and peripheral vascular resistance are the factors responsible for blood pressure.
3. Age, weight, and race do not specifically control blood pressure.
4. Body mass index, diet, and genetics do not specifically control blood pressure.

Page Ref: 346

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 26-1 Explain the effects of cardiac output, peripheral resistance, and blood volume on blood pressure.

MNL Learning Outcome: Examine drugs used for hypertension.

18) The nurse is reviewing the physiological regulation of blood pressure. Which factor should the nurse identify as initially involved?

1. Production of angiotensin II
2. Action of renin
3. Antidiuretic hormone
4. Production of angiotensin I

Answer: 2

Explanation:

1. Angiotensin I forms angiotensin II, which results in vasoconstriction.
2. Renin forms angiotensin I.
3. Antidiuretic hormone does not initially regulate the blood pressure. Antidiuretic hormone affects the renin, which affects angiotensin I, which affects angiotensin II, resulting in vasoconstriction.
4. The production of angiotensin I is acted on in the lung to form angiotensin II.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-2 Discuss the physiologic regulation of blood pressure.

MNL Learning Outcome: Examine drugs used for hypertension.

19) The nurse is reviewing the pathophysiology of the cardiovascular and neurologic systems. Which changes are sensed by the baroreceptors and relayed to the vasomotor center?

1. Oxygenation
2. Blood pressure
3. Carbon dioxide
4. Blood pH

Answer: 2

Explanation:

1. Chemoreceptors recognize levels of oxygen.
2. Baroreceptors sense and relay changes in blood pressure.
3. Chemoreceptors recognize levels of carbon dioxide.
4. Chemoreceptors recognize pH levels.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-3 Explain the etiology and pathogenesis of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

20) A client is diagnosed with secondary hypertension. Which statement should the nurse make when explaining this type of hypertension?

1. There is no known cause.
2. It can result from chronic renal impairment.
3. It is also known as idiopathic.
4. It accounts for 90% of all hypertensive cases.

Answer: 2

Explanation:

1. Primary hypertension has no known cause.
2. Secondary hypertension has an identifiable cause such as chronic kidney disease.
3. Primary hypertension is known as idiopathic.
4. Secondary hypertension accounts for 10% of all cases.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-3 Explain the etiology and pathogenesis of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

21) A 30-year-old female with a blood pressure of 124/68 has a body mass index of 20 and smokes one pack of cigarettes per day. Which intervention should the nurse identify as the highest priority?

1. Smoking cessation program
2. Diuretic therapy
3. Weight-loss program
4. Stress management

Answer: 1

Explanation:

1. Smoking cessation is the priority.
2. The client is in the elevated category for blood pressure and is not a candidate for medication.
3. Although weight management is very important, the client has a normal body mass index of 20.
4. There is no indication the client is experiencing stress.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 26-4 Discuss the role of positive lifestyle changes in the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

22) The nurse is caring for a client who takes a thiazide diuretic. About which electrolyte level

should the nurse be concerned?

1. Magnesium
2. Calcium
3. Chloride
4. Potassium

Answer: 4

Explanation:

1. Magnesium is not a concern.
2. Calcium is not a concern.
3. Chloride is not a concern.
4. The client prescribed a thiazide diuretic is at risk for a potassium and sodium imbalance. The client should be monitored for hypokalemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning  
Learning Outcome: 26-6 Describe the treatment of hypertension with diuretics.  
MNL Learning Outcome: Examine drugs used for hypertension.

23) A client with hypertension is planning a pregnancy. Which antihypertensive medication should the nurse anticipate being contraindicated for this client?

1. Losartan (Cozaar)
2. Potassium supplement
3. Doxazosin (Cardura)
4. Hydrochlorothiazide (HCTZ)

Answer: 1

Explanation:

1. Fetal injury and death may occur when angiotensin-receptor blockers are taken during pregnancy. When pregnancy is detected, the drugs should be discontinued as soon as possible.
2. Potassium is not an antihypertensive medication.
3. Doxazosin does not have a black box warning about pregnancy.
4. HCTZ does not have a black box warning about pregnancy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning  
Learning Outcome: 26-7 Describe the treatment of hypertension with drugs that block the renin-angiotensin aldosterone system.  
MNL Learning Outcome: Examine drugs used for hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

24) The nurse instructs a client prescribed nifedipine (Adalat CC). Which client statement

indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "If I drink alcohol while taking this medication, I could faint."
2. "I should stop taking my melatonin sleep medication."
3. "I should no longer drink grapefruit juice."
4. "I should no longer drink sports drinks with caffeine in them."
5. "I should stop taking my vitamin C supplement."

Answer: 1, 2, 3

Explanation:

1. Alcohol may potentiate the effects of nifedipine and could lead to syncope.
2. Concurrent use with melatonin may increase blood pressure and heart rate.
3. Grapefruit juice may enhance absorption of nifedipine.
4. Caffeine is not contraindicated when taking nifedipine.
5. Vitamin C supplements are not contraindicated when taking nifedipine.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 26-8 Describe the treatment of hypertension with calcium channel blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

25) The nurse is teaching a client whose blood pressure is 124/76 mmHg on ways to lower blood pressure and avoid hypertension. Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I have incorporated yoga into my exercise program."
2. "I will monitor my daily sodium intake."
3. "I will drink a glass of red wine daily to help lower my blood pressure."
4. "I am receiving acupuncture to help me stop smoking."
5. "I will eat more fresh fruits and vegetables."

Answer: 1, 2, 4, 5

Explanation:

1. Incorporating yoga into an exercise program will help decrease stress and improve body strength.
2. Restricting sodium intake is a positive lifestyle change.
3. Increasing the intake of alcohol, including wine, is not a positive lifestyle change associated with the nonpharmacologic treatment of hypertension. The client should decrease the intake of alcohol.
4. Eliminating tobacco products is a positive lifestyle change.
5. The consumption of fresh fruits and vegetables will help reduce the intake of total fat and cholesterol as a positive lifestyle change.

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Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 26-4 Discuss the role of positive lifestyle changes in the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

26) A male client plans to stop taking metoprolol because of a change in his sexual drive. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I understand sexual dysfunction can be a common problem with this drug."
2. "Perhaps it would be better if you took atenolol."
3. "I cannot stop you from discontinuing the drug."
4. "Stopping the prescription abruptly may cause your blood pressure to elevate even higher."
5. "Try taking the drug early in the morning."

Answer: 1, 4

Explanation:

1. One of the major causes of noncompliance is the effect beta blockers have on male sexual function. Acknowledging the client's concern promotes therapeutic communication.
2. Atenolol (Tenormin) is also a beta blocker.
3. While this is true, it does not address the issue.
4. Abrupt cessation of beta-blocker therapy can result in rebound hypertension.
5. Time of administration is not likely to change overall effects of the drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 26-9 Describe the treatment of hypertension with adrenergic blockers.

MNL Learning Outcome: Examine drugs used for hypertension.

27) A client experiencing syncope is suspected of having a losartan (Cozaar) overdose. Which intervention should the nurse anticipate?

1. A calcium infusion
2. A loop diuretic
3. A vasopressor
4. An intravenous solution of normal saline

Answer: 4

Explanation:

1. A calcium infusion may be indicated for a nifedipine overdose.
2. Vasopressors are not used to treat overdose of losartan.
3. A loop diuretic will further worsen the situation.
4. An overdose of losartan is treated with intravenous solution of normal saline.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 26-7 Describe the treatment of hypertension with drugs that block the renin-angiotensin aldosterone system.

MNL Learning Outcome: Examine drugs used for hypertension.

28) A client is prescribed hydralazine for hypertension. For which additional medical condition should the nurse be concerned about for this client?

1. Asthma
2. Angina
3. Diabetes
4. Hyperthyroidism

Answer: 2

Explanation:

1. The use of hydralazine is not contraindicated with asthma.
2. The use of hydralazine is contraindicated with angina.
3. The use of hydralazine is not contraindicated with diabetes.
4. The use of hydralazine is not contraindicated with hyperthyroidism.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-10 Describe the treatment of hypertension with direct vasodilators.

MNL Learning Outcome: Examine drugs used for hypertension.

29) The nurse is preparing to teach about the use of primary hypertensive agents with a client. Which prescription should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Thiazide diuretics
2. Angiotensin-receptor blockers (ARBs)
3. Beta-adrenergic antagonists
4. Direct-acting vasodilators
5. Adrenergic antagonists

Answer: 1, 2

Explanation:

1. Diuretics are considered a primary antihypertensive agent.
2. ARBs are considered a primary antihypertensive agent.
3. Beta-adrenergic antagonists are considered second-line drugs for treatment of hypertension.
4. Direct-acting vasodilators are considered second-line drugs for treatment of hypertension.
5. Adrenergic antagonists are considered second-line drugs for treatment of hypertension.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 26-5 Explain current guidelines for the management of hypertension.

MNL Learning Outcome: Examine drugs used for hypertension.

30) A client is experiencing hypertensive crisis. Which physiologic system should the nurse recognize is most at risk for the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cardiac
2. Respiratory
3. Integumentary
4. Gastrointestinal
5. Renal

Answer: 1, 5

Explanation:

1. The heart responds to hypertension by decreasing heart rate and stroke volume.
2. The respiratory system does not help regulate blood pressure.
3. The integumentary system does not help regulate blood pressure.
4. The gastrointestinal system does not help regulate blood pressure.
5. The kidney responds to hypertension by increasing urine output to decrease blood volume.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 26-1 Explain the effects of cardiac output, peripheral resistance, and blood volume on blood pressure.

MNL Learning Outcome: Examine drugs used for hypertension.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 27 Drugs for Heart Failure**

1) A client asks how hypertension can lead to heart failure. Which response should the nurse make to the client?

1. "Hypertension increases the resistance in the blood vessels, causing the heart to work harder to pump the blood out against the resistance of the arteries."
2. "Hypertension limits the ability of the heart to stretch before emptying, resulting in the heart working harder to pump the blood out into the arterial system."
3. "Hypertension causes resistance in the venous system, requiring the heart to work harder to pump the blood forward."
4. "Hypertension limits the amount of blood entering the left ventricle, increasing the workload of the heart to pump an adequate amount of blood into the circulatory system."

Answer: 1

Explanation:

1. The peripheral resistance that occurs in hypertension causes the heart to work harder to pump the blood out into the arterial system. This places the client at risk of heart failure.
2. Hypertension does not affect the heart's ability to stretch.
3. The resistance the heart pumps against is in the arterial system, not the venous system.
4. Heart failure does not result from hypertension limiting the amount of blood in the left ventricle that the heart has to pump out into the circulatory system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

2) A client in heart failure asks how difficulty breathing is related to a heart problem. Which information should the nurse say in response to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The right side of your heart has weakened and blood has entered your lungs."
2. "The right side of your heart has enlarged and cannot effectively pump blood."
3. "What you have is called congestive heart failure."
4. "The left side of your heart is weak and pumps blood too quickly."
5. "The left side of your heart has weakened and blood has entered your lungs."

Answer: 3, 5

Explanation:

1. Right-sided heart failure results in peripheral edema, not pulmonary congestion.
2. Right-sided heart failure results in peripheral edema, not pulmonary congestion.
3. Left heart failure is sometimes called congestive heart failure.
4. Heart failure results from the inability of the left ventricle to pump blood, not pumping blood too quickly.
5. When the left ventricle cannot compensate for increased preload, blood backs up into the lungs, resulting in cough and shortness of breath.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

3) A client is prescribed digoxin (Lanoxin) for a heart condition. Which client statement indicates teaching provided to the client about toxicity was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I should limit my fluids while taking this medication."
2. "It is okay to keep using a salt substitute."
3. "If I have nausea, it means I must stop the medication."
4. "I can drink orange juice every morning."
5. "I must check my pulse and not take the medication if it is less than 60."

Answer: 4, 5

Explanation:

1. Dehydration can increase the risk for digoxin (Lanoxin) toxicity; the client must not limit fluids.
2. Salt substitutes should be avoided due to increased risk for dysrhythmias and digoxin (Lanoxin) toxicity.
3. Nausea, by itself, may be a side effect, but it is not necessarily indicative of digoxin (Lanoxin) toxicity.
4. Orange juice is a source of potassium, which will minimize the risk for digoxin (Lanoxin) toxicity.
5. Sixty beats per minute is the generally accepted limit for withholding digoxin (Lanoxin).

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

4) The nurse provides education to a client prescribed lisinopril (Prinivil). Which client statement indicates further teaching is required?

1. "I will monitor my blood pressure until my next appointment."
2. "I will avoid using salt substitutes for seasoning."
3. "It takes a while for this medication to take effect."
4. "I will not need to worry about having additional blood tests done."

Answer: 4

Explanation:

1. Blood pressure should be monitored to assess the effectiveness of the medication.
2. Potassium should be limited to avoid hyperkalemia.
3. It takes a while for lisinopril to become effective.
4. The use of angiotensin-converting enzyme inhibitors can lead to electrolyte disturbances, so levels should be monitored.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 27-3 Describe the treatment of heart failure with drugs affecting the renin-angiotensin system.

MNL Learning Outcome: Examine drugs used for heart failure.

5) A client is prescribed an intravenous infusion of milrinone (Primacor) for acute heart failure. Which assessment should the nurse complete during the infusion?

1. Monitor for symptoms of atrial fibrillation
2. Continuous electrocardiogram (ECG) monitoring
3. Vital signs every 15 minutes
4. Monitor for hypertension

Answer: 2

Explanation:

1. Atrial fibrillation is not an adverse effect of milrinone.
2. Due to the risk of ventricular dysrhythmia, the client's ECG is usually monitored continuously during the infusion of milrinone.
3. Vital signs should be assessed continuously, not every 15 minutes, while the client receives milrinone.
4. Hypotension, not hypertension, is an adverse effect of milrinone.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-7 Describe the treatment of heart failure with vasodilators and positive inotropic drugs.

MNL Learning Outcome: Examine drugs used for heart failure.

6) The nurse reviews information obtained during end-of-shift hand-off communication. Which client prescribed metoprolol (Toprol-XL) should the nurse identify that is most at risk for adverse effects?

1. The client with an apical pulse rate of 100
2. The client with compensated heart failure
3. The client with chronic bronchitis
4. The client with a history of migraines

Answer: 3

Explanation:

1. Beta blockers may be used for clients with apical pulse rates of 100.
2. Beta blockers may be used for a client with compensated heart failure.
3. Metoprolol is selective for blocking beta<sub>1</sub> receptors in the heart, so adverse effects on the lungs are not as likely as with other nonselective beta blockers. However, the prescription should be used with caution in clients with asthma and those with a history of bronchospasm because the drug may affect beta<sub>2</sub> receptors at high doses.
4. Beta blockers may be used for clients with migraines.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-5 Describe the treatment of heart failure with beta-adrenergic blockers.

MNL Learning Outcome: Examine drugs used for heart failure.

7) The nurse is caring for a client taking digoxin (Lanoxin). Which finding should the nurse identify is an adverse effect of this medication?

1. Tachycardia and hypotension
2. Blurred vision and tachycardia
3. Anorexia and nausea
4. Anorexia and constipation

Answer: 3

Explanation:

1. Hypotension can occur, but bradycardia not tachycardia occurs.
2. Blurred vision can occur, but bradycardia not tachycardia occurs.
3. Anorexia and nausea are common adverse effects of digoxin (Lanoxin).
4. Anorexia can occur, but diarrhea is more likely than constipation.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

8) The nurse is receiving hand-off communication for a group of clients. Which client should the nurse identify as being at the greatest risk for developing heart failure?

1. A 50-year-old female with osteoporosis
2. A 75-year-old male who is overweight
3. A 69-year-old male with hypertension
4. A 52-year-old female with asthma

Answer: 3

Explanation:

1. Osteoporosis is not a risk factor for the development of heart failure.
2. Being overweight is not a risk factor for the development of heart failure.
3. Hypertension is a condition that increases the risk for heart failure.
4. Asthma is not a risk factor for heart failure.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

9) A client prescribed furosemide (Lasix) and digoxin (Lanoxin) reports using an over-the-counter antacid for recurrent heartburn. Which potential outcome should concern the nurse?

1. Hyponatremia
2. Hypermagnesemia
3. Increased effectiveness of furosemide (Lasix)
4. Decreased effectiveness of digoxin (Lanoxin)

Answer: 4

Explanation:

1. Hyponatremia does not result from an interaction with furosemide (Lasix), digoxin (Lanoxin), and antacids.
2. Hypermagnesemia does not result from an interaction with furosemide (Lasix), digoxin (Lanoxin), and antacids.
3. Use of furosemide (Lasix), digoxin (Lanoxin), and antacid does not increase the effectiveness of furosemide.
4. Use of antacids may decrease the effectiveness of digoxin (Lanoxin).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.4 Diagnose actual or potential health problems and needs. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Diagnosis

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

10) A client is taking lisinopril (Prinivil). Which adverse effect should be reported to the healthcare provider?

1. Cough
2. Fever
3. Increased urine output
4. Facial flushing

Answer: 1

Explanation:

1. A cough is an adverse effect of lisinopril and should be reported to the healthcare provider.
2. A fever is not an adverse effect of lisinopril.
3. Increased urine output is not associated with lisinopril.
4. Facial flushing is not an adverse effect of lisinopril.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 27-3 Describe the treatment of heart failure with drugs affecting the renin-angiotensin system.

MNL Learning Outcome: Examine drugs used for heart failure.

11) A client is diagnosed with chronic heart failure. Which drug classification should the nurse anticipate prescribed for the client?

1. Angiotensin-converting enzyme (ACE) inhibitor
2. Beta-adrenergic blockers
3. Cardiac glycosides
4. Diuretics

Answer: 1

Explanation:

1. An ACE inhibitor is the first-line prescription for the treatment of chronic heart failure.
2. Beta-adrenergic blockers are standard therapy for stage B heart failure.
3. Cardiac glycosides such as digoxin are not as safe and effective as ACE inhibitors or angiotensin-receptor blockers and are reserved for more advanced stages of heart failure.
4. Diuretics are used to treat symptoms of heart failure such as fluid volume overload, edema, and pulmonary congestion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 27-3 Describe the treatment of heart failure with drugs affecting the renin-angiotensin system.

MNL Learning Outcome: Examine drugs used for heart failure.

12) The nurse instructs a client with diabetes mellitus who is prescribed metoprolol (Lopressor) for hypertension. Which client statement indicates teaching was effective?

1. "I might not need to check my blood sugars as often with metoprolol (Lopressor)."
2. "I might be able to change from insulin to a pill with metoprolol (Lopressor)."
3. "I might need less insulin when I take metoprolol (Lopressor)."
4. "I might need more insulin when I take metoprolol (Lopressor)."

Answer: 3

Explanation:

1. The client will most likely require more frequent blood glucose assessments, as metoprolol (Lopressor) may enhance the hypoglycemic effects of insulin.
2. Metoprolol (Lopressor) will not change the need for insulin in a client with diabetes; however, the client may require less insulin.
3. Metoprolol (Lopressor) may enhance the hypoglycemic effects of insulin and oral hypoglycemic agents, so the client might require less insulin.
4. Metoprolol (Lopressor) may enhance the hypoglycemic effects of insulin and oral hypoglycemic agents, so the client might require less, not more, insulin.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 27-5 Describe the treatment of heart failure with beta-adrenergic blockers.

MNL Learning Outcome: Examine drugs used for heart failure.

13) A client being discharged is prescribed digoxin (Lanoxin). Which information should the nurse include in the discharge teaching?

1. "Report the development of a metallic taste in the mouth."
2. "Report blurring of vision."
3. "Stop the prescription if your pulse is irregular."
4. "If you miss a dose, take two doses."

Answer: 2

Explanation:

1. A metallic taste is not associated with digoxin.
2. Digoxin can cause vision changes such as blurring or yellow-green tinged haloes.
3. If the pulse is irregular, the client should not stop the prescription but instead should notify the healthcare provider.
4. The client should not take a double dose; this is considered an overdose that could lead to toxicity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

14) The nurse completes dietary teaching for a client prescribed digoxin (Lanoxin). Which dietary choice indicates teaching was effective?

1. Cottage cheese, peach salad, and blueberry pie
2. Baked fish, sweet potatoes, and banana pudding
3. Green bean soup, whole-wheat bread, and an apple
4. Hamburger, fried potatoes, and chocolate chip cookies

Answer: 2

Explanation:

1. Cottage cheese, peach salad, and blueberry pie are not significant sources of potassium needed to help prevent digoxin toxicity.
2. Fish, sweet potatoes, and bananas are high in potassium, which will help prevent digoxin toxicity.
3. Green bean soup, whole-wheat bread, and an apple are not significant sources of potassium needed to help prevent digoxin toxicity.
4. A hamburger is high in potassium, but fried potatoes are not appropriate for a cardiac client.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

15) The nurse receives hand-off communication at the beginning of a scheduled shift. Which client should the nurse identify that has the greatest risk for developing heart disease?

1. A 35-year-old with diabetes mellitus and prehypertension
2. A 75-year-old with Parkinson disease and normal blood pressure
3. A 52-year-old with osteoporosis and stage 1 hypertension
4. A 68-year-old with stage 2 hypertension and recent myocardial infarction

Answer: 4

Explanation:

1. Cardiac tissue weakens as people age and can be caused or accelerated by chronic hypertension, myocardial infarction, diabetes mellitus, and other cardiac-related diseases. This client is at somewhat less risk due to age.
2. Cardiac tissue weakens as people age and can be caused or accelerated by chronic hypertension, myocardial infarction, diabetes mellitus, and other cardiac-related diseases. This client has no other risk factors except age.
3. Cardiac tissue weakens as people age and can be caused or accelerated by chronic hypertension, myocardial infarction, diabetes mellitus, and other cardiac-related diseases. Osteoporosis is not a risk factor.
4. Cardiac tissue weakens as people age and can be caused or accelerated by chronic hypertension, myocardial infarction, diabetes mellitus, and other cardiac-related diseases. The 68-year-old client has the greatest risk factors for developing heart failure.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

16) The nurse is asked to explain the physiologic changes that occur with heart failure. Which information should the nurse include in response?

1. Blood backs up into the lungs due to right-ventricular hypertrophy.
2. The walls of the heart shrink, leading to lower cardiac output.
3. Cardiac remodeling occurs after prolonged ventricular hypertrophy.
4. Blood pressure increases, resulting in lowered afterload.

Answer: 3

Explanation:

1. Blood can back up into the lungs, but this would be a result of left-ventricular hypertrophy, not right.
2. Heart walls do not shrink.
3. Heart walls thicken and enlarge with heart failure. These changes occur over time and are referred to as cardiac remodeling.
4. Blood pressure can go up but would result in a higher, not lower, afterload.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 27-2 Explain the classification of heart failure and pharmacologic approaches for managing the disorder.

MNL Learning Outcome: Examine drugs used for heart failure.

17) The nurse is caring for a client with a heart condition. Which factor should the nurse recall that increases cardiac output?

1. Reduced cardiac contractility
2. Hypovolemia
3. Peripheral vascular resistance
4. Increase in preload

Answer: 4

Explanation:

1. A reduction in cardiac contractility results in lower preload and subsequent cardiac output.
2. Hypovolemia is a lower blood volume and will result in lower cardiac output.
3. Peripheral vascular resistance increases afterload and increases the workload on the heart.
4. Increased preload results in a more forceful contraction and increases cardiac output.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

18) A client is diagnosed with heart failure. Which medication should the nurse anticipate being prescribed to increase myocardial contractility?

1. Digoxin (Lanoxin)
2. Lisinopril (Prinivil)
3. Carvedilol (Coreg)
4. Furosemide (Lasix)

Answer: 1

Explanation:

1. Cardiac glycosides increase cardiac output by increasing the force of contraction.
2. Angiotensin-converting enzyme inhibitors lower peripheral vascular resistance and blood volume.
3. Beta blockers lower heart rate.
4. Diuretics lower blood volume.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

19) A client with heart failure is prescribed lisinopril (Prinivil). Which action of the drug should the nurse recall that results in a decrease in the blood volume?

1. Antagonistic effect on angiotensin-converting enzyme.
2. Decreases aldosterone secretion.
3. Causes hyponatremia and increases renal tubule permeability resulting in a diuretic effect.
4. Causes a diuretic effect by lowering the amount of sodium lost in the urine.

Answer: 2

Explanation:

1. Angiotensin-converting enzyme (ACE) inhibitors have an antagonistic effect on angiotensin-converting enzyme, but this action lowers blood pressure by reducing peripheral vascular resistance, not by lowering blood volume.
2. ACE inhibitors decrease aldosterone secretion from the adrenal cortex, resulting in a lowering of the blood volume.
3. Increasing sodium in the blood does not lower the blood volume.
4. Aldosterone is a hormone that increases the reabsorption of sodium and water.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-3 Describe the treatment of heart failure with drugs affecting the renin-angiotensin system.

MNL Learning Outcome: Examine drugs used for heart failure.

20) The nurse is caring for a client prescribed a beta-adrenergic blocker for heart failure. Which information should the nurse recall about the use of this medication?

1. Higher doses are used initially until optimal vital signs are achieved.
2. Dosage changes are done on a daily basis for the first 2 weeks.
3. This drug class does not have an effect on the bronchioles of the lungs.
4. They are generally used in combination with other heart-failure drugs.

Answer: 4

Explanation:

1. Initial doses are small.
2. Initial doses are doubled every 2 weeks until the optimal dose is achieved.
3. Beta-adrenergic blockers can be selective to beta<sub>1</sub> receptors or nonselective. Nonselective blockers block beta<sub>1</sub> and beta<sub>2</sub> receptors. The blockage of beta<sub>2</sub> receptors can affect the bronchioles of the lungs.
4. Beta-adrenergic blockers are rarely used to treat heart failure alone. They are commonly used in combination with angiotensin-converting enzyme inhibitors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-5 Describe the treatment of heart failure with beta-adrenergic blockers.

MNL Learning Outcome: Examine drugs used for heart failure.

21) The nurse is preparing a dose of digoxin (Lanoxin) for a client. Which vital sign should the nurse assess prior to giving this medication?

1. Apical pulse
2. Temperature
3. Blood pressure
4. Respiratory rate

Answer: 1

Explanation:

1. An apical pulse should be checked for one full minute prior to administering digoxin. If the heart rate is low (generally 60 bpm), the medication should be withheld and the healthcare provider informed. Digoxin can suppress electrical activity within the heart and lower the heart rate.
2. Temperature is not the greatest concern.
3. Blood pressure is not the greatest concern.
4. Respiratory rate is not the greatest concern.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-6 Describe the treatment of heart failure with cardiac glycosides.

MNL Learning Outcome: Examine drugs used for heart failure.

22) A client is receiving milrinone (Primacor) as treatment for heart failure. Which adverse effect should the nurse identify as being the most serious from this medication?

1. Ventricular dysrhythmia
2. Nausea
3. Headache
4. Atrial dysrhythmia

Answer: 1

Explanation:

1. Milrinone is a phosphodiesterase inhibitor that can cause ventricular dysrhythmias.
2. Nausea can occur but is not as serious as another adverse effect.
3. Headache can occur but is not as serious as another adverse effect.
4. Atrial dysrhythmias can occur but are not as serious as another adverse effect.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-7 Describe the treatment of heart failure with vasodilators and positive inotropic drugs.

MNL Learning Outcome: Examine drugs used for heart failure.

23) A client is being evaluated for heart failure affecting the right side of the heart. Which finding should the nurse expect to assess?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Ankle edema
2. Enlarged liver
3. Displaced apical heart rate
4. Shortness of breath
5. Coughing

Answer: 1, 2, 3

Explanation:

1. In right heart failure, the blood backs up into the venous system, resulting in peripheral edema.
2. In right heart failure, the blood backs up into the venous system, resulting in engorgement of organs such as the liver.
3. A displaced apical heart rate indicates cardiac hypertrophy has developed. Cardiac hypertrophy is associated with right heart failure.
4. Shortness of breath is a manifestation of left heart failure.
5. Coughing is a manifestation of left heart failure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

24) A client is having a routine physical examination. Which condition should the nurse identify that contributes to the development of heart failure?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Chronic hypertension
2. Coronary artery disease
3. Diabetes mellitus
4. HIV
5. Mitral stenosis

Answer: 1, 2, 3, 5

Explanation:

1. Chronic hypertension is associated with the development of heart failure.
2. Coronary artery disease is associated with the development of heart failure.
3. Diabetes is associated with the development of heart failure.
4. HIV is not associated with the development of heart failure.
5. Mitral stenosis is associated with the development of heart failure.

Page Ref: 366

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

25) The nurse reviews with a client the pathophysiology of heart failure. Which statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My heart enlarged in order to compensate for the effects of heart failure."
2. "My nervous system kicks in to compensate for the effects of heart failure."
3. "My body will decrease blood flow to other organs in order to compensate for heart failure."
4. "My body will release sodium to decrease plasma volume."
5. "My blood vessels will dilate to decrease blood pressure."

Answer: 1, 2, 3

Explanation:

1. Ventricular hypertrophy occurs as a compensatory mechanism of heart failure.
2. One of the fastest homeostatic responses to diminished cardiac output is the activation of the sympathetic nervous system. The increased heart rate resulting from sympathetic activation is a normal compensatory mechanism that serves to increase cardiac output.
3. When cardiac output in a patient with heart failure is diminished, blood flow to the kidneys is reduced.
4. In heart failure, sodium is retained, which increases fluid and plasma volume.
5. In heart failure, vasoconstriction occurs, which increases blood pressure.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 27-1 Identify the etiology and pathogenesis of heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

26) A client is in stage A of heart failure. Which treatment should the nurse anticipate being prescribed?

1. Angiotensin-converting enzyme (ACE) inhibitor
2. Lifestyle modifications
3. Beta blocker
4. Cardiac glycoside

Answer: 2

Explanation:

1. An ACE inhibitor is included in the treatment plan for a client in stage B heart failure.
2. Lifestyle modifications are included in the treatment plan for a client with stage A heart failure.
3. A beta blocker may be added in stage B treatment of heart failure and will be implemented in stage C.
4. Cardiac glycosides are added in stage B treatment of heart failure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 27-2 Explain the classification of heart failure and pharmacologic approaches for managing the disorder.

MNL Learning Outcome: Examine drugs used for heart failure.

27) The nurse is caring for a client in heart failure. Which classification of medications should the nurse anticipate being prescribed to increase cardiac output by increasing the force of myocardial contractions?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Angiotensin-receptor blockers (ARBs)
2. Cardiac glycosides
3. Adrenergic blockers
4. Phosphodiesterase inhibitors
5. Angiotensin-converting enzyme (ACE) inhibitors

Answer: 2, 4

Explanation:

1. ARBs increase cardiac output by lowering blood pressure and decreasing blood volume.
2. Cardiac glycosides increase cardiac output by increasing the force of myocardial contractions.
3. Adrenergic blockers decrease cardiac workload by slowing the heart rate ( $\beta_1$ ) and decreasing blood pressure ( $\alpha_1$ ).
4. Phosphodiesterase inhibitors increase cardiac output by increasing the force of myocardial contractions.
5. ACE inhibitors increase cardiac output by lowering blood pressure and decreasing blood volume.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for heart failure.

MNL Learning Outcome: Examine drugs used for heart failure.

28) A client with heart failure is taking lisinopril (Prinivil). Which laboratory value should the nurse monitor in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Uric acid
2. Blood urea nitrogen (BUN)
3. Potassium
4. Alanine transaminase/aspartate aminotransferase
5. Serum drug levels

Answer: 2, 3

Explanation:

1. Lisinopril does not affect the levels of uric acid.
2. Lisinopril may affect renal function and alter the BUN level.
3. Lisinopril may cause hyperkalemia. Because of this, potassium levels should be monitored.
4. There is no evidence that lisinopril affects liver function.
5. Lisinopril does not require drug serum levels to be monitored.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 27-3 Describe the treatment of heart failure with drugs affecting the renin-angiotensin system.

MNL Learning Outcome: Examine drugs used for heart failure.

29) A client with heart failure is prescribed a vasodilator. In which way should the nurse expect this medication to relieve the client's symptoms?

1. Decrease afterload
2. Reduce preload
3. Improve cardiac contractility
4. Reduce fluid overload

Answer: 2

Explanation:

1. Vasodilators do not decrease afterload.
2. Vasodilators can relieve symptoms of heart failure by reducing preload and decreasing the cardiac workload.
3. Cardiac glycosides and phosphodiesterase inhibitors improve cardiac contractility.
4. Diuretics reduce fluid overload.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 27-7 Describe the treatment of heart failure with vasodilators and positive inotropic drugs.

MNL Learning Outcome: Examine drugs used for heart failure.

30) The nurse reviews with a client actions to take to treat heart failure. Which client statement indicates teaching about self-care actions was effective?

1. "I will cut back on my smoking."
2. "I will check my pulse every few days."
3. "I will schedule my labwork if I am not feeling well."
4. "I will weigh myself every day in the morning after I wake up."

Answer: 4

Explanation:

1. The client should be referred to a smoking cessation program.
2. The client should check pulse and blood pressure daily.
3. The client should schedule laboratory work according to the healthcare provider's prescription.
4. The client should weigh themselves daily, ideally at the same time of day, and report a weight loss or gain of more than 1 kg (2 lb) in a 24-hour period.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 27-2 Explain the classification of heart failure and pharmacologic approaches for managing the disorder.

MNL Learning Outcome: Examine drugs used for heart failure.

***Pharmacology for Nurses, 7e (Adams)***

**Chapter 28 Drugs for Angina Pectoris and Myocardial Infarction**

1) The nurse reviews health history information received during a client assessment. Which lifestyle behavior should the nurse discuss to help reduce the risk of coronary artery disease?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Abstain from smoking
2. Decrease stress
3. Limit alcohol consumption
4. Maintain optimal weight
5. Limit sodium intake

Answer: 1, 3, 4, 5

Explanation:

1. Abstinence from smoking reduces the risk of coronary artery disease.
2. Coronary artery disease results from the formation of arterial plaque. Stress does not contribute to the formation of plaque in the arterial arteries.
3. Limiting alcohol consumption reduces the risk of coronary artery disease.
4. Maintenance of optimal weight reduces the risk of coronary artery disease.
5. Limiting sodium intake reduces the risk of coronary artery disease.

Page Ref: 381

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

2) The nurse is reviewing the myocardial blood supply for a client with coronary artery disease. Which statement made by the client indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The heart has right and left arteries that arise from the aorta."
2. "The coronary arteries carry blood away from the heart to the right atrium."
3. "The heart receives its oxygen through the blood that fills it."
4. "Coronary arteries primarily carry blood to the left ventricle."
5. "The right and left arteries have smaller branches that go around the heart."

Answer: 1, 5

Explanation:

1. The myocardium receives blood from the right and left coronary arteries that arise from aortic sinuses at the base of the aorta.
2. The coronary veins, not arteries, carry blood to the right atrium.
3. Although the heart is filled with blood, this is not its source of oxygen.
4. The coronary arteries supply blood to all areas of the heart, not primarily the left ventricle.
5. The right and left coronary arteries diverge into smaller branches that encircle the heart.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

3) A client asks if angina is the same thing as having a heart attack. Which response should the nurse make?

1. "They have some things in common, for example, severe emotional distress and panic can accompany both angina and myocardial infarction."
2. "Angina means the heart muscle is not getting enough oxygen, while heart attack, or myocardial infarction, means part of your heart has died."
3. "Actually, it depends on what type of angina you mean; there are several types."
4. "They are basically the same."

Answer: 2

Explanation:

1. This is a true statement but is not the best explanation for the client.
2. A myocardial infarction indicates ischemia and necrosis have occurred to the affected part of the myocardium. Angina results from ischemia without necrosis.
3. There are several types of angina; however, this response does not answer the client's question.
4. There are differences between angina and myocardial infarction.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

4) The nurse is planning care for a client with angina. Which outcome should the nurse identify as appropriate for this client?

1. The client will experience relief of chest pain with anticoagulant therapy.
2. The client will experience relief of chest pain with nitrate therapy.
3. The client will experience relief of chest pain with aspirin therapy.
4. The client will experience relief of chest pain with therapeutic lifestyle changes.

Answer: 2

Explanation:

1. Anticoagulant therapy is used to prevent additional thrombi from forming post-myocardial infarction; it will not relieve angina pain.
2. A primary goal in the treatment of angina is to reduce the intensity and frequency of angina episodes. Rapid-acting organic nitrates are the drugs of choice for terminating an acute angina episode.
3. Aspirin therapy following an acute myocardial infarction dramatically reduces mortality due to its antiplatelet function; it will not relieve angina pain.
4. Therapeutic lifestyle changes are significant if the client is to maintain a healthy heart, but they will not relieve chest pain; this is accomplished with medications.

Page Ref: 382

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

5) A client is prescribed nitroglycerin (Nitrostat) for angina. Which client statement should cause the nurse to be concerned?

1. "I'm getting married tomorrow; I hope my erectile dysfunction isn't a problem."
2. "I'm going water skiing tomorrow; I hope my angina isn't a problem."
3. "I really don't like taking those little pills. I would like to use a patch."
4. "My angina has been a little more frequent. I would like something to take for the pain."

Answer: 1

Explanation:

1. A client with erectile dysfunction is likely to use sildenafil (Viagra). Concurrent use of sildenafil (Viagra) and nitroglycerine (Nitrostat) may cause life-threatening hypotension and cardiovascular collapse.

2. An activity like waterskiing could precipitate angina; however, this can be prevented by taking nitroglycerine (Nitrostat) prior to the activity (prophylactic use).

3. Patches can be substituted for pills in many cases; this is a reasonable question but not the primary concern at this time.

4. Occurrences of stable angina can change somewhat in frequency; however, an analgesic is not indicated.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

6) The nurse is preparing to administer nitroglycerine via the intravenous (IV) route. Which action should the nurse take prior to giving this medication?

1. Use gloves to prevent self-administration.
2. Instruct the client to avoid moving the arm in which the medication is infusing.
3. Cover the IV bottle to decrease light exposure.
4. Darken the room to decrease light exposure.

Answer: 3

Explanation:

1. Wearing gloves is indicated when the nurse is administering nitroglycerine paste or ointment to prevent self-administration.
2. There is no reason for the client to avoid arm movement during IV administration of nitroglycerine.
3. For IV administration, cover the IV bottle to reduce degradation of nitrates due to light exposure.
4. Darkening the room is not as effective as covering the IV bottle to decrease light exposure. Also, the patient might not want the room darkened.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

7) A client is prescribed a beta-adrenergic agonist. Which action should the nurse explain this drug has on the cardiovascular system?

1. Increase cardiac output
2. Dilate arterial smooth muscle
3. Decrease the contractility of the heart
4. Dilate venous system

Answer: 3

Explanation:

1. Beta-adrenergic agonists decrease cardiac output.
2. Calcium channel blockers dilate arterial smooth muscle.
3. Beta-adrenergic agonists decrease the contractility of the heart.
4. Organic nitrates dilate venous system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 28-5 Describe the actions and adverse effects of beta adrenergic blockers when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

8) A client receiving diltiazem (Cardizem) asks why a headache occurs after taking the medication. Which response should the nurse make to the client?

1. "Diltiazem (Cardizem) causes the blood vessels in your brain to widen, giving you the headache."
2. "Diltiazem (Cardizem) increases prostaglandin synthesis, giving you the headache."
3. "Diltiazem (Cardizem) releases Substance P, activating pain receptors in your brain and giving you the headache."
4. "Diltiazem (Cardizem) causes the blood vessels in your brain to narrow, giving you the headache."

Answer: 1

Explanation:

1. Side effects of diltiazem (Cardizem) are generally not serious and are related to vasodilation: headache, dizziness, and edema of the ankles and feet.
2. Diltiazem (Cardizem) does not alter prostaglandin synthesis.
3. Diltiazem (Cardizem) does not lead to a release of Substance P.
4. Side effects of diltiazem (Cardizem) are related to vasodilation, not vasoconstriction.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 28-6 Describe the actions and adverse effects of calcium channel blockers when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

9) A client recovering from an acute myocardial infarction asks why alteplase (Activase) is prescribed. Which response should the nurse make to the client?

1. "It dilates the arteries in the heart so it can get more oxygen."
2. "It is dissolving the clot that has caused your heart attack."
3. "It thins your blood so more clots will not develop."
4. "It will increase the strength of the muscles in the heart during each beat."

Answer: 2

Explanation:

1. Alteplase is a fibrinolytic used to dissolve clots in the coronary arteries.
2. When treating myocardial infarction, fibrinolytic therapy is administered to dissolve clots obstructing the coronary arteries, thus restoring circulation to the myocardium.
3. Alteplase is a fibrinolytic used to dissolve clots in the coronary arteries.
4. Alteplase is a fibrinolytic used to dissolve clots in the coronary arteries.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 28-8 Describe the actions and adverse effects of fibrinolytics when treating myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

10) A client is receiving alteplase (Activase). Which assessment should the nurse make a priority?

1. Fluid balance
2. Abnormal bleeding
3. Blood glucose
4. Respiratory rate

Answer: 2

Explanation:

1. Alteplase does not alter fluid balance in the body.
2. Alteplase is used to dissolve blood clots. The most serious adverse effect of this medication is abnormal bleeding.
3. Alteplase does not cause hypoglycemia.
4. Alteplase does not decrease oxygen to the brain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-8 Describe the actions and adverse effects of fibrinolytics when treating myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

11) The nurse instructs a client with angina on the use of nitroglycerin (Nitrostat). Which client

statement indicates that additional teaching is required?

1. "I can take up to five tablets to resolve the chest pain."
2. "If my pain is not reduced 5 minutes after taking one tablet, I should call EMS."
3. "I should take a tablet as soon as chest pain occurs."
4. "I might get a headache from this medication."

Answer: 1

Explanation:

1. When directed to do so, clients should follow the time frame of taking a nitroglycerin (Nitrostat) and expect pain to resolve in 2 to 4 minutes. Five tablets are not the amount of medication the client should be expected to take.
2. If pain is not gone within 5 minutes after taking one tablet, EMS should be notified. The client should not take additional nitroglycerin until directed to do so. No additional teaching is indicated.
3. The client should not delay when chest pain occurs and should take a tablet immediately. No additional teaching is necessary.
4. A headache is a common side effect of this medication. No additional teaching is necessary.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning  
Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

12) The nurse is preparing teaching for a client with angina. Which information about the primary therapeutic action of an antianginal medication should the nurse include?

1. "The medication decreases how much oxygen your heart needs."
2. "This medication will thin your blood so your heart receives more oxygen."
3. "This medication increases the amount of oxygen your heart receives."
4. "This medication increases the oxygen to your heart by increasing nitric oxide production."

Answer: 1

Explanation:

1. The primary means by which antianginal drugs terminate an acute angina episode, or decrease the frequency of angina episodes, is by reducing the myocardial demand for oxygen.
2. Antianginal medications do not have an anticoagulant effect.
3. Antianginal medications cannot increase the oxygen supply to the myocardium.
4. Antianginal medications do not increase nitric acid production.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 28-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for angina and myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

13) The nurse is assessing a client experiencing chest pain. Which client statement indicates that the nurse should prepare a plan of care for unstable angina?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My chest has started hurting even if I am just watching television."
2. "My chest starts hurting if I climb one set of stairs."
3. "My attacks of chest pain are coming more frequently now."
4. "The pain occurs most often after I eat a meal."
5. "The pain is worse than it used to be."

Answer: 1, 3, 5

Explanation:

1. Pain at rest is considered unstable angina.
2. Chest pain that is predictable is usually stable angina.
3. Increased frequency of pain indicates that the angina is unstable.
4. Pain that occurs after eating a meal is not associated with unstable angina.
5. Pain that is worsening indicates the angina is unstable.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 28-2 Describe the signs and symptoms of angina pectoris.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

14) A client is prescribed a transdermal nitroglycerin patch. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Place the patch on the upper arm or leg.
2. Rotate sites of application.
3. Remove the patch for an hour each day.
4. Cleanse the skin under the patch after removal.
5. Triple-wrap the patch in plastic wrap for disposal.

Answer: 2, 4

Explanation:

1. The patch should not be applied to the arm or leg as increased muscle activity may increase drug absorption.
2. Sites of application should be rotated to prevent irritation.
3. The patch should be removed for a period of 6-12 hours as directed, typically at night or when the client is sleeping.
4. After removing the patch, it is important to cleanse the skin to remove any residual medication.
5. While it is important to dispose of these patches carefully, triple wrapping in plastic wrap is not necessary.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 28-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for angina and myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

15) A client is prescribed atenolol (Tenormin). Which assessment should the nurse complete before giving the client this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Temperature
2. Pulse
3. Respirations
4. Blood pressure
5. Oxygen saturation

Answer: 2, 4

Explanation:

1. It is not necessary to assess the client's temperature prior to the administration of atenolol.
2. Atenolol selectively blocks beta<sub>1</sub>-adrenergic receptors in the heart. Its effectiveness in treating angina is attributed to its ability to slow heart rate and reduce contractility, both of which lower myocardial oxygen demand. The medication should be held if the pulse is less than 60 beats per minute.
3. It is not necessary to assess the client's respirations prior to the administration of atenolol.
4. Atenolol selectively blocks beta<sub>1</sub>-adrenergic receptors in the heart. Its effectiveness in treating angina is attributed to its ability to slow heart rate and reduce contractility, both of which lower myocardial oxygen demand. The medication should be held if the client is hypotensive
5. It is not necessary to assess the client's oxygen saturation prior to the administration of atenolol.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-5 Describe the actions and adverse effects of beta adrenergic blockers when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

16) A client is diagnosed with coronary artery disease. Which information should the nurse include when teaching the client about this condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Plaque causes narrowing of the artery.
2. Plaque begins to accrue early in life.
3. Plaque causes narrowing of the veins.
4. Plaque affects the elasticity of the artery.
5. Plaque builds up in the myocardial tissue.

Answer: 1, 2, 4

Explanation:

1. Plaque builds up, resulting in a narrowing of the artery.
2. Plaque accumulates gradually, over a period of 40-50 years in some individuals, but actually begins to accrue early in life.
3. Plaque builds up in the arterial system.
4. Plaque affects the elasticity of the artery, impairing the artery's ability to dilate properly when the myocardium requires additional blood flow.
5. Plaque builds up in the arterial system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

17) The nurse reviews information collected during a client assessment. Which symptom should the nurse identify that is most likely to be related to angina as opposed to a myocardial infarction?

1. Chest pain relieved by one sublingual nitroglycerin
2. Chest pain that radiates to the client's back
3. Chest pain that occurred while the client was eating breakfast
4. Chest pain accompanied by shortness of breath

Answer: 1

Explanation:

1. It is essential to recognize the difference between angina and myocardial infarction because the treatments are very different. Chest pain that is relieved by one sublingual nitroglycerin is most likely angina. Chest pain that is not relieved by nitroglycerin would most likely be from a myocardial infarction.
2. Chest pain that is radiating can be from angina or a myocardial infarction.
3. Chest pain related to angina is often experienced when the person is doing a strenuous activity. Eating is not strenuous.
4. Chest pain that is accompanied by shortness of breath can be from angina or a myocardial infarction.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-2 Describe the signs and symptoms of angina pectoris.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

18) The nurse is caring for a client with stable angina. Which primary pharmacologic goal should the nurse identify for this client?

1. Increase venous blood flow to the right atrium.
2. Eliminate blockages by using thrombolytics.
3. Establish a regular exercise program and diet plan.
4. Increase cardiac oxygen supply and reduce cardiac oxygen demand.

Answer: 4

Explanation:

1. Increasing the supply of venous blood to the right atrium might be beneficial but is not a primary goal.
2. Eliminating blockages via thrombolytics would be attributed to myocardial infarctions, not to stable angina.
3. Establishing a regular exercise program and diet plan would be important but is not a pharmacologic goal.
4. The primary pharmacologic goals are to reduce oxygen demand of the heart and increase oxygen supply.

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Cognitive Level: Applying

Client Need/Sub: Physiological Adaptation: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-2 Describe the signs and symptoms of angina pectoris.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

19) The nurse is caring for a client with chest pain. Which medications should the nurse anticipate being prescribed to reduce the heart's demand for oxygen by lowering the heart rate?

1. Anticoagulants and beta-adrenergic blockers
2. Calcium channel blockers and anticoagulants
3. Organic nitrates and calcium channel blockers
4. Beta-adrenergic blockers and calcium channel blockers

Answer: 4

Explanation:

1. Anticoagulants prevent blood clots from forming.
2. Anticoagulants prevent blood clots from forming.
3. Organic nitrates dilate vessels.
4. Beta blockers and some calcium channel blockers reduce cardiac demand by lowering heart rate.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-5 Describe the actions and adverse effects of beta adrenergic blockers when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

20) A client is prescribed topical nitroglycerin paste. For which adverse effect should the nurse assess in the client?

1. Rash
2. Shortness of breath
3. Headache
4. Ventricular tachycardia

Answer: 3

Explanation:

1. Development of a rash is not common.
2. Shortness of breath is not common.
3. Nitroglycerin can dilate cerebral vessels, leading to headaches.
4. Dysrhythmias are not common.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

21) A client is experiencing chest pain. Which biomarker should the nurse anticipate being prescribed for this client?

1. White blood cells
2. Troponin
3. Myoglobin
4. Creatinine

Answer: 2

Explanation:

1. White blood cells are not used as a biomarker for a myocardial infarction.
2. Troponin is a cardiac-specific and the most sensitive and effective biomarker after a myocardial infarction.
3. Myoglobin is not a specific biomarker of cardiac muscle.
4. Creatinine is not a cardiac biomarker of cardiac muscle.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-7 Explain how the ECG and marker enzymes are used to diagnose myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

22) The nurse is caring for a group of clients. Which client should the nurse anticipate being prescribed alteplase (Activase) after a myocardial infarction?

1. A 54-year-old female with type 2 diabetes
2. A 45-year-old female with a 2-week-old cranial artery repair
3. A 62-year-old with a recent hemorrhagic stroke
4. A 70-year-old male with active gastrointestinal bleed

Answer: 1

Explanation:

1. Contraindications for alteplase therapy include a history of cerebrovascular attack (stroke), recent surgical procedure, and active bleeding.
2. Recent surgical procedures preclude use of alteplase.
3. Recent stroke precludes use of alteplase.
4. Active bleeding precludes use of alteplase.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-8 Describe the actions and adverse effects of fibrinolytics when treating myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

23) A client is prone to the development of blood clots. Which medication should the nurse anticipate being prescribed for the client?

1. Captopril (Capoten)
2. Reteplase (Retavase)
3. Morphine
4. Eptifibatide

Answer: 4

Explanation:

1. Captopril is an angiotensin-converting enzyme inhibitor.
2. Reteplase is used to break up blood clots.
3. Morphine is used for analgesia.
4. Eptifibatide is a glycoprotein IIb/IIIa inhibitor (antiplatelet agent) used to prevent blood clots.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-9 Explain the use of adjunct medications for treating myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

24) A client asks which conditions will cause the heart to need more oxygen. Which condition should the nurse discuss with the client?

1. Atherosclerosis
2. Hyperthyroidism
3. Asthma
4. Hepatitis B

Answer: 1

Explanation:

1. Atherosclerosis narrows arterial vessels, increasing the need for oxygen to the heart.
2. Hyperthyroidism is not associated with angina.
3. Asthma is not associated with angina.
4. Hepatitis B is not associated with angina.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

25) A client experiencing bradycardia is suspected of overdosing on diltiazem (Cardizem). Which treatment should the nurse anticipate being prescribed?

1. Dopamine
2. Atropine
3. Calcium chloride
4. Narcan

Answer: 2

Explanation:

1. Dopamine is a vasopressor that may be used to reverse hypotension.
2. Atropine may be used to reverse bradycardia caused by a diltiazem overdose.
3. Calcium chloride is administered to reverse hypotension or heart block induced by a diltiazem overdose.
4. Narcan is used to reverse the effects from an opioid overdose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-6 Describe the actions and adverse effects of calcium channel blockers when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

26) The nurse is caring for a client with angina. Which goal should the nurse identify as appropriate for medication therapy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Decreased oxygen consumption of the brain
2. Increased myocardial contractility
3. Increased blood flow to the peripheral blood vessels
4. Decreased blood flow to the myocardium
5. Decreased myocardial oxygen demand

Answer: 4, 5

Explanation:

1. Decreasing brain oxygen consumption does not affect angina.
2. Increasing contractility will increase myocardial oxygen supply, worsening the angina.
3. Increasing blood flow to peripheral blood vessels has no effect on angina.
4. Angina is a mismatch between myocardial oxygen supply and oxygen demand. A basic antianginal strategy is to dilate the veins so the heart receives less blood.
5. Angina is a mismatch between myocardial oxygen supply and oxygen demand. A basic antianginal strategy is to decrease myocardial oxygen demand.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-2 Describe the signs and symptoms of angina pectoris.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

27) The nurse is preparing teaching for a client with angina. Which information should the nurse include about antianginal therapy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The medication increases the heart rate.
2. The medication dilates the veins so that the heart receives less blood.
3. The medication causes the heart to contract with less force.
4. The medication increases blood pressure.
5. The medication increases the ability of the body to produce red blood cells.

Answer: 2, 3

Explanation:

1. Medications used to treat angina decrease the heart rate.
2. Medications that dilate the veins so that the heart receives less blood treat angina by decreasing preload.
3. Medications that cause the heart to contract with less force reduce contractility and are useful in treating angina.
4. Medications used to treat angina decrease blood pressure.
5. Antianginal medications do not cause the body to produce more red blood cells.

Page Ref: 382

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 28-1 Explain the pathogenesis of coronary artery disease.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

28) A client is recovering from an acute myocardial infarction (MI). Which medication should the nurse anticipate being prescribed to reduce the mortality of the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Aspirin
2. Beta blockers
3. Narcotic analgesics
4. Angiotensin-converting enzyme (ACE) inhibitors
5. Antidysrhythmics

Answer: 1, 2, 4

Explanation:

1. Aspirin is often prescribed to reduce the risk of mortality after an acute MI.
2. Beta blockers are often prescribed to reduce the risk of mortality after an acute MI.
3. Narcotic analgesics are not prescribed to reduce the risk of mortality after an acute MI. They are administered to manage severe pain and anxiety associated with MIs.
4. ACE inhibitors are prescribed to reduce the risk of mortality after an acute MI.
5. Antidysrhythmics are prescribed to treat dysrhythmias after an acute MI, not to reduce the risk of death after an acute MI.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 28-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for angina and myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

29) A client is recovering from an acute myocardial infarction. For which condition should the nurse anticipate fibrinolytic therapy to be contraindicated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Venous emboli
2. History of intracranial hemorrhage
3. Severe uncontrolled hypertension
4. Intracranial neoplasm
5. Arteriovenous malformation

Answer: 2, 3, 4, 5

Explanation:

1. Fibrinolytic therapy is not contraindicated in a client with a history of venous emboli.
2. Fibrinolytic therapy is contraindicated in a client with a history of intracranial hemorrhage.
3. Fibrinolytic therapy is contraindicated in a client with severe uncontrolled hypertension.
4. Fibrinolytic therapy is contraindicated in a client with an intracranial neoplasm.
5. Fibrinolytic therapy is contraindicated in a client with arteriovenous malformation.

Page Ref: 390

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 28-8 Describe the actions and adverse effects of fibrinolytics when treating myocardial infarction.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

30) A client is prescribed nitroglycerin paste. Which action should the nurse take before giving the client the medication?

1. Apply gloves
2. Monitor urine output
3. Measure temperature
4. Assess oxygen saturation

Answer: 1

Explanation:

1. Gloves should be applied before preparing a dose of nitroglycerin paste to prevent self-administration.
2. Urine output does not need to be monitored before providing a dose of nitroglycerin paste.
3. Temperature does not need to be assessed prior to giving a dose of nitroglycerin paste.
4. Oxygen saturation does not need to be assessed prior to giving a dose of nitroglycerin paste.

Page Ref: 386

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.C.3.3. Value own role in preventing errors | AACN Domains and Competencies: 5.3 Contribute to a culture of provider and work environment safety. | NLN

Competencies: Quality and Safety: 4. Use technologies that contribute to safety. |

Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 28-4 Describe the actions and adverse effects of organic nitrates when treating angina.

MNL Learning Outcome: Examine drugs used for anginal pectoris and myocardial infarction.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 29 Drugs for Shock**

1) A client asks about the different types of shock. Which response should the nurse make?

1. "There are many kinds of shock: heart failure, nervous system damage, loss of blood, and respiratory failure."
2. "Allergic response is the most fatal type of shock; other types involve loss of blood, heart failure, and liver failure."
3. "There are many kinds of shock that also include infection, nervous system damage, and loss of blood."
4. "Heart failure is the most serious kind of shock; others include infection, kidney failure, and a significant loss of blood."

Answer: 3

Explanation:

1. Respiratory failure is not a type of shock.
2. Liver failure is not a type of shock.
3. Hypovolemic shock can result from hemorrhaging, trauma to the brain or spinal cord can result in neurogenic shock, inadequate cardiac output can lead to cardiogenic shock, a recent infection can result in septic shock, and a history of allergies with a sudden onset of symptoms can result in anaphylactic shock.
4. Kidney failure is not a type of shock.

Page Ref: 396

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: I2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.  
MNL Learning Outcome: Examine drugs used for shock.

2) The nurse is evaluating vital signs of assigned clients. Which assessment finding should the nurse associate with shock?

1. BP: 140/90 mmHg; P: 46, weak and irregular; R: 24 and shallow
2. BP: 50/0 mmHg; P: 126, weak and thready; R: 14 and shallow
3. BP: 80/20 mmHg; P: 122, weak and thready; R: 28 and shallow
4. BP: 130/88 mmHg; P: 90, bounding; R: 32 and shallow

Answer: 3

Explanation:

1. A client in shock will have a low blood pressure and a rapid heart rate.
2. A client in shock will have rapid respirations; a respiratory rate of 14 is considered normal.
3. The central problem with hypovolemic shock is the inability of the cardiovascular system to send sufficient blood to the vital organs, with the heart and brain being affected early in the progression of the disease. Assessing the client's cardiovascular status will result in a blood pressure that is low; a heart rate that may be rapid with a weak, thready pulse; and breathing that is rapid and shallow.
4. A client in shock will have a low blood pressure and a rapid, weak, not bounding, pulse.

Page Ref: 396

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.

MNL Learning Outcome: Examine drugs used for shock.

- 3) The nurse reinforces the treatment plan for a client receiving normal human serum albumin (Albuminar) to treat hypovolemic shock. Which client statement indicates teaching was effective?
1. "The infusion is a protein that pulls water into my blood vessels."
  2. "The infusion is a protein that causes my kidneys to conserve fluid."
  3. "The infusion is a super-concentrated salt solution that helps my body conserve fluid."
  4. "The infusion is a liquid that has electrolytes in it to pull water into my blood vessels."

Answer: 1

Explanation:

1. Colloids are proteins or other large molecules that stay suspended in the blood for long periods because they are too large to easily cross membranes. They draw water molecules from the cells and tissues into the blood vessels through their ability to increase plasma oncotic pressure.
2. Normal human serum albumin (Albuminar) does not act on the kidneys.
3. Normal human serum albumin is not a concentrated saline solution.
4. Crystalloids are intravenous (IV) solutions that contain electrolytes, not proteins, in concentrations resembling those of plasma.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 29-3 Compare and contrast the use of blood products, colloids, and crystalloids used in fluid replacement therapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

- 4) A family member of a client receiving intravenous dobutamine asks how that helps the blood pressure. Which response should the nurse make?
1. "The medication is a vasopressor and helps the heart beat more effectively, which will increase blood pressure."
  2. "Vasopressor drugs act on the renin-angiotensin system, which will increase the blood pressure."
  3. "The medication is a vasopressor and will help stabilize blood pressure by making the blood vessels smaller."
  4. "The medication is a vasopressor, which will help increase blood flow to peripheral muscles."

Answer: 3

Explanation:

1. Vasopressors do not increase cardiac contractility.
2. Vasopressors do not affect the renin-angiotensin system.
3. In early shock, the body compensates for the fall in blood pressure by activating the sympathetic nervous system. The body's ability is limited, so sympathomimetic vasoconstrictors, known as vasopressors, have been used to stabilize blood pressure in clients with shock.
4. Vasopressors do not increase blood flow to peripheral muscles.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

5) A client in shock is receiving human serum albumin (Albuminar). For which reason should the nurse auscultate the client's breath sounds?

1. Hyperresonance
2. Absence of breath sounds in the lower lobes
3. Inspiratory stridor
4. Crackles

Answer: 4

Explanation:

1. Hyperresonance is assessed by percussion, not auscultation.
2. An absence of breath sounds is heard with a pneumothorax, not with pulmonary edema.
3. Stridor is auscultated with airway obstruction, not pulmonary edema.
4. Because human serum albumin (Albuminar) pulls fluid into the vascular space, circulatory overload is a serious complication. The nurse must monitor breath sounds; crackles will be heard with pulmonary congestion.

Page Ref: 398

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-3 Compare and contrast the use of blood products, colloids, and crystalloids used in fluid replacement therapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

6) The nurse notes that the intravenous infusion of norepinephrine (Levophed) has been accidentally abruptly discontinued. Which action should the nurse take?

1. Obtain an oxygen saturation reading.
2. Notify the healthcare provider.
3. Assess the client's blood pressure.
4. Administer oxygen via a rebreather mask.

Answer: 3

Explanation:

1. There is no indication the client needs an assessment of their oxygen saturation.
2. The nurse will notify the healthcare provider after an assessment of the client's condition.
3. Discontinuation of vasopressor therapy should be gradual, due to the possibility of rebound hypotension and undesirable cardiac effects. Therefore, the nurse should immediately assess the client's blood pressure.
4. There is no indication the client requires oxygen.

Page Ref: 400

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

7) A client is to receive intravenous dopamine (Intropin). Which medication should the nurse have immediately available prior to initiating the dopamine?

1. Phentolamine (Regitine)
2. Naltrexone (Revia)
3. Epinephrine (Adrenalin)
4. Flumazenil (Romazicon)

Answer: 1

Explanation:

1. Extravasation of dopamine can cause severe, localized vasoconstriction, resulting in tissue necrosis. The antidote for this is phentolamine.
2. Naltrexone is used for opiate overdose.
3. Epinephrine is used for anaphylaxis.
4. Flumazenil is used for benzodiazepine overdose.

Page Ref: 401

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-5 Explain the rationale for using inotropic drugs in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

8) A client is receiving a low dose of dopamine. Which effect should the nurse anticipate in the client?

1. Vasoconstriction and increased blood pressure
2. Stabilization of fluid loss
3. Urinary output of at least 50 mL/h
4. Increased cardiac output

Answer: 3

Explanation:

1. Vasoconstriction and increased blood pressure occur with high, not low, doses of dopamine when alpha-adrenergic receptors are stimulated.
2. Dopamine does not prevent or stabilize fluid loss.
3. At low doses, dopamine stimulates dopaminergic receptors, especially in the kidneys, leading to vasodilation and an increased blood flow through the kidneys.
4. Increased cardiac output occurs with high, not low, doses of dopamine when beta<sub>1</sub>-adrenergic receptors are stimulated.

Page Ref: 401

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 29-5 Explain the rationale for using inotropic drugs in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

9) A client with an allergy to bee stings is stung on the arm. Which symptom should the nurse anticipate treating with epinephrine (EpiPen)?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Itchy skin
2. Nonproductive cough
3. Warm, dry skin
4. Hoarseness
5. Hyperactivity

Answer: 1, 2, 4

Explanation:

1. Itchy skin occurs with an allergic reaction.
2. A nonproductive cough occurs with an allergic reaction.
3. Warm, dry skin is not a symptom of anaphylaxis.
4. Hoarseness can occur with an allergic reaction.
5. Hyperactivity is not associated with an allergic reaction.

Page Ref: 402-403

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.

MNL Learning Outcome: Examine drugs used for shock.

10) A client is receiving normal serum albumin (Albuminar). Which outcome should the nurse expect to assess in the client?

1. Afebrile
2. Free of a rash
3. Normal breathing pattern
4. Alert and oriented

Answer: 3

Explanation:

1. A fever may occur, but remaining afebrile is not the expected priority outcome.
2. A rash is a possible adverse outcome, but normal breathing is the expected priority outcome.
3. Albumin is a natural blood product, and allergic reactions are possible. A serious symptom of an allergic reaction is dyspnea or difficulty breathing.
4. Alertness and orientation are important but are not priority outcomes.

Page Ref: 399

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-3 Compare and contrast the use of blood products, colloids, and crystalloids used in fluid replacement therapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

11) A client is prescribed epinephrine (Adrenalin). For which condition should the nurse review the medical record before giving the medication to the client?

1. Type 1 diabetes
2. Narrow-angle glaucoma
3. Hypothyroidism
4. Human immunodeficiency virus (HIV) infection

Answer: 2

Explanation:

1. Type 1 diabetes is not adversely affected by the administration of a prescribed vasoconstrictor.
2. Vasoconstrictors may increase intraocular pressure, so the nurse should assess for narrow-angle glaucoma.
3. Hypothyroidism is not adversely affected by the administration of a prescribed vasoconstrictor.
4. HIV infection is not adversely affected by administration of a prescribed vasoconstrictor.

Page Ref: 404

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

12) A client is prescribed dopamine. Which equipment should the nurse secure for use when giving this medication?

1. Oxygen cannula
2. Intravenous (IV) pump
3. Pulse oximeter
4. Sequential compression devices

Answer: 2

Explanation:

1. An oxygen cannula is an important piece of equipment but not as important as an IV pump.
2. Inotropic medications are administered as a continuous infusion. Always infuse these medications via an IV pump.
3. A pulse oximeter is an important piece of equipment but not as important as an IV pump.
4. Sequential compression devices are important pieces of equipment but not as important as an IV pump.

Page Ref: 401

Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 5.2 Contribute to a culture of patient safety. | NLN Competencies: Quality and Safety: Use technologies that contribute to safety. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-5 Explain the rationale for using inotropic drugs in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

13) A client experiencing a severe allergic reaction to peanuts reports having a known hypersensitivity to epinephrine (Adrenalin). Which response should the nurse make to the client?

1. "I will let the healthcare provider know about this immediately; we will need to choose an alternative prescription."
2. "Do you know what has been used before with this allergic response?"
3. "This is a life-threatening situation; a prior hypersensitivity is not an absolute contraindication."
4. "You most likely will be prescribed IV diphenhydramine (Benadryl)."

Answer: 3

Explanation:

1. Speaking with the healthcare provider to choose an alternative prescription is not indicated.
2. The nurse must speak with conviction to decrease anxiety in the client.
3. Although epinephrine is contraindicated for known hypersensitivity to the drug, in life-threatening situations there are no absolute contraindications to its use. The nurse must speak with conviction to decrease anxiety in the client.
4. Diphenhydramine (Benadryl) may not be the best choice.

Page Ref: 404

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 3.2 Engage in effective partnerships. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-6 Identify drugs used in the pharmacotherapy of anaphylaxis and discuss their actions.

MNL Learning Outcome: Examine drugs used for shock.

14) A client is receiving norepinephrine (Levophed). Which action should the nurse take when the client has a blood pressure of 230/120 mm Hg?

1. Assess for signs/symptoms of a stroke.
2. Notify the healthcare provider.
3. Slow the rate of the infusion
4. Discontinue the administration of the medication.

Answer: 3

Explanation:

1. Assessing for signs of stroke is not the highest priority.
2. The nurse would notify the healthcare provider if the client has not responded to the titration of the prescription based on the parameters from the healthcare provider.
3. The nurse would slow the infusion rate while monitoring the blood pressure. This medication is titrated to effect.
4. This medication is given to raise blood pressure, but the drug must be titrated to effect. There is no indication to discontinue the medication nor should the medication be abruptly discontinued.

Page Ref: 400

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

15) The nurse is reviewing data assessed from a client. Which finding should the nurse identify as a contributing factor to hypovolemic shock?

1. Infectious process
2. Brain or spinal cord trauma
3. Inadequate cardiac output
4. Volume depletion

Answer: 4

Explanation:

1. Infectious process can cause septic shock.
2. Brain or spinal cord trauma can cause neurogenic shock.
3. Inadequate cardiac output is associated with cardiogenic shock.
4. Volume depletion occurs in hypovolemic shock.

Page Ref: 396

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.

MNL Learning Outcome: Examine drugs used for shock.

16) A client is diagnosed with cardiogenic shock. Which finding should the nurse expect to assess in this client?

1. Bradycardia
2. Low temperature
3. Restlessness and anxiety
4. Tachycardia and low blood pressure

Answer: 4

Explanation:

1. Bradycardia is not associated with the initial symptoms of shock.
2. Low temperature is not associated with metabolic changes.
3. Restlessness and anxiety are typically associated with a neurogenic shock reaction.
4. Tachycardia and low blood pressure are associated with cardiogenic shock.

Page Ref: 396

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.

MNL Learning Outcome: Examine drugs used for shock.

17) A client is demonstrating symptoms of shock. Which initial intervention should the nurse be prepared to implement?

1. Initiate an intravenous (IV) line
2. Assess the level of consciousness
3. Assess the blood pressure and pulse
4. Apply a cardiac monitor

Answer: 4

Explanation:

1. Starting an IV would be dependent on the type of shock being treated.
2. Assessing level of consciousness is important in neurological assessment but not the first priority.
3. Taking the blood pressure is critical but not the first priority.
4. Applying a cardiac monitor is an initial nursing intervention for maintaining the CAB of life support: chest compressions, airway, and breathing.

Page Ref: 397

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-2 Explain the treatment priorities for a patient who is in shock.

MNL Learning Outcome: Examine drugs used for shock.

18) A client is prescribed an infusion of colloids. In which way should the nurse describe this infusion?

1. Contain electrolytes
2. Readily leave the blood and enter cells
3. Too large to cross membranes
4. Promote urine output

Answer: 3

Explanation:

1. Colloids are made up of protein and other large molecules.
2. Crystalloids, not colloids, readily cross into cells. Colloids contain proteins that are too large to leave the blood.
3. Colloids contain proteins that are too large to easily cross membranes.
4. Crystalloids promote urine output, whereas colloids increase oncotic pressure.

Page Ref: 398

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-3 Compare and contrast the use of blood products, colloids, and crystalloids used in fluid replacement therapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

19) A client is diagnosed with cardiogenic shock. In which way should the nurse explain this diagnosis to the client?

1. It occurs due to the presence of bacteria and toxins in the blood.
2. It occurs in relation to blood loss.
3. It occurs due to pump failure.
4. It occurs due to loss of sympathetic nerve activity.

Answer: 3

Explanation:

1. Septic shock occurs due to the presence of bacteria and toxins in the blood.
2. Hemorrhagic shock occurs in relation to blood loss.
3. Cardiogenic shock occurs due to pump failure.
4. Neurogenic shock occurs due to loss of sympathetic nerve activity.

Page Ref: 396

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-1 Identify the causes and symptoms of the different types of shock.

MNL Learning Outcome: Examine drugs used for shock.

20) A client is prescribed norepinephrine. Which outcome should the nurse expect to assess in the client?

1. Increased blood flow
2. Increased heart rate
3. Decrease cardiac output
4. Vasoconstriction

Answer: 4

Explanation:

1. The mechanism of action of norepinephrine does not include increasing blood flow.
2. Norepinephrine has an inotropic effect, resulting in a decrease in the heart rate.
3. The mechanism of action of norepinephrine does not include decreasing the cardiac output.
4. Vasoconstrictors such as norepinephrine produce vasoconstriction of the vessels, thereby increasing blood pressure.

Page Ref: 400

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

21) A client is receiving dobutamine (Dobutrex). Which assessment finding indicates the client is experiencing an adverse effect of the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Palpitations
2. Drop in blood pressure
3. Cold extremities
4. Headache
5. Blurred vision

Answer: 1, 2, 3

Explanation:

1. Palpitations are an adverse effect of dobutamine (Dobutrex).
2. Hypotension is an adverse effect of dobutamine (Dobutrex).
3. Cold extremities are an adverse effect of dobutamine (Dobutrex).
4. A headache is an adverse effect of digoxin (Lanoxin).
5. Blurred vision is an adverse effect of digoxin (Lanoxin).

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-7 Use the steps of the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

22) The nurse is planning care for a client. For which condition should the nurse anticipate norepinephrine to be prescribed?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Acute shock
2. Cardiac arrest
3. Septic shock
4. Hypovolemic shock
5. Cardiogenic shock

Answer: 1, 2, 3

Explanation:

1. The primary indication for norepinephrine is acute shock.
2. The primary indication for norepinephrine is cardiac arrest.
3. Norepinephrine is the vasopressor of choice for septic shock.
4. Dopamine is the medication of choice for hypovolemic shock.
5. Dopamine is the medication of choice for cardiogenic shock.

Page Ref: 400

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-4 Explain the rationale for using vasoconstrictors and vasopressors in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

23) A client is prescribed epinephrine. For which condition should the nurse assess prior to giving epinephrine for anaphylaxis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Premature ventricular contractions
2. Hypertension
3. Hyperthyroidism
4. Pheochromocytoma
5. Hypotension

Answer: 1, 2, 3

Explanation:

1. The drug must be used with caution in clients with dysrhythmias because epinephrine may worsen this condition.
2. The drug must be used with caution in clients with hypertension because epinephrine may worsen this condition.
3. The drug must be used with caution in clients with hyperthyroidism because epinephrine may worsen this condition.
4. Dopamine is contraindicated for pheochromocytoma.
5. Norepinephrine should not be administered to patients with hypotension.

Page Ref: 404

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-6 Identify drugs used in the pharmacotherapy of anaphylaxis and discuss their actions.

MNL Learning Outcome: Examine drugs used for shock.

24) A client is demonstrating signs of shock. Which action should the nurse take when caring for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cardiac monitor
2. Pulse oximeter
3. Oxygen
4. Whole blood
5. Dextran 40

Answer: 1, 2, 3

Explanation:

1. When treating shock, the client should be immediately connected to a cardiac monitor.
2. When treating shock, the client should be immediately connected to a pulse oximeter.
3. Unless contraindicated, oxygen is administered via a nonrebreather mask.
4. The use of whole blood will be decided after the type of shock is determined.
5. The use of dextran 40 will be decided after the type of shock is determined.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 29-2 Explain the treatment priorities for a patient who is in shock.

MNL Learning Outcome: Examine drugs used for shock.

25) A client is receiving dopamine. Which additional medication should the nurse question before providing it to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Monoamine oxidase (MAO) inhibitor
2. Phenytoin
3. Beta blocker
4. Digoxin
5. Aspirin

Answer: 1, 2, 3, 4

Explanation:

1. Concurrent administration with MAO inhibitors increase the alpha-adrenergic effects of dopamine.
2. Phenytoin may decrease the action of dopamine.
3. A beta blocker may inhibit the inotropic effect of dopamine.
4. Digoxin may increase the risk of dysrhythmias in the client.
5. There is no evidence to suggest a drug—drug interaction will occur if dopamine is administered to a client who takes aspirin.

Page Ref: 401

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-5 Explain the rationale for using inotropic drugs in treating shock.

MNL Learning Outcome: Examine drugs used for shock.

26) A client is treated with epinephrine for an anaphylactic reaction. Which additional medication should the nurse anticipate being prescribed for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Antibiotics
2. Antihistamines
3. Corticosteroids
4. Vasopressors
5. Vasodilators

Answer: 2, 3

Explanation:

1. There is no indication that an antibiotic is needed.
2. Antihistamines may be administered to prevent further release of histamine.
3. Corticosteroids are often prescribed to dampen the delayed hypersensitivity reaction that may occur several hours after the initial event.
4. There is no need for additional vasopressors.
5. Vasodilators are not necessary and might have adverse consequences.

Page Ref: 403

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-6 Identify drugs used in the pharmacotherapy of anaphylaxis and discuss their actions.

MNL Learning Outcome: Examine drugs used for shock.

27) A client is experiencing an anaphylactic reaction to penicillin. Which immediate goal should the nurse plan for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Normalization of blood pressure
2. Reduction of blood volume
3. Identification of other allergies
4. Reduction of inflammatory response
5. Provision of basic life support

Answer: 1, 4, 5

Explanation:

1. Restoration of normal blood pressure is a goal of the management of all shock states.
2. The goal is to restore normal blood volume.
3. It will be necessary to identify presence of other allergies, but this is not the current priority.
4. Since this is anaphylactic shock, it is important to prevent or reduce the inflammatory response.
5. Provision of basic life support is critical in all types of shock.

Page Ref: 402-403

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 29-7 Use the steps of the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

28) A client treated previously for a fractured leg had multiple experiences of anaphylactic shock. Which medication should the nurse suspect caused the reaction?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cephalosporin antibiotic
2. Topical antibiotic for use on abrasions
3. Nonsteroidal anti-inflammatory drugs (NSAIDs)
4. Opioid analgesic
5. Normal saline wash for abrasions

Answer: 1, 3, 4

Explanation:

1. Antibiotics such as penicillin and cephalosporins have a high risk for allergic reactions.
2. A topical antibiotic rarely results in anaphylaxis.
3. NSAIDs may be implicated in the development of anaphylaxis.
4. Opioid analgesics are often implicated in the development of anaphylaxis.
5. Normal saline does not cause anaphylaxis.

Page Ref: 403

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-2 Explain the treatment priorities for a patient who is in shock.

MNL Learning Outcome: Examine drugs used for shock.

29) A client receives epinephrine for an allergic reaction. Which client statements should cause the nurse concern?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I feel jittery."
2. "My heart is skipping beats."
3. "I have a pounding headache."
4. "I am so dizzy."
5. "That really hurt when you gave me that med."

Answer: 2, 3

Explanation:

1. Nervousness and tremors are common after treatment with epinephrine. These are not significant adverse effects.
2. Palpitations indicate the client is having dysrhythmias, which are significant adverse effects.
3. A pounding headache may indicate hypertension, which is significant.
4. Dizziness is common and is not a significant adverse effect.
5. Epinephrine stings or burns during administration. This feeling should quickly pass.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 29-7 Use the steps of the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for shock.

MNL Learning Outcome: Examine drugs used for shock.

30) The nurse is caring for a client in shock. Which laboratory value should the nurse monitor?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Albumin
2. Potassium
3. Calcium
4. Sodium
5. Glucose

Answer: 2, 3, 4, 5

Explanation:

1. When caring for a client in shock, the albumin level does not need to be monitored unless the client is receiving an infusion of colloid.
2. When caring for a client in shock, the potassium level should be monitored.
3. When caring for a client in shock, the calcium level should be monitored.
4. When caring for a client in shock, the sodium level should be monitored.
5. When caring for a client in shock, the glucose level should be monitored.

Page Ref: 401

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 29-6 Identify drugs used in the pharmacotherapy of anaphylaxis and discuss their actions.

MNL Learning Outcome: Examine drugs used for shock.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 30 Drugs for Dysrhythmias**

1) The nurse is teaching a client about dysrhythmias. Which statement should the nurse include in the teaching?

1. "Dysrhythmias cause serious electrolyte imbalances; this results in heart block."
2. "Dysrhythmias are the result of longstanding, uncontrolled hypertension."
3. "Dysrhythmias interrupt the normal electrical pathways in the heart so it can't beat properly."
4. "Dysrhythmias alter the blood flow through the heart and cause it to stop beating."

Answer: 3

Explanation:

1. Some dysrhythmias may result in heart block, but dysrhythmias do not cause electrolyte imbalances.
2. Dysrhythmias do not result from hypertension.
3. All dysrhythmias cause a defect in the generation or conduction of electrical impulses across the myocardium. Lack of synchronization of the atria and ventricles may have profound consequences such as decreasing cardiac output.
4. Dysrhythmias do not alter blood flow through the heart.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 30-1 Explain the etiology and classification of dysrhythmias.  
MNL Learning Outcome: Examine drugs used for dysrhythmias.

2) A client reports not understanding normal cardiac electrical conduction after watching an educational video. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Conduction through the bundle of His is the slowest in the heart."
2. "Conduction begins in the sinoatrial node and travels to the atrioventricular node."
3. "Conduction continues through the bundle branches to the Purkinje fibers."
4. "Conduction travels from the atrioventricular node through the bundle of His."
5. "The sinoatrial node is located in the left atrium."

Answer: 2, 3, 4

Explanation:

1. Conduction through the atrioventricular (AV) node is the slowest in the heart.
2. Conduction through the heart originates in the sinoatrial (SA) node and travels to the AV node.
3. Conduction travels through the right and left bundle branches to the Purkinje fibers.
4. Conduction through the heart originates in the SA node and travels through the AV node through the bundle of His.
5. The SA node is located in the right atrium.

Page Ref: 408-409

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 30-2 Illustrate the normal conduction pathway of electrical impulses across the heart.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

3) A client asks if atrial fibrillation is a serious condition and wants to know how it is treated. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "This condition is best treated with what we call antidysrhythmic drugs."
2. "This is very common; your doctor will discuss the best treatment with you."
3. "Depending on your symptoms, your healthcare provider may use an electrical shock."
4. "This is quite serious; did your healthcare provider discuss a heart transplant?"
5. "It is very serious—even more serious than a ventricular dysrhythmia."

Answer: 2, 3

Explanation:

1. Prescriptions can cause serious side effects and are normally reserved for clients with overt symptoms or for clients whose condition cannot be controlled by other means.

2. Atrial fibrillation is the most common type of dysrhythmia. The healthcare provider will determine treatment.

3. The healthcare provider will determine whether to use nonpharmacologic techniques, such as cardioversion, or an implantable cardioverter defibrillator.

4. Heart transplants are not indicated for clients with dysrhythmias.

5. Ventricular dysrhythmias are more serious than atrial dysrhythmias because they are more likely to interfere with the normal function of the heart.

Page Ref: 408

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 30-4 Identify the role of nonpharmacologic therapies in the treatment of dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

4) The nurse instructs a client about dysrhythmias. Which client statement indicates teaching was effective?

1. "The sodium, potassium, and magnesium levels must be okay for the heart to have an electrical impulse."
2. "Potassium is the most important electrolyte when it comes to the electrical impulse in the heart."
3. "The sodium, potassium, and calcium levels must be okay for the heart to have an electrical impulse."
4. "Enhancing potassium and sodium is how our prescriptions will work to prevent dysrhythmias."

Answer: 3

Explanation:

1. Changes in sodium, potassium, and calcium, not magnesium, levels generate the action potential in myocardial cells.
2. Sodium, potassium, and calcium are equally important when it comes to the myocardial action potential.
3. Changes in sodium, potassium, and calcium levels generate the action potential in myocardial cells. For this to occur, the client must have normal levels of sodium, potassium, and calcium.
4. Antidysrhythmic drugs work by blocking, not enhancing, potassium, sodium, or calcium channels.

Page Ref: 411

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 30-5 Explain how an action potential is controlled by the flow of sodium, potassium, and calcium ions across the myocardial membrane.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

5) A client with a dysrhythmia asks why cardioversion is prescribed instead of medication. Which response should the nurse make to the client?

1. "Antidysrhythmic medications have many side effects; cardioversion is considered safer."
2. "Special diets are necessary with antidysrhythmic medications, and they are hard to follow."
3. "Antidysrhythmic medications don't really work very well for most dysrhythmias."
4. "There is a high risk of seizures when you take antidysrhythmic medications."

Answer: 1

Explanation:

1. Antidysrhythmic medications can cause serious side effects and are normally reserved for clients with overt symptoms or for clients whose condition cannot be controlled by other means, such as cardioversion.
2. There is no indication for a special diet when a client is taking an antidysrhythmic drug.
3. Medications are effective for dysrhythmias; however, they have many side effects.
4. Antidysrhythmic drugs do not commonly cause seizures.

Page Ref: 411

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-4 Identify the role of nonpharmacologic therapies in the treatment of dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

6) A client asks how an antidysrhythmic drug can cause irregular heartbeats. Which response should the nurse make to the client?

1. "Your medication blocks the flow of the electrolytes in your heart, and this can cause irregular beats."
2. "The literature is not always accurate, but if you have concerns I recommend discussing them with your healthcare provider."
3. "The aspirin that you take every day will help you avoid experiencing the irregular heartbeats."
4. "Your medication is not the problem; it is when you mix it with over-the-counter drugs that you develop irregular beats."

Answer: 1

Explanation:

1. Most antidysrhythmic drugs act by interfering with myocardial action potentials, blocking the action of sodium, potassium, and calcium channels and causing some irregular beats.
2. Although it is best to discuss medications with a professional, this response does not answer the client's question.
3. Aspirin is not used to treat a dysrhythmia.
4. Mixing the medication with over-the-counter medications might result in irregular beats, but this is not the best answer.

Page Ref: 411

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-6 Identify the general mechanisms of action of antidysrhythmic drugs.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

7) The nurse is caring for a client receiving an antidysrhythmic medication. For which adverse effect should the nurse monitor the client?

1. Depression, irritability, fatigue, and nausea
2. Anorexia, insomnia, confusion, and 2+ pitting peripheral edema
3. Low-grade fever, diaphoresis, weakness, and dry mucous membranes
4. Palpitations, chest pain, weakness, and fatigue

Answer: 4

Explanation:

1. Depression, irritability, fatigue, and nausea are not side effects of antidysrhythmic medications.
2. Anorexia, insomnia, confusion, and 2+ pitting peripheral edema are not side effects of antidysrhythmic medications.
3. Low-grade fever, diaphoresis, weakness, and dry mucous membranes are not side effects of antidysrhythmic medications.
4. Side effects of antidysrhythmic medications include palpitations, chest pain, weakness, and fatigue.

Page Ref: 412

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-6 Identify the general mechanisms of action of antidysrhythmic drugs.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

8) The nurse instructs a client about procainamide. Which client statement indicates teaching is effective?

1. "I will not take the medication on an empty stomach."
2. "This medication may make me feel confused."
3. "I will take this medication even when I am feeling well."
4. "If my pulse is less than 60, I will not take my medication."

Answer: 3

Explanation:

1. Procainamide hydrochloride can be taken on an empty stomach.
2. Confusion is an adverse effect of the medication and should be immediately reported to the healthcare provider.
3. It is very important for clients to understand that medication must be taken as directed, even if the client is feeling well.
4. The beta-adrenergic blocking drugs cause bradycardia, not Group 1A cardiac antiarrhythmic drugs like procainamide hydrochloride.

Page Ref: 418

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 30-7 Describe the use of sodium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

9) A male client is taking propranolol (Inderal). Which question should the nurse ask to assess for the client's adherence when taking the medication?

1. "Have you noticed any changes in your sexual functioning?"
2. "Has your appetite increased or decreased?"
3. "Have you noticed any changes in your bowel function?"
4. "Have you noticed any difficulty in your ability to concentrate?"

Answer: 1

Explanation:

1. Side effects such as diminished libido and impotence may result in noncompliance in male patients.
2. Appetite is not affected by propranolol (Inderal).
3. Change in bowel function is not an adverse effect of propranolol (Inderal).
4. The inability to concentrate is not an adverse effect of propranolol except in an older adult that is receiving high doses of the prescription.

Page Ref: 415

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-8 Describe the use of beta adrenergic blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

10) A client with type 1 diabetes is prescribed propranolol (Inderal). Which outcome should the nurse make a priority for this client?

1. The client will maintain blood glucose within normal limits.
2. The client will decrease the required number of calories/day.
3. The client will maintain adequate peripheral circulation.
4. The patient will perform activities of daily living.

Answer: 1

Explanation:

1. Propranolol should be used cautiously in clients with type 1 diabetes due to the hypoglycemic effects.
2. Propranolol should not affect the client's appetite so it is not necessary to decrease the daily caloric intake.
3. Peripheral circulation should not be affected by propranolol.
4. Activities of daily living are important for any client but should not be affected by propranolol.

Page Ref: 415

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 30-8 Describe the use of beta adrenergic blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

11) The nurse instructs a client about propranolol (Inderal). Which client statement indicates teaching was effective?

1. "I will take my pulse every day and call my healthcare provider if it is higher than 100."
2. "I will call my healthcare provider if my anxiety increases and I start worrying again."
3. "I will take my pulse every day and call my healthcare provider if it is less than 60."
4. "I will call my healthcare provider if I lose more than 3 pounds a week."

Answer: 3

Explanation:

1. Beta blockers decrease, not increase, the heart rate.
2. Beta blockers actually decrease, not increase, anxiety.
3. Beta blockers decrease contractions of the myocardium and decrease the speed of conduction through the atrioventricular node. This can result in a significant decrease in heart rate, and the client should let the healthcare provider know if the heart rate falls below 60.
4. Beta blockers predispose the client to weight gain, not weight loss.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 30-8 Describe the use of beta adrenergic blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

12) A client is prescribed amiodarone (Pacerone). For which additional medication should the nurse be concerned?

1. Oxycodone (OxyContin)
2. Omeprazole (Prilosec)
3. Warfarin (Coumadin)
4. Fluoxetine (Prozac)

Answer: 3

Explanation:

1. Oxycodone has no interactions with amiodarone.
2. Omeprazole has no interactions with amiodarone.
3. Amiodarone can block the metabolism of warfarin.
4. Fluoxetine has no interactions with amiodarone.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-9 Describe the use of potassium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

13) A client is prescribed amiodarone (Nexterone), For which laboratory value should the nurse notify the healthcare provider?

1. Sodium 140 mEq/L
2. Potassium 3.1 mEq/L
3. Potassium 4.9 mEq/L
4. International normalized ratio (INR) of 12 seconds

Answer: 2

Explanation:

1. 140 mEq/L is a normal sodium level.
2. Hypokalemia and hypomagnesemia should be corrected prior to initiating therapy with amiodarone.
3. 4.9 mEq/L is a normal potassium level.
4. Twelve seconds is a normal INR level.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 30-9 Describe the use of potassium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

14) A client is hesitant to take verapamil (Calan). Which response should the nurse make to the client?

1. "This medication is safe, and most clients do very well with it."
2. "This medication increases your blood pressure, but we will be monitoring that."
3. "This medication has many side effects, but you should be okay."
4. "This medication is a potassium channel blocker and is considered safe."

Answer: 1

Explanation:

1. Calcium channel blockers are safe medications that are well tolerated by most clients.
2. Verapamil lowers blood pressure and decreases the cardiac workload.
3. All medications have side effects, but telling the client that they should be okay is not reassuring.
4. Verapamil is a calcium channel blocker.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-10 Describe the use of calcium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

15) A client taking verapamil (Calan) asks if it is okay to take herbal supplements with the

medication. Which response should the nurse make to the client?

1. "Some herbal supplements may interact with your medication."
2. "Using herbal supplements may increase your blood pressure too much."
3. "Herbal supplements are okay as long as you take calcium salts with them."
4. "Most herbal supplements are okay, but you should avoid St. John's wort."

Answer: 1

Explanation:

1. Verapamil should be used with caution with herbal supplements.
2. Herbal supplements may further decrease the blood pressure.
3. Taking calcium salts with herbal supplements will not affect the interactions with verapamil.
4. All herbal supplements, not just St. John's wort, should be avoided.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-10 Describe the use of calcium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

16) The nurse is reviewing the mechanism of action of intravenous (IV) glucagon as a treatment for an overdose of propranolol (Inderal) with a new nurse. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Improves atrioventricular (AV) node conduction
2. Dilates the coronary arteries
3. Increases the heart rate
4. Enhances myocardial contractility
5. Increases the fluid volume in the vascular system

Answer: 1, 3, 4

Explanation:

1. IV glucagon reverses the cardiac depression caused by beta-adrenergic antagonist overdose by improving AV node conduction.
2. IV glucagon does not dilate the coronary arteries.
3. IV glucagon reverses the cardiac depression caused by beta-adrenergic antagonist overdose by increasing the heart rate.
4. IV glucagon reverses the cardiac depression caused by beta-adrenergic antagonist overdose by enhancing myocardial contractility.
5. IV glucagon does not increase the fluid volume in the vascular system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 30-8 Describe the use of beta adrenergic blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

17) The nurse is reviewing the anatomy of the heart. In which way should the nurse describe the purpose of the atrioventricular (AV) node?

1. Pace the heart at 40-60 bpm.
2. Delay the impulse from the sinoatrial (SA) node.
3. Pace the heart at 60-100 bpm.
4. Enhance the impulse from the SA node.

Answer: 2

Explanation:

1. The AV junction does pace the heart at 40-60 bpm but not when the SA node is pacing the heart.
2. The AV node delays the impulse as it travels from the atria to the ventricles.
3. The AV junction does not pace the heart at 60-100 bpm.
4. The AV node does not enhance the impulse as it travels from the atria to the ventricles.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-2 Illustrate the normal conduction pathway of electrical impulses across the heart.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

18) The nurse is caring for a client with a heart rate of 170 bpm and a normal QRS duration? Which condition is the client likely experiencing?

1. Tachydysrhythmia originating from the bundle branches.
2. Tachydysrhythmia originating from the atria.
3. Tachydysrhythmia originating from the ventricles.
4. Tachydysrhythmia originating from the Purkinje fibers.

Answer: 2

Explanation:

1. Given a normal QRS duration, the rhythm is not coming from the bundle branches.
2. Given a normal QRS duration, the rhythm is coming from the atria.
3. Given a normal QRS duration, the rhythm is not coming from the ventricles.
4. Given a normal QRS duration, the rhythm is not coming from the Purkinje fibers.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-1 Explain the etiology and classification of dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

19) The nurse is reviewing depolarization of cardiac cells. Which electrolytes should the nurse identify that rush into the cell?

1. Sodium and potassium
2. Calcium and magnesium
3. Calcium and sodium
4. Chloride and potassium

Answer: 3

Explanation:

1. Potassium is not the electrolyte involved in depolarization.
2. Magnesium is not the electrolyte involved in depolarization.
3. An action potential begins when sodium and calcium flow into the cell, resulting in depolarization.
4. Chloride is not the electrolyte involved in depolarization.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 30-5 Explain how an action potential is controlled by the flow of sodium, potassium, and calcium ions across the myocardial membrane.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

20) The nurse is preparing a teaching tool about antidysrhythmic medication. Which adverse effect should the nurse include that is shared among all antidysrhythmic drugs?

1. Edema
2. Impotence
3. Photosensitivity
4. Worsen dysrhythmic effects

Answer: 4

Explanation:

1. Not all antidysrhythmic agents cause edema.
2. Not all antidysrhythmic agents cause impotence.
3. Not all antidysrhythmic agents cause photosensitivity.
4. All antidysrhythmic agents can worsen existing dysrhythmias or create new ones.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 30-6 Identify the general mechanisms of action of antidysrhythmic drugs.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

21) A client is diagnosed with paroxysmal supraventricular tachycardia (PSVT). Which medication should the nurse anticipate being prescribed?

1. Sodium channel blocker
2. Beta-adrenergic antagonist
3. Potassium channel blocker
4. Nucleoside

Answer: 4

Explanation:

1. Sodium channel blockers are not used to treat PSVT.
2. Beta-adrenergic antagonists are not used to treat PSVT.
3. Potassium channel blockers are not used to treat PSVT.
4. A nucleoside is the first-line drug for the short-term treatment of PSVT. A calcium channel blocker is used to treat PSVT.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 30-10 Describe the use of calcium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

22) A client is diagnosed with angina. Which antidysrhythmic agent should the nurse anticipate being prescribed because it dilates coronary arteries and is frequently used to treat angina?

1. Verapamil (Calan)
2. Amiodarone (Cordarone)
3. Procainamide (Pronestyl)
4. Lidocaine (Xylocaine)

Answer: 1

Explanation:

1. Verapamil is a calcium channel blocker that is often used to treat angina by dilating coronary arteries.
2. Amiodarone is a potassium channel blocker that prolongs the action potential and decreases automaticity.
3. Procainamide is a sodium channel blocker that reduces automaticity and slows conduction of the action potential across the myocardium.
4. Lidocaine is a sodium channel blocker and is indicated for ventricular dysrhythmias.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 30-10 Describe the use of calcium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

23) A client is diagnosed with ventricular tachycardia. Which classification of drug should the nurse anticipate being used to treat this condition?

1. Potassium channel blocker
2. Calcium channel blocker
3. Beta-adrenergic antagonist
4. Sodium channel blocker

Answer: 4

Explanation:

1. A potassium channel blocker is not used to treat ventricular tachycardia.
2. A calcium channel blocker is not used to treat ventricular tachycardia.
3. A beta-adrenergic antagonist is not used to treat ventricular tachycardia.
4. A sodium channel blocker is used to treat ventricular tachycardia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 30-9 Describe the use of potassium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

24) The nurse is preparing teaching about antidysrhythmic medication. Which information should the nurse include when teaching a client about these medications?

1. "Elevate your extremities if you notice any swelling."
2. "Weigh yourself every other day."
3. "Take the first dose of your prescription before bed."
4. "Take your medication while you are lying down."

Answer: 3

Explanation:

1. The client should be instructed to immediately notify the healthcare provider if they note any swelling in the extremities.
2. The client should be instructed to weigh themselves daily ideally at the same time of the day and keep a record of their weight and daily pulse.
3. The client should be instructed to take the first dose of the prescription prior to bed and be cautious during the next few doses until the effect of the prescriptions is known.
4. The client should be instructed to rise slowly from lying or sitting to standing to avoid dizziness or falls.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 30-12 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

25) A client is taking verapamil (Calan). Which assessment finding indicates the client is experiencing an adverse effect?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client tells the nurse they have frequent headaches.
2. The client has 3+ edema in the ankles and feet.
3. The client states, "Everything I eat tastes like metal."
4. The client states, "I got so dizzy yesterday that I had to lie down for a while."
5. The client's face is flushed.

Answer: 1, 2, 4

Explanation:

1. A headache is a potential adverse effect associated with verapamil.
2. Edema of the ankles and feet are a potential adverse effect of verapamil.
3. A metallic taste is not an adverse effect associated with verapamil.
4. Dizziness is an expected adverse effect of verapamil.
5. Facial flushing is not an expected adverse effect associated with verapamil.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-10 Describe the use of calcium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

26) A client with atrial fibrillation is prescribed a once-daily dose of amiodarone. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I will avoid drinking grapefruit juice."
2. "I understand the effect of the prescription will last 4 to 8 weeks after I stop taking it."
3. "I will monitor my blood pressure and report any significant changes."
4. "I will avoid the use of St John's wort."
5. "I will follow a low-sodium diet."

Answer: 1, 2, 3, 4

Explanation:

1. Grapefruit juice may increase the toxicity of amiodarone.
2. The effect of amiodarone can last 4 to 8 weeks after being discontinued.
3. The client should monitor their blood pressure and notify the healthcare provider if the parameters fall above or below what has been set.
4. St. John's wort may decrease the effect of amiodarone.
5. The client does not have to follow a sodium-restricted diet. Low-fat food choices should be encouraged.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 30-9 Describe the use of potassium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

27) A client is taking amiodarone for a cardiac condition. Which client statement should cause the nurse concern?

1. "I have a cough that is getting worse."
2. "I often feel tired throughout the day."
3. "I have lost 5 pounds over the last 3 weeks."
4. "I have a rash on my skin that will not go away."

Answer: 1

Explanation:

1. The most serious adverse effect of taking amiodarone is pulmonary toxicity.
2. Fatigue is an adverse effect of amiodarone but not the most concerning.
3. Anorexia is an adverse effect of amiodarone but not the most concerning.
4. A rash is an adverse effect of amiodarone but not the most concerning.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 30-9 Describe the use of potassium channel blockers in treating dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

28) The nurse instructs a client who will take a twice-daily antidysrhythmic medication. Which client statement indicates additional teaching is required?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "If I get the flu, I should stop taking the medication until my fever goes down."
2. "I should take my doses as close to 12 hours apart as I can."
3. "If I forget a dose of the medication, I should take two pills for the next dose."
4. "If I can't take the medication for a couple of days because I am sick, I should call the clinic for advice."
5. "I should get my medication refilled before I am completely out of medicine."

Answer: 1, 3

Explanation:

1. Antidysrhythmic medications should not be stopped abruptly.
2. Doses of antidysrhythmic medications should be evenly spaced.
3. Antidysrhythmic medications should not be double-dosed to make up for missed doses.
4. The healthcare provider should be consulted if the client is going to miss medication doses for more than 1 day.
5. Abrupt discontinuation of antidysrhythmic medications can have serious side effects, so an adequate supply of the medication should be available.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 30-12 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

29) A client is diagnosed with an atrial dysrhythmia. Which client statement indicates additional information about medication to treat the condition is required?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Since I can't drink coffee anymore, I have started drinking diet cola in the mornings."
2. "I have found that a glass of wine after work and one with dinner helps me to relax from my stressful job."
3. "We have celebrated several birthdays since I saw you last. I love chocolate birthday cake."
4. "I have really worked at stopping my smoking since I was last here."
5. "My friends and I have found several restaurants in our area that offer good, low-fat meals."

Answer: 1, 2, 3

Explanation:

1. Unless the diet cola is decaffeinated, it should also be avoided.
2. Alcohol should be limited when taking medications for atrial arrhythmias.
3. Chocolate contains caffeine, which should be avoided when taking medications for atrial arrhythmias.
4. Smoking cessation should be encouraged in clients taking medications for atrial dysrhythmia.
5. Lowered fat intake is encouraged in clients taking medications for atrial arrhythmias.

Page Ref: 419

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 30-12 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for dysrhythmias.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

30) The nurse is reviewing the physiology of the cardiac system. Which action should the nurse identify that occurs initially in the cardiac conduction pathway?

1. The action potential moves over the bundle branches.
2. The action potential moves through the atrioventricular (AV) node.
3. The sinoatrial (SA) node generates an action potential.
4. The action potential travels across the bundle of His.

Answer: 3

Explanation:

1. An action potential moving over the bundle branches is not the first action that occurs in the cardiac conduction pathway.
2. An action potential moving through the AV node is not the first action that occurs in the cardiac conduction pathway.
3. Once an action potential is generated in the SA node, it moves to the AV node, across the bundle of His, across the bundle branches, and through the Purkinje fibers. It is at this point that the action potential reaches the ventricles, causing the muscle to contract.
4. An action potential moving across the bundle of His is not the first action that occurs in the cardiac conduction pathway.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 30-2 Illustrate the normal conduction pathway of electrical impulses across the heart.

MNL Learning Outcome: Examine drugs used for dysrhythmias.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 31 Drugs for Coagulation Disorders**

1) A client with cirrhosis of the liver asks the nurse why there is an increased risk for bleeding. Which response should the nurse make to the client?

1. "The liver is injured and unable to manufacture platelets."
2. "The liver thickens your blood so it is less likely to clot."
3. "The liver is injured and cannot make clotting factors."
4. "The liver is breaking down your clotting factors too quickly."

Answer: 3

Explanation:

1. The liver is not responsible for manufacturing platelets.
2. The liver is not responsible for making the blood thick.
3. The liver is responsible for the production of essential clotting factors necessary to prevent bleeding.
4. The liver is not responsible for breaking down clotting factors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 31-1 Illustrate the major steps of hemostasis and the coagulation cascade.  
MNL Learning Outcome: Examine drugs used for coagulation disorders.

2) The nurse is caring for a client with a deep vein thrombosis receiving heparin. Which outcome should the nurse make a priority?

1. The client will comply with dietary restrictions.
2. The client will keep the right leg elevated on two pillows.
3. The client will not disturb the intravenous infusion.
4. The client will not experience bleeding.

Answer: 4

Explanation:

1. Dietary restrictions are important but not the highest priority.
2. Elevation of the affected extremity is important but not the highest priority.
3. Disturbing the intravenous could relate to bleeding, but this does not directly correlate with heparin.
4. An absence of bleeding is a priority outcome for any client receiving anticoagulant therapy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-3 Describe thromboembolic and coagulation disorders that are indications for pharmacotherapy.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

3) The nurse notes a client's warfarin (Coumadin) level is 7 mcg/mL. Which action should the nurse take?

1. Continue the treatment and monitor the client.
2. Administer protamine sulfate and hold the next dose of warfarin (Coumadin).
3. Hold the next dose of warfarin (Coumadin) and contact the healthcare provider.
4. Hold the next dose of warfarin (Coumadin) and request an international normalized ratio (INR).

Answer: 1

Explanation:

1. A warfarin level of 7 mcg/mL is within a therapeutic range.
2. Protamine sulfate is the antidote for heparin, not warfarin.
3. It is not necessary to hold the next dose of warfarin or notify the healthcare provider.
4. A warfarin level of 7 mcg/mL is within a therapeutic range.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.6

Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science:

Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts:

Nursing Process: Implementation

Learning Outcome: 31-4 Identify the primary mechanisms by which coagulation modifier drugs act.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

4) The nurse instructs a client who is prescribed pentoxifylline (Trental). Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The medication will soften the red blood cells so they can fit through the smaller blood vessels."
2. "The medication decreases the platelets so the blood is less likely to clot."
3. "The medication decreases the 'stickiness' of the blood."
4. "The medication affects how the liver makes clotting factors."
5. "The medication destroys some of the clotting factors."

Answer: 1, 2, 3

Explanation:

1. Pentoxifylline acts on red blood cells to reduce their viscosity and increase their flexibility to allow them to enter partially occluded vessels.
2. Pentoxifylline has an antiplatelet action.
3. Pentoxifylline decreases the viscosity or "stickiness" of blood.
4. Pentoxifylline does not interfere with the manufacture of clotting factors in the liver.
5. Pentoxifylline does not destroy any clotting factors.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 31-6 Compare and contrast the different types of antiplatelet drugs.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

5) A client is prescribed enoxaparin (Lovenox). Which route should the nurse prepare to administer the medication?

1. Administer the medication orally.
2. Administer the medication into the abdomen, subcutaneously.
3. Administer the medication via slow intravenous push.
4. Administer the medication intramuscularly into the thigh.

Answer: 2

Explanation:

1. Administering the prescription orally is not the correct method of administration for enoxaparin.
2. Administering the prescription into the abdomen, subcutaneously, is the correct method of administration for enoxaparin.
3. Administering the prescription via slow intravenous push is not the correct method of administration for enoxaparin.
4. Administering the prescription intramuscularly into the thigh is not the correct method of administration of enoxaparin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-4 Identify the primary mechanisms by which coagulation modifier drugs act.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

6) A client is prescribed heparin therapy. Which additional order should the nurse expect for this client?

1. Activated partial thromboplastin time (aPTT) value
2. Weekly weights
3. Advil as needed for headaches
4. Low vitamin K diet

Answer: 1

Explanation:

1. The dosing for the heparin nomogram system calculates the appropriate heparin dose using weight, aPTT value, and clinical indication for the prescription.
2. Daily weights are necessary to determine medication dosage.
3. Advil could increase the risk of bleeding.
4. Vitamin K is the antidote for warfarin (Coumadin) overdose; there is no need to restrict it with heparin therapy.

Page Ref: 429

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for coagulation disorders.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

7) The nurse instructs a client taking an anticoagulant. Which client statement indicates teaching has been effective?

1. "I should wear a medical alert bracelet that says I'm on an anticoagulant."
2. "I need to eat more protein while I am taking this medication."
3. "I can take enteric-coated aspirin but not plain aspirin for my arthritis."
4. "I must limit my intake of vitamin C while I'm on warfarin."

Answer: 1

Explanation:

1. Clients on anticoagulant therapy should wear a medical alert bracelet.
2. There is no reason to increase protein intake while taking anticoagulants.
3. Aspirin is contraindicated while a client is on anticoagulant therapy.
4. The intake of vitamin K, not vitamin C, must be limited when a patient receives an anticoagulant.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 31-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for coagulation disorders.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

8) The nurse is instructing a client who is prescribed warfarin (Coumadin). Which food should the nurse instruct the client to avoid?

1. Tomato salad with kale and basil
2. Whole-wheat bread with margarine
3. Salt substitute
4. Fettuccine Alfredo

Answer: 1

Explanation:

1. Kale is high in vitamin K and must be avoided when a client receives warfarin.
2. Whole-wheat bread with margarine is not high in vitamin K so is not contraindicated when a client receives warfarin.
3. A salt substitute is not high in vitamin K so is not contraindicated when a client receives warfarin.
4. Fettuccine Alfredo is not high in vitamin K so is not contraindicated when a client receives warfarin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

9) The nurse is reviewing the process of hemostasis after an injury with a client. Which should the nurse identify as the initial event in this process?

1. Platelets become sticky.
2. Plasma proteins convert to active forms.
3. The vessel spasms.
4. Von Willebrand's factor is activated.

Answer: 3

Explanation:

1. Platelets do not become sticky during the initial event in the hemostasis process.
2. Plasma proteins do not convert to active forms during the initial event in the hemostasis process.
3. The blood vessel spasms, causing constriction during the initial event in the hemostasis process.
4. Von Willebrand's factor is not activated during the initial event in the hemostasis process.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 31-1 Illustrate the major steps of hemostasis and the coagulation cascade.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

10) The nurse instructs a client about enoxaparin (Lovenox). Which client statement indicates that teaching was effective?

1. "Enoxaparin inhibits the synthesis of prostaglandins."
2. "Enoxaparin increases the time it takes for me to form a clot."
3. "Enoxaparin dissolves small clots so I won't have a stroke."
4. "Enoxaparin increases the flexibility of my blood cells."

Answer: 2

Explanation:

1. Enoxaparin does not inhibit the synthesis of prostaglandins.
2. All anticoagulant drugs will increase the normal time the body takes to form clots.
3. Enoxaparin does not dissolve small clots.
4. Enoxaparin does not increase the flexibility of blood cells.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

11) The nurse notes the blood pressure and red blood cell (RBC) count of a client receiving heparin is low. Which action should the nurse suspect has occurred?

1. Dehydration
2. Internal bleeding
3. Decreased activated partial thromboplastin time (aPTT)
4. Clot formation

Answer: 2

Explanation:

1. Dehydration is not a likely cause of the client's low blood pressure and RBC count.
2. A low blood pressure and RBC count in the client could indicate internal bleeding.
3. A decreased aPTT does not cause low blood pressure or a low RBC count.
4. Formation of clots does not cause a decrease in the RBC count.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 31-4 Identify the primary mechanisms by which coagulation modifier drugs act.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

12) The nurse notes that a client receiving warfarin (Coumadin) has a high international normalized ratio (INR). Which question should the nurse include in the assessment?

1. "Do you eat a lot of garlic?"
2. "Have you been eating a lot of salads and vegetables?"
3. "Do you drink a lot of milk?"
4. "Are you restricting your fluids?"

Answer: 1

Explanation:

1. Garlic has been shown to decrease the aggregation of platelets, thus producing an anticoagulant effect. Clients taking anticoagulant medications should limit their intake of garlic.
2. Salads and vegetables contain vitamin K, which is an antidote for warfarin. This would not impact the INR.
3. Milk does not impact the INR when a client receives warfarin.
4. Dehydration does not impact the INR when a client receives warfarin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

13) A client who experienced a stroke is prescribed alteplase (Activase). Which question should the nurse ask the client?

1. "Do you take any other prescriptions?"
2. "Are you currently being treated for hypertension?"
3. "Do you have any other medical conditions?"
4. "Do you know what time the stroke occurred?"

Answer: 4

Explanation:

1. A prescription history is important but not the priority at this time.
2. Current treatment for hypertension is important to determine but is not the priority at this time.
3. A medical history is important but not the priority at this time.
4. Alteplase (Activase) must be given within 3 hours of a thrombotic stroke for maximum effectiveness, so it is important to ascertain the time the stroke occurred.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 31-7 Describe the indications and adverse effects for fibrinolytics.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

14) The nurse is instructing a client about the development of a pulmonary embolism. Which

anatomical area should the nurse identify as the point of origin?

1. Right ventricle
2. Left atrium
3. Left ventricle
4. Right atrium

Answer: 4

Explanation:

1. Thrombi and emboli typically do not arise from ventricles.
2. An embolus from the left atrium will cause a stroke or an arterial infarction elsewhere in the body.
3. Thrombi and emboli typically do not arise from ventricles.
4. An embolus from the right atrium will cause pulmonary emboli.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 31-3 Describe thromboembolic and coagulation disorders that are indications for pharmacotherapy.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

15) The nurse is preparing to assess a client with von Willebrand's disease (vWD). Which priority question should the nurse ask the client?

1. "Do you have any other medical conditions?"
2. "Do you have heavy menstrual periods?"
3. "Have you ever been pregnant?"
4. "What are you currently using for birth control?"

Answer: 2

Explanation:

1. Inquiring about current medical conditions is an important question but not the priority question.
2. A common bleeding disorder in women is vWD. Women with vWD are at risk for anemia, menstrual pain, and limitations of daily activities.
3. Inquiring about a history of pregnancies is an important question but not the priority question.
4. Inquiring about the current method of birth control is an important question but not the priority question.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 31-1 Illustrate the major steps of hemostasis and the coagulation cascade.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

16) A client is prescribed a fibrinolytic agent. Which phrase should the nurse use to describe the purpose of fibrinolysis?

1. Stop blood flow
2. Remove a blood clot
3. Produce enzymes
4. Increase blood flow

Answer: 2

Explanation:

1. Fibrin stops blood flow.
2. Fibrinolysis is the removal of a clot in order to release plasminogen.
3. Hemostasis increases enzymes.
4. Fibrinolysis is part of the clotting cascade, which does not include increasing blood flow.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 31-7 Describe the indications and adverse effects for fibrinolytics.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

17) The nurse is preparing teaching for a client prescribed an anticoagulant. Which phrase should

the nurse use to describe the primary action of this medication?

1. Increase the number of platelets
2. Prevent the formation of blood clots
3. Decrease the prothrombin time
4. Dissolve blood clots

Answer: 2

Explanation:

1. Anticoagulants do not increase the number of platelets.
2. Anticoagulants decrease the formation of new clots.
3. Anticoagulants do not decrease the prothrombin time.
4. Thrombolytics are used to dissolve clots.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

18) A client is receiving warfarin (Coumadin). Which laboratory test should the nurse expect to monitor in this client?

1. Complete blood count (CBC)
2. Platelet count
3. Activated partial thromboplastin time (aPTT)
4. International normalized ratio (INR)

Answer: 4

Explanation:

1. A complete blood count is not necessary to evaluate the effectiveness of the warfarin therapy.
2. Obtaining a platelet count is not necessary to evaluate the effectiveness of the warfarin therapy.
3. An aPTT is the laboratory test used to measure the effectiveness of heparin therapy.
4. The INR is the most effective test to measure the effectiveness of warfarin therapy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

19) A client is receiving a heparin infusion. Which laboratory test should the nurse monitor to determine the effectiveness of the medication?

1. Activated partial thromboplastin time (aPTT)
2. Serum heparin levels
3. Complete blood count (CBC)
4. Sedimentation rate

Answer: 1

Explanation:

1. An aPTT is used to help identify the correct dosage of heparin therapy for the client.
2. Serum heparin levels are not used to identify a correct dosage of heparin therapy for a client.
3. A CBC is not used to identify the correct dosage of heparin therapy for a client.
4. A sedimentation rate is not used to identify the correct dosage of heparin therapy for a client.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.B.1 Demonstrate effective use of technology and standardized practices that support safety and quality. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning  
Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.  
MNL Learning Outcome: Examine drugs used for coagulation disorders.

20) A client is prescribed an anticoagulant. Which situation should the client be instructed to avoid?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Citrus fruits
2. Alcohol intake
3. Contact sports
4. Prolonged sitting
5. Hard-bristle toothbrush

Answer: 2, 3, 4, 5

Explanation:

1. Citrus fruits are not contraindicated with the use of anticoagulants.
2. Alcohol should be limited or eliminated for a client prescribed anticoagulant therapy.
3. The client on an anticoagulant is at risk of bleeding and should avoid contact sports.
4. Prolonged sitting places the client at risk for the formation of thrombi. The client should be instructed to ambulate periodically.
5. The client should be instructed to use a soft-bristle toothbrush to avoid causing trauma and bleeding to the gums.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

21) The nurse is preparing teaching on thrombolytics. Which information should the nurse include?

1. Convert plasmin to plasminogen.
2. Prevent the liver from making fibrin.
3. Prevent thrombus formation.
4. Digest and remove preexisting clots.

Answer: 4

Explanation:

1. Thrombolytics do not convert plasmin to plasminogen.
2. Thrombolytics do not prevent the liver from making fibrin.
3. Anticoagulants, not thrombolytics, prevent the formation of a clot.
4. Thrombolytics digest and remove preexisting clots.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 31-7 Describe the indications and adverse effects for fibrinolytics.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

22) A client is prescribed an anticoagulant. Which statement should the nurse use to describe the mechanism of action of this medication?

1. Alteration of plasma membrane and platelets
2. Conversion of plasminogen to plasmin
3. Prevention of fibrin from dissolving
4. Inhibition of thrombi formation.

Answer: 4

Explanation:

1. Antiplatelet drugs alter plasma and platelet aggregation.
2. Thrombolytics convert plasminogen to plasmin.
3. Hemostats prevent fibrin from dissolving.
4. Anticoagulants are used to prolong bleeding time and thereby prevent thrombi from forming or enlarging.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

23) A client is prescribed warfarin (Coumadin). For which adverse effect should the nurse instruct the client to monitor when taking this medication?

1. Bleeding
2. Pain
3. Headache
4. Rash

Answer: 1

Explanation:

1. Clients receiving warfarin are at risk for bleeding.
2. Pain may occur with the use of some antiplatelet drugs.
3. Headaches are not commonly associated with the use of warfarin.
4. A rash is not commonly associated with the use of warfarin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

24) A client is diagnosed with an overdose of warfarin (Coumadin). Which medication should the nurse anticipate providing to the client?

1. Aspirin
2. Heparin
3. Vitamin K
4. Protamine sulfate

Answer: 3

Explanation:

1. Aspirin is an antiplatelet and will contribute to increased bleeding.
2. Heparin is not administered to clients experiencing a warfarin overdose.
3. Vitamin K is used to treat a client experiencing a warfarin overdose. Vitamin K helps reverse the anticoagulant effects of warfarin.
4. Protamine sulfate is the antidote for heparin overdose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 31-5 Compare and contrast the different types of anticoagulants.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

25) A client is prescribed warfarin (Coumadin). Which statements should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Inform your dentist you are taking warfarin prior to any procedures."
2. "Report to the lab for testing of activated partial thromboplastin time."
3. "Avoid strenuous activities."
4. "Place ice at the injection site if stinging or burning occurs."
5. "Take nonsteroidal anti-inflammatories for minor pain relief."

Answer: 1, 3

Explanation:

1. Warfarin increases the risk of bleeding from dental procedures.
2. An activated partial thromboplastin time is not used to monitor warfarin.
3. Strenuous or risky activities place the client at risk for injury and bleeding.
4. Warfarin is not administered by injection.
5. Nonsteroidal anti-inflammatory drugs can cause bleeding if taken concurrently with warfarin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 31-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for coagulation disorders.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

26) A client is prescribed to take heparin at home. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Self-administration of subcutaneous injections
2. Symptoms of deep vein thrombosis
3. Required laboratory tests
4. Signs of abnormal bleeding
5. Scheduled administration times with meals

Answer: 1, 2, 3, 4

Explanation:

1. Clients should be taught how to self-administer their subcutaneous injections.
2. Clients should be informed of symptoms associated with deep vein thrombosis.
3. Clients should be informed of the periodic laboratory monitoring.
4. Clients should be informed of signs of abnormal or excessive bleeding.
5. Heparin is generally administered once a day and is not associated with mealtimes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 31-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for coagulation disorders.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

27) A client has a thromboembolic disorder. Which classification of medications should the nurse anticipate being prescribed for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hemostatics
2. Thrombolytics
3. Anticoagulants
4. Antiplatelet agents
5. Clotting factor concentrates

Answer: 3, 4

Explanation:

1. Hemostatic drugs are given to inhibit fibrin destruction, thereby promoting clot formation.
2. Thrombolytic drugs are given to remove existing clots by dissolving them.
3. Anticoagulants inhibit specific clotting factors, thereby preventing clot formation.
4. Antiplatelet agents inhibit the action of platelets, thereby preventing clot formation.
5. Clotting factor concentrates replace missing clotting factors, thereby promoting clot formation.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-4 Identify the primary mechanisms by which coagulation modifier drugs act.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

28) A client is prescribed clopidogrel (Plavix). Which mechanism of action should the nurse recall about this medication?

1. Decreases platelet production
2. Prevents platelets from adhering to the injured tissue
3. Stimulates platelet production
4. Prevents the platelets from sticking together

Answer: 4

Explanation:

1. Clopidogrel does not decrease platelet production.
2. Clopidogrel does not prevent platelets from adhering to injured tissue.
3. Clopidogrel does not stimulate platelet production.
4. Clopidogrel is an antiplatelet prescription used to prevent platelet formation.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-4 Identify the primary mechanisms by which coagulation modifier drugs act.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

29) A client has overdosed on clopidogrel (Plavix). Which medication should the nurse anticipate being prescribed for this client?

1. Whole blood transfusion
2. Platelet transfusion
3. Vitamin K
4. Protamine sulfate

Answer: 2

Explanation:

1. A whole blood transfusion is not prescribed for a client that has overdosed on clopidogrel.
2. A platelet transfusion may be necessary to treat a client that has overdosed on clopidogrel to prevent hemorrhage.
3. Administration of vitamin K is the antidote for a client that has overdosed on warfarin.
4. Protamine sulfate is the antidote for a client that has overdosed on heparin.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 31-10 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for coagulation disorders.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

30) The nurse is preparing teaching for a client prescribed clopidogrel (Plavix) after a myocardial infarction and stent placement. Which statement should the nurse use to explain the action of this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Clopidogrel will dissolve any clots that might form in your stent."
2. "Clopidogrel will make the platelets in your blood less sticky."
3. "Clopidogrel will change the way your platelets work."
4. "Clopidogrel decreases your blood's ability to clot."
5. "Clopidogrel works just like the heparin you were prescribed in the hospital."

Answer: 2, 3, 4

Explanation:

1. Clopidogrel does not dissolve clots.
2. Clopidogrel is an adenosine diphosphate receptor blocker that renders platelets unable to aggregate, making them less "sticky."
3. Clopidogrel causes irreversible changes in platelet plasma membranes.
4. Clopidogrel does decrease the blood's ability to clot.
5. The mechanisms of action of clopidogrel and heparin are not alike.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 31-6 Compare and contrast the different types of antiplatelet drugs.

MNL Learning Outcome: Examine drugs used for coagulation disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 32 Drugs for Hematopoietic Disorders**

1) A client asks how epoetin alfa (Epoen) will help treat anemia. Which response should the nurse make to the client?

1. "This medication prevents the destruction of red blood cells."
2. "The medication stimulates your body to make red blood cells."
3. "This medication contains red blood cells."
4. "This medication increases the iron-binding capacity of red blood cells."

Answer: 2

Explanation:

1. Epoetin alfa does not prevent the destruction of red blood cells (RBCs).
2. Epoetin alfa stimulates RBC production.
3. Epoetin alfa does not contain RBCs.
4. Epoetin alfa does not increase the iron-binding capacity of the RBCs.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

2) The nurse reviews red blood cell (RBC) formation with a new graduate. Which statement made by the graduate nurse indicates teaching was effective?

1. "Red blood cell formation is regulated through chemicals called colony-stimulating factors."
2. "Red blood cell formation is regulated through messages from the hormone secretin, which is located in the kidney."
3. "Red blood cell formation is regulated through specific liver enzymes and a process called hemochromatosis."
4. "Red blood cell formation is regulated through messages from the hormone erythropoietin."

Answer: 4

Explanation:

1. Colony-stimulating factors affect white blood cell production.
2. Secretin stimulates the pancreas to release a fluid that neutralizes stomach acid and aids in digestion and is not involved with RBC formation.
3. Hemochromatosis refers to excess iron accumulation in the body, not to RBC formation.
4. Regulation of hematopoiesis occurs through messages from hormones such as erythropoietin.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 32-1 Describe the process of hematopoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

3) A client asks how epoetin alfa (Procrit) is related to their chemotherapy. Which response should the nurse make?

1. "This medication is administered to enhance the effectiveness of the chemotherapy."
2. "This medication helps to counteract the nausea and vomiting caused by chemotherapy."
3. "This medication will stimulate the immune system to help kill the cancer cells."
4. "This medication will help prevent anemia that can be caused by your chemotherapy."

Answer: 4

Explanation:

1. Epoetin alfa does not enhance the effectiveness of chemotherapy.
2. The drug does not counteract nausea and vomiting.
3. Epoetin alfa does not stimulate the immune system.
4. The medication is given to clients undergoing cancer chemotherapy to counteract the anemia caused by antineoplastic agents.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

4) The nurse is reviewing the different colony-stimulating factors (CSFs). Which statement describes how the names for these medications are determined?

1. Named according to the interleukins they stimulate
2. Named according to the type of blood cells they stimulate
3. Named according to the type of neurotransmitters that are stimulated
4. Named according to the type of hormones they stimulate

Answer: 2

Explanation:

1. CSFs are not named according to the interleukins they stimulate.
2. They are named according to the types of blood cells that they stimulate.
3. CSFs do not stimulate neurotransmitters.
4. They do not stimulate hormones.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-3 Identify indications and adverse effects for colony-stimulating factors.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

5) A client is prescribed filgrastim (Granix). Which outcome should the nurse anticipate occurring in the client?

1. Increases neutrophil production
2. Increases the production of basophils
3. Enhances cytotoxic function of the neutrophil
4. Enhances phagocytic activity of the neutrophil

Answer: 1

Explanation:

1. Filgrastim increases the neutrophil production in the bone marrow.
2. Filgrastim does not increase the production of basophils.
3. Filgrastim enhances the cytotoxic function of the neutrophil.
4. Filgrastim enhances phagocytic activity of the neutrophil.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Parenteral and Pharmacological Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 32-3 Identify indications and adverse effects for colony-stimulating factors.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

6) A client receiving cyanocobalamin (Nascobal) with a history of a gastrectomy tells the nurse that they stopped taking the medication months ago. Which assessment findings should the nurse anticipate?

1. Memory loss, numbness in the limbs, and depression
2. Gradual decrease in red blood cell counts
3. Jaundice and tarry stools
4. Low hemoglobin and hematocrit counts

Answer: 1

Explanation:

1. Cyanocobalamin is a purified form of vitamin B<sub>12</sub> that is indicated for clients with vitamin B<sub>12</sub> deficiency anemia. The most common cause of vitamin B<sub>12</sub> deficiency (pernicious anemia) is the absence of intrinsic factor, a protein secreted by stomach cells. This protein is required for vitamin B<sub>12</sub> to be absorbed from the intestine. Symptoms of pernicious anemia involve the nervous system and include memory loss, confusion, tingling or numbness in the limbs, and mood disturbances.
2. A decrease in red blood cells is not associated with pernicious anemia.
3. Jaundice and tarry stools are not symptoms of pernicious anemia.
4. Low hemoglobin and hematocrit counts do not occur with pernicious anemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-5 Describe the classification and general symptoms of anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

7) A client with chronic alcoholism asks why folic acid is prescribed. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The alcohol decreases your folic acid level."
2. "The alcohol interferes with folate metabolism in the liver."
3. "The folic acid will improve your vitamin B12 deficiency."
4. "Your dietary intake of folic acid is decreased when you drink alcohol."
5. "The folic acid can help reverse some of the liver damage that has occurred from the alcohol abuse."

Answer: 2, 4

Explanation:

1. The alcohol does not directly decrease the level of folic acid.
2. Alcohol interferes with folate metabolism in the liver.
3. Folic acid and vitamin B12 are two different deficiencies.
4. Insufficient folic acid can manifest itself as anemia. This is often observed in chronic alcoholism, since alcoholics consume alcohol instead of eating nutritious foods.
5. Folic acid cannot reverse liver damage that has been caused by alcoholism.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-6 Identify medications used to treat vitamin B12 and folic acid deficiencies.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

8) The nurse instructs a client with iron deficiency anemia. Which client statement indicates further teaching is required?

1. "Most iron in our bodies is stored on hemoglobin in the red blood cell."
2. "Transferrin is a protein that transports iron to places in our bodies where it is needed."
3. "We need extra iron because when the red blood cells die, all their iron is excreted from the body."
4. "The most common cause of nutritional anemia is iron deficiency."

Answer: 3

Explanation:

1. Most iron in our bodies is stored on hemoglobin in the red blood cell.
2. Transferrin is a protein that transports iron to places in our bodies where it is needed.
3. After erythrocytes die, nearly all of the iron in their hemoglobin is incorporated into transferrin and recycled for later use.
4. The most common cause of nutritional anemia is iron deficiency.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 32-7 Describe the types of iron compounds used to treat anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

9) A client is prescribed epoetin alfa (Epogen). Which assessment should the nurse make a priority?

1. Blood pressure
2. Temperature
3. Oxygen saturation
4. Apical pulse

Answer: 1

Explanation:

1. The most serious adverse effect of epoetin alfa (Epogen) is hypertension, which can raise blood pressure to dangerous levels; it occurs in as many as 30% of clients receiving the medication.
2. There is no indication to assess the client's temperature.
3. There is no indication to assess the client's oxygen saturation.
4. There is no indication to take an apical pulse.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

10) A client is prescribed sargramostim (Leukine). Which action should the nurse anticipate being included in the client's treatment plan?

1. Electrocardiogram monitoring
2. Insertion of indwelling urinary catheter
3. Administration of oxygen
4. Administration of an antiemetic

Answer: 1

Explanation:

1. Sargramostim (Leukine) may cause abnormal ST-segment depression.
2. The insertion of an indwelling urinary catheter is not necessary.
3. The administration of oxygen is not necessary.
4. The administration of an antiemetic is not necessary.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 32-3 Identify indications and adverse effects for colony-stimulating factors.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

11) A pregnant client prescribed cyanocobalamin (Nascobal) asks if the medication will hurt the

baby. Which response should the nurse make to the client?

1. "This medication is safe if taken in an oral form."
2. "This medication is safe during pregnancy."
3. "The medication is safe in the third trimester of pregnancy."
4. "The medication is safe when administered as an injection."

Answer: 2

Explanation:

1. The oral formulation of cyanocobalamin does not cause maternal or fetal complications during pregnancy.
2. Cyanocobalamin in the oral form is safe during pregnancy.
3. There is no evidence to support that oral cyanocobalamin is teratogenic during the first or second trimesters.
4. Cyanocobalamin in the oral form is safe during pregnancy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-6 Identify medications used to treat vitamin B12 and folic acid deficiencies.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

12) A client receiving ferrous sulfate (Feosol) reports experiencing constipation. Which intervention should the nurse recommend?

1. Laxatives
2. Increase fluids and high fiber foods in the diet
3. Self-administer Fleet® enemas
4. Increase exercise

Answer: 2

Explanation:

1. The nurse should consult with the healthcare provider prior to instructing the client to take laxatives.
2. Increasing fluids and high fiber foods in the diet is a nonpharmacological intervention that should be implemented first.
3. The nurse should consult with the healthcare provider prior to instructing the client to self-administer an enema.
4. Increasing exercise will help relieve constipation but is not as effective as increasing fluids and eating a high-fiber diet.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-7 Describe the types of iron compounds used to treat anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

13) A client is prescribed a medication to treat thrombocytopenia. Which client statement indicates that teaching about the medication was effective?

1. "This medication will help my chemotherapy work better."
2. "This medication will help increase my platelet count."
3. "This medication will help me regain the weight I have lost."
4. "This medication will help increase my red blood cell count."

Answer: 2

Explanation:

1. Platelet enhancers do not enhance the effectiveness of chemotherapy.
2. Platelet enhancers are used to stimulate the production of platelets in clients who are at risk for thrombocytopenia caused by cancer chemotherapy.
3. Platelet enhancers do not promote weight gain.
4. Platelet enhancers do not increase red blood cell count.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 32-4 Differentiate among first-line and second-line medications used to enhance platelet production.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

14) The nurse is reviewing the medical history for a client prescribed romiplostim (Nplate). Which condition should the nurse be concerned about?

1. Liver disease
2. Asthma
3. Diabetes mellitus
4. Renal disease

Answer: 1

Explanation:

1. This drug must be carefully monitored because it can cause hepatotoxicity.
2. Asthma is not the most concerning medical condition.
3. Diabetes mellitus is not the most concerning medical condition.
4. Renal disease is not the most concerning medical condition.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 32-4 Differentiate among first-line and second-line medications used to enhance platelet production.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

15) The nurse is reviewing the physiology of hematopoiesis. Which physiological process contributes to the regulation of hematopoiesis?

1. White bone marrow
2. Hematopoietic stem cells
3. Hormones
4. Essential vitamins and nutrients

Answer: 3

Explanation:

1. Hematopoiesis occurs primarily in red bone marrow.
2. The process of hematopoiesis begins with a stem cell.
3. Hematopoiesis is regulated by a number of hormones and growth factors.
4. Hematopoiesis occurs primarily in red bone marrow and requires B vitamins, vitamin C, copper, iron, and other nutrients.

Page Ref: 442

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 32-1 Describe the process of hematopoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

16) A client asks if breastfeeding an infant increases the risk for a B<sub>12</sub> deficiency due to client's

vegetarian dietary preference. Which response should the nurse make?

1. "Vitamin B12 is not secreted in the breast milk."
2. "The baby is unable to store adequate amounts of vitamin B12."
3. "The baby's digestive system is unable to absorb sufficient amounts of vitamin B12."
4. "The baby is at risk if exclusively breastfed for 12 months."

Answer: 1

Explanation:

1. Vitamin B12 is secreted in the breast milk.
2. The infant can store adequate amounts of vitamin B12.
3. The infant is able to absorb sufficient amounts of vitamin B12.
4. If a client consumes no animal products, exclusively breastfed infants can develop vitamin B12 deficiency within 12 months.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-6 Identify medications used to treat vitamin B12 and folic acid deficiencies.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

17) A client is receiving an erythropoiesis-stimulating agent. For which potential condition should the nurse monitor the client?

1. Thromboembolism
2. Transient ischemic attack
3. Myocardial infarction
4. Cerebral vascular accident

Answer: 1

Explanation:

1. Clients are at greater risk for thrombotic disease, which can result in a transient ischemic attack, myocardial infarction, and cerebral vascular accident.
2. A transient ischemic attack can occur as a result of thromboembolic disease.
3. A myocardial infarction can occur as a result of thromboembolic disease.
4. A cerebral vascular accident can occur as a result of thromboembolic disease.

Page Ref: 444

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

18) A client is prescribed ferrous sulfate (Feosol). Which information should the nurse include when teaching the client about this medication?

1. Take this medication with milk.
2. Take this medication before bedtime.
3. Take this medication with orange juice.
4. Take this medication with meals.

Answer: 3

Explanation:

1. Food, especially dairy products, will inhibit absorption of ferrous sulfate.
2. The client should not take tablets or capsules 1 hour before bedtime.
3. Foods high in vitamin C such as orange juice can increase the absorption of iron.
4. Food, especially dairy products, will inhibit absorption of ferrous sulfate.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process:

Implementation; Teaching/Learning

Learning Outcome: 32-7 Describe the types of iron compounds used to treat anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

19) The nurse is reviewing the different types of anemias. In which way should the nurse expect

anemias to be classified?

1. Based on the shape of erythrocytes
2. Based on the size and color of the erythrocytes
3. Based on the number of erythrocytes present
4. Based on the amount of oxygen carried by the erythrocytes

Answer: 2

Explanation:

1. Anemias are not classified by the shape of the erythrocytes.
2. Anemias are classified based on the description of the size and color of the erythrocytes.
3. Anemias are not classified based on the number of erythrocytes present.
4. Hemoglobin is the protein in the red blood cells that carry oxygen.

Page Ref: 447

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-5 Describe the classification and general symptoms of anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

20) The nurse notes that a client's erythrocytes are microcytic-hypochromic. Which anemia should the nurse associate with the morphology?

1. Pernicious anemia
2. Iron deficiency anemia
3. Sickle cell anemia
4. Hemolytic anemia

Answer: 2

Explanation:

1. Macrocytic—normochromic erythrocytes are associated with pernicious and folate-deficiency anemia.
2. Microcytic—hypochromic erythrocytes are associated with iron deficiency anemia or thalassemia.
3. Normocytic—normochromic erythrocytes are associated with aplastic, hemorrhagic, sickle cell, and hemolytic anemia.
4. Normocytic—normochromic erythrocytes are associated with aplastic, hemorrhagic, sickle cell, and hemolytic anemia.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-5 Describe the classification and general symptoms of anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

21) A client asks why the healthcare provider has prescribed darbepoetin alfa (Aranesp) instead of

epoetin alpha (Epogen). Which response should the nurse make to the client?

1. "Darbepoetin alfa has less side effects."
2. "Darbepoetin alfa is more effective."
3. "Darbepoetin alfa has a longer duration of action."
4. "Darbepoetin alfa is less expensive."

Answer: 3

Explanation:

1. Darbepoetin alfa is closely related to epoetin alfa. It has the same side effects.
2. Darbepoetin alfa is closely related to epoetin alfa. It has the same effects.
3. Darbepoetin alfa is closely related to epoetin alfa. It has a longer duration of action that allows it to be administered once weekly or once every 2 weeks.
4. Darbepoetin alfa is not less expensive than epoetin alfa.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

22) A client has been receiving an erythropoiesis-stimulating factor. Which assessment finding indicates the treatment is successful?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The client's hemoglobin is increased.
2. The client reports less shortness of breath on exertion.
3. The client has not had an episode of epistaxis in over 3 weeks.
4. The client reports enjoying light exercise.
5. The client has not had a fever since treatment began.

Answer: 1, 2, 4

Explanation:

1. The purpose of this therapy is to increase red blood cells (RBCs), which would increase hemoglobin.
2. Since the client has more RBCs, more oxygen can be carried to tissues.
3. This drug supports RBC production, not platelet production.
4. Increase in activity level indicates treatment success.
5. This treatment supports RBC production, not white blood cell production.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 32-2 Identify indications and adverse effects for drugs that enhance erythropoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

23) A client receiving chemotherapy is prescribed filgrastim (Neupogen). At which time should the nurse provide the medication to the client?

1. Twenty-four hours prior to the chemotherapy
2. At the time of the chemotherapy infusion
3. Immediately following the chemotherapy
4. Immediately before the chemotherapy

Answer: 1

Explanation:

1. Neupogen should not be administered within 24 hours before or after chemotherapy.
2. Neupogen should not be administered at the time of the chemotherapy infusion.
3. Neupogen should not be administered immediately after chemotherapy.
4. Neupogen should not be administered before chemotherapy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 32-3 Identify indications and adverse effects for colony-stimulating factors.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

24) After reviewing a client's laboratory results, the nurse suspects a female client is experiencing iron deficiency anemia. Which question should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Have you had a significant dietary change in the last 6 months?"
2. "Do you handle chemicals in your new job?"
3. "Have your stools changed in appearance?"
4. "Have you been eating more carbohydrates than usual?"
5. "Are your menstrual periods heavier than normal for you?"

Answer: 1, 2, 3, 5

Explanation:

1. Dietary changes may significantly influence production of red blood cells.
2. Chemicals can cause red blood cell destruction.
3. Change to dark tarry stool, red stool, or much looser stool could indicate blood loss.
4. There is no connection between carbohydrate ingestion and anemia.
5. Heavy menstrual flow is a leading cause of blood loss anemia in women.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-5 Describe the classification and general symptoms of anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

25) A client is prescribed intramuscular ferrous sulfate. Which action should the nurse take when giving this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Give the injection in the deltoid muscle
2. Ask for the medication route to be changed to subcutaneous
3. Recall that iron is irritating to the tissues
4. Use the z-track method
5. Use a 16-gauge or larger needle

Answer: 3, 4

Explanation:

1. The injection should be given deeply in a larger muscle.
2. Iron should be given deep intramuscularly.
3. Iron is irritating to tissues.
4. Z-track injection reduces leakage into the tissues and is the preferred method of intramuscular injection of iron.
5. There is no indication to use a large-diameter needle for injection.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-7 Describe the types of iron compounds used to treat anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

26) A client is prescribed a colony-stimulating factor. Which effect should the nurse expect this medication to have on the client's body?

1. Stimulate platelet production
2. Stimulate white blood cell production
3. Stimulate red blood cell production
4. Stimulate stem cell production

Answer: 2

Explanation:

1. Thrombopoietin receptor agonists are a classification of medications used to stimulate platelet production.
2. Colony-stimulating factors stimulate white blood cell production.
3. Erythropoiesis-stimulating drugs stimulate the production of red blood cells.
4. Other classifications of medications are used to stimulate stem cell production.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-3 Identify indications and adverse effects for colony-stimulating factors.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

27) The nurse is reviewing the development of erythrocytes. Which structure should the nurse identify as the initial origin for these cells?

1. Megakaryocyte
2. Myeloid stem cell
3. Lymphoid stem cell
4. Colony-stimulating factors

Answer: 2

Explanation:

1. Platelets are formed from megakaryocytes.
2. Erythrocytes are formed from myeloid stem cells.
3. B and T lymphocytes are formed from lymphoid stem cells.
4. Colony-stimulating factors are responsible for the end formation of granular leukocytes and macrophages.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 32-1 Describe the process of hematopoiesis.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

28) The nurse is preparing to teach a client how to self-administer an erythropoiesis-stimulating drug. Which instruction should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Shake the vial to mix the contents before use."
2. "Draw up what is needed and discard the rest of the vial."
3. "Place your stock of medication in your refrigerator."
4. "Warm the vial in your hand a few minutes before drawing up the medication."
5. "Give the medication deeply into a muscle."

Answer: 2, 3, 4

Explanation:

1. The vial should not be shaken as this may deactivate the medication.
2. Vials are single use, and any medication remaining should be discarded.
3. Medication should be kept in the refrigerator.
4. The vial should be warmed before use.
5. The medication should be injected into the subcutaneous tissue.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 32-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for hematologic disorders.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

29) A client with pernicious anemia is prescribed vitamin B<sub>12</sub>. In which way should the nurse expect to provide the medication?

1. Intravenous
2. Oral
3. Intramuscular
4. Nasal inhalation

Answer: 3

Explanation:

1. Vitamin B<sub>12</sub> can be given intravenously; however, this is not the most prescribed route.
2. Vitamin B<sub>12</sub> can be taken orally; however, this is not the most prescribed route.
3. Vitamin B<sub>12</sub> must be given intramuscularly in cases of pernicious anemia until therapeutic levels are reached.
4. Vitamin B<sub>12</sub> may be prescribed by nasal spray when therapeutic levels are reached.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 32-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for hematologic disorders.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

30) A client is diagnosed with acute iron intoxication. Which medication should the nurse anticipate providing to the client?

1. Folic acid
2. Deferoxamine (Desferal)
3. Blood transfusion
4. Cyanocobalamin (Nascobal)

Answer: 2

Explanation:

1. Folic acid is a vitamin supplement and is not used to treat acute iron toxicity.
2. The antidote for iron overdose is deferoxamine (Desferal).
3. A blood transfusion is not used to treat acute iron intoxication.
4. Cyanocobalamin (Nascobal) is a vitamin supplement and is not used to treat acute iron intoxication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 32-7 Describe the types of iron compounds used to treat anemia.

MNL Learning Outcome: Examine drugs used for hematopoietic disorders.

*Pharmacology for Nurses, 7e (Adams)*  
**Chapter 33 Drugs for Inflammation and Fever**

1) A client is prescribed a nonsteroidal anti-inflammatory drug (NSAID). Which statement should the nurse include when teaching the client about this medication?

1. "Constipation is common; include roughage in your diet."
2. "Dizziness may occur due to a decrease in blood pressure."
3. "Take your medication with food."
4. "The prescription may exacerbate your asthma."

Answer: 3

Explanation:

1. Constipation is not associated with the use of NSAIDs.
2. NSAIDs have a black box warning that states that hypertension may worsen.
3. Taking the medication with food will decrease gastrointestinal irritation.
4. Clients with asthma or allergies to aspirin are more likely to exhibit hypersensitivity to ibuprofen.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

2) A client asks if liquid acetaminophen (Tylenol) used for an older child can be used for a 4-month-old baby with a fever. Which response should the nurse make?

1. "Infants should not be given acetaminophen (Tylenol) because it damages the liver."
2. "You can use the same medication, just use half the recommended dosage."
3. "You can use the same prescription for both children."
4. "Infant drops should be used because they are different from liquid medicine."

Answer: 4

Explanation:

1. Acetaminophen (Tylenol) is the preferred antipyretic drug for infants and children.
2. The recommended dose should be given.
3. The prescription has varying concentrations so it is not safe to administer the same prescription a child takes to an infant.
4. Infant drops should be used because they have a different concentration than the children's formula.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

3) A client will be taking ibuprofen (Advil) for long-term therapy. Which laboratory test should the nurse monitor in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Electrolytes
2. Hemoglobin and hematocrit
3. Bleeding times
4. Liver function tests
5. Serum amylase

Answer: 2, 3, 4

Explanation:

1. There is no specific reason to monitor the clients' electrolytes.
2. Ibuprofen may result in a decrease in hemoglobin and hematocrit. Baseline levels should be documented.
3. Ibuprofen may increase bleeding times. Baseline values should be documented.
4. Aspartate aminotransferase and alanine aminotransferase may be increased, so it is important to document baseline levels.
5. It is not necessary to draw baseline serum amylase levels.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

4) A client has a sports-related injury to the leg. Which sign of inflammation should the nurse expect to assess?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Swelling
2. Pain
3. Warmth
4. Pallor
5. Pitting edema

Answer: 1, 2, 3

Explanation:

1. Swelling is a sign of inflammation.
2. Pain is a sign of inflammation.
3. Warmth is a sign of inflammation.
4. Pallor is not a sign of inflammation; redness is.
5. Pitting edema is not a sign of inflammation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-1 Explain the biological functions, signs, and symptoms of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

5) A client with inflammation from an injury asks how long it will take to respond to treatment. Which response should the nurse make to the client?

1. "With proper care, it will take about a month for symptoms to resolve."
2. "It will depend on your response to the medication."
3. "It will take about a week and a half for the symptoms to resolve."
4. "The inflammatory process is too complex to predict a time frame for healing."

Answer: 3

Explanation:

1. A month is longer than it takes for acute symptoms to resolve.
2. Medication will relieve some symptoms, but the time frame for repair to begin is the same.
3. During acute inflammation, 8 to 10 days are normally needed for the symptoms to resolve and repair to begin.
4. The inflammatory process is complex, but the time frame is still 8 to 10 days.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 33-2 Identify chemical mediators of inflammation and basic steps in the acute inflammatory response.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

6) The nurse instructs a client about the action of histamine. Which client statement indicates that teaching was effective?

1. "Histamine is inhibited by nonsteroidal anti-inflammatory drugs."
2. "Histamine dilates the vessels in the nose, so it is congested and stuffy."
3. "Histamine constricts vessels, causing capillaries to become more permeable."
4. "Histamine is primarily stored in phagocyte cells in the skin."

Answer: 2

Explanation:

1. Nonsteroidal anti-inflammatory drugs inhibit the synthesis of prostaglandins and do not affect histamine.
2. Histamine dilates blood vessels, causing capillaries to become more permeable. The affected area may become congested with blood.
3. Histamine dilates, not constricts, vessels, causing capillaries to become more permeable.
4. Histamine is primarily stored in mast cells, not phagocyte cells.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 33-2 Identify chemical mediators of inflammation and basic steps in the acute inflammatory response.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

7) A client wants to take prednisone indefinitely as treatment for an inflammatory condition. Which response should the nurse make to the client?

1. "This is not recommended due to the serious side effects."
2. "The best treatment for your condition is to alternate medications."
3. "The medication will lose its effect after your body builds up a tolerance to it."
4. "When you experience remission, you will not need the medication."

Answer: 1

Explanation:

1. Systemic glucocorticoids are reserved for the short-term treatment of severe disease because of potentially serious adverse effects.
2. Medications are alternated due to the serious effects of glucocorticoids.
3. The body does not build up a tolerance to systemic glucocorticoids.
4. There is no evidence that the client's illness is in remission.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 33-5 Explain the role of corticosteroids in the pharmacologic management of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

8) The nurse is caring for a client with a fever. Which outcome should the nurse expect when acetaminophen (Tylenol) is used for fever reduction?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Constricts peripheral blood vessels
2. Increases activity of the sweat glands
3. Dilates peripheral blood vessels
4. Acts directly at the level of the hypothalamus
5. Decreases tissue inflammation

Answer: 3, 4

Explanation:

1. Heat is conserved when the blood vessels are constricted.
2. Acetaminophen does not affect the activity of the sweat glands.
3. Acetaminophen reduces fever, which dilates peripheral blood vessels, enabling sweating and dissipation of heat.
4. Acetaminophen reduces fever by direct action at the level of the hypothalamus.
5. Acetaminophen does not decrease tissue inflammation.

Page Ref: 465

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 33-6 Explain the causes and pharmacologic management of fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

9) A client is prescribed ibuprofen for chronic pain. Which client statement indicates an understanding of the maximum daily amount of ibuprofen (Motrin)?

1. "I cannot take over 4000 mg/day."
2. "I cannot take over 3600 mg/day."
3. "I cannot take over 3200 mg/day."
4. "I cannot take over 3000 mg/day."

Answer: 3

Explanation:

1. The maximum amount of ibuprofen (Motrin) to be taken in 24 hours is 3200 mg, not 4000 mg.
2. The maximum amount of ibuprofen (Motrin) to be taken in 24 hours is 3200 mg, not 3600 mg.
3. The maximum amount of ibuprofen (Motrin) to be taken in 24 hours is 3200 mg.
4. The maximum amount of ibuprofen (Motrin) to be taken in 24 hours is 3200 mg, not 3000 mg.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

10) A child is prescribed acetaminophen (Tylenol) for a minor health problem. Which statement should the nurse include when teaching the parent about this medication?

1. "Acetaminophen (Tylenol) should be administered with a high-carbohydrate meal."
2. "Read the labels of all over-the-counter medications for the amount of acetaminophen (Tylenol)."
3. "Due to the lasting effects, acetaminophen (Tylenol) should only be given to children once a day."
4. "Baby aspirin can be substituted for acetaminophen (Tylenol)."

Answer: 2

Explanation:

1. There is no indication that Tylenol should be given with high-carbohydrate foods.
2. All medication labels should be evaluated for the amount of acetaminophen to avoid overdosing the child.
3. The duration of action of acetaminophen is 4-6 hours.
4. Aspirin is not recommended for children due to the possibility of contracting Reye syndrome.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

11) An older adult client is prescribed a nonsteroidal anti-inflammatory drug (NSAID). Which outcome should the nurse include in the plan of care for this client?

1. The client will refrain from taking other medications with the NSAID.
2. The client will avoid the use of caffeine while taking the medication.
3. The client will report any bleeding or bruising while taking the NSAID.
4. The client will report any mood changes while taking the drug.

Answer: 3

Explanation:

1. Older adults are often on several medications and refraining from taking them with NSAIDs is an unrealistic outcome.
2. There is no reason for avoiding use of caffeine while using the medication.
3. Older adults are at risk for increased bleeding with NSAID therapy.
4. Mood changes are not a side effect of this drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

12) The nurse is caring for a client taking prednisone. For which finding should the nurse notify the healthcare provider?

1. Unexplained fever
2. History of heart failure
3. Asthma
4. Arthritis

Answer: 1

Explanation:

1. Prednisone should not be used in a client with a suspected systemic infection. An unexplained fever is concerning and the healthcare provider should be notified immediately.
2. Prednisone is not contraindicated for a client with a history of heart failure.
3. Prednisone is a corticosteroid that can be used in the treatment of asthma.
4. Prednisone can be used in the treatment of arthritis.

Page Ref: 464

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-5 Explain the role of corticosteroids in the pharmacologic management of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

13) A client is prescribed acetaminophen (Tylenol) four times a day. For which additional current medication should the nurse consult the healthcare provider?

1. Heparin 5000 units subcutaneously every 8 hours
2. Warfarin (Coumadin) 2 mg orally every day
3. Penicillin G benzathine (Bicillin LA) 2.4 million units IM one time
4. Paroxetine (Paxil) 37.5 mg orally every day

Answer: 2

Explanation:

1. There is no contraindication to the use of heparin and acetaminophen.
2. Acetaminophen inhibits the metabolism of warfarin. Concomitant use of these two medications could result in a toxic accumulation of warfarin.
3. There is no contraindication to the use of penicillin G benzathine and acetaminophen.
4. There is no contraindication to the use of paroxetine and acetaminophen.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

14) A client is prescribed a salicylate. For which condition should the nurse monitor this client?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Neurotoxicity
2. Ototoxicity
3. Nephrotoxicity
4. Cardiotoxicity
5. Pulmonary toxicity

Answer: 2, 3

Explanation:

1. Salicylates are not associated with neurotoxicity.
2. Salicylates may be ototoxic. The client should be monitored for tinnitus, difficulty hearing, light-headedness, or difficulty with balance.
3. Urine output and periodic kidney functions should be evaluated because salicylates may be nephrotoxic during long-term or high-dose therapy.
4. Salicylates are not associated with cardiotoxicity.
5. Salicylates are not associated with pulmonary toxicity.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

15) A client seeks medical attention for an injury. Which finding should the nurse identify as a symptom of inflammation?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Redness
2. Warmth
3. Itching
4. Rash
5. Pain

Answer: 1, 2, 3, 5

Explanation:

1. Redness occurs from antigen reaction during inflammation.
2. Warmth occurs as a result of vasodilation during inflammation.
3. Itching occurs as a result of the histamine that is released.
4. A rash is not associated with inflammation.
5. Pain is associated with inflammation.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-1 Explain the biological functions, signs, and symptoms of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

16) The nurse is caring for a client with inflammation. Which laboratory test should the nurse identify as an early laboratory marker of inflammation?

1. Prostaglandins
2. Bradykinin
3. C-Reactive protein
4. Histamine

Answer: 3

Explanation:

1. Prostaglandins are present in most tissues and stored and released by mast cells; they increase capillary permeability and attract white blood cells to the site of the inflammation.
2. Bradykinin is present in an inactive form in plasma and mast cells and acts as a vasodilator.
3. C-reactive protein is found in the plasma and is an early marker of inflammation.
4. Histamine is stored and released by mast cells. Histamine causes vasodilation and smooth muscle constriction, tissue swelling, and itching.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-2 Identify chemical mediators of inflammation and basic steps in the acute inflammatory response.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

17) The nurse is caring for a client taking an anti-inflammatory medication. Which finding should the nurse identify as a common adverse effect of this medication?

1. Diarrhea
2. Palpitations
3. Heartburn
4. Hypotension

Answer: 3

Explanation:

1. Diarrhea is not a common adverse effect of an anti-inflammatory.
2. Palpitations are not a common adverse effect of an anti-inflammatory.
3. Heartburn and other gastrointestinal upset are common adverse effects of anti-inflammatory medications.
4. Hypotension is not a common adverse effect of an anti-inflammatory.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

18) A client is prescribed a glucocorticoid medication. For which adverse effect should the nurse monitor in this client?

1. Hypoglycemia
2. Hypotension
3. Bruising
4. Weight loss

Answer: 3

Explanation:

1. Hyperglycemia is associated with the use of glucocorticoids.
2. Hypertension can occur as a result of Cushing syndrome.
3. Long-term glucocorticoid use can result in susceptibility to bruising.
4. Weight gain is associated with the use of glucocorticoids.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-5 Explain the role of corticosteroids in the pharmacologic management of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

19) A client prescribed ibuprofen (Advil) asks how the medication works. Which response should the nurse make?

1. Acts directly on the hypothalamus
2. Inhibits prostaglandin synthesis
3. Blocks pain impulses sent to the brain
4. Decreases stimulation of sensory nerve fibers

Answer: 2

Explanation:

1. Acetaminophen (Tylenol) directly acts on the fever center of the hypothalamus and dilates peripheral blood vessels.
2. Anti-inflammatory drugs such as ibuprofen inhibit the synthesis of prostaglandins.
3. Ibuprofen does not block pain impulses that are sent to the brain.
4. Ibuprofen does not decrease stimulation of the sensory nerve fibers.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

20) A client is prescribed aspirin for inflammation. Which instructions should the nurse include when teaching the client about this medication?

1. Take the aspirin with a glass of milk.
2. Discontinue taking the aspirin if you experience stomach upset.
3. Take the aspirin with orange juice in the morning.
4. Take the aspirin on an empty stomach in the morning.

Answer: 1

Explanation:

1. Aspirin should be taken with milk or food to avoid gastrointestinal (GI) upset.
2. The client should contact their healthcare provider if they experience GI upset that cannot be resolved.
3. Orange juice is highly acidic and can increase the risk for GI distress.
4. Taking aspirin on an empty stomach can increase the risk of gastric acid production, further causing GI upset.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

21) A client is taking a salicylate for inflammation. Which symptom should the nurse instruct the client to report immediately to the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Edema
2. Drowsiness
3. Fatigue
4. Decreased urine output
5. Darkening of urine

Answer: 1, 4, 5

Explanation:

1. Salicylates may be nephrotoxic so the client should be instructed to immediately report edema.
2. Drowsiness is not associated with the use of salicylates.
3. Fatigue is not associated with the use of salicylates.
4. Salicylates may be nephrotoxic, so the client should be instructed to immediately report changes in the quantity of urine output.
5. Salicylates may be nephrotoxic so the client should be instructed to immediately report darkening of urine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

22) The nurse instructs a client about a nonsteroidal anti-inflammatory drug (NSAID). Which client statement indicates teaching was effective?

1. "I will make sure I increase my fluid intake."
2. "I can expect dark tarry stools."
3. "I can expect to have lightheadedness."
4. "I will cut back on my alcohol intake while taking this medication."

Answer: 1

Explanation:

1. NSAIDs can produce nephrotoxicity. The client should be instructed to increase their fluid intake to help clear the drug from their system.
2. Dark tarry stools are a symptom of gastrointestinal bleeding and should be reported immediately.
3. NSAIDs are ototoxic. Lightheadedness may be a symptom of ototoxicity and should be reported to the healthcare provider immediately.
4. Alcohol should be avoided or eliminated for a client prescribed an NSAID due to the risk of gastrointestinal bleeding.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

23) A client with severe inflammation of the knee prescribed a corticosteroid asks why an appointment at the clinic for a 10-day follow-up is needed. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Your prescribed treatment will be evaluated."
2. "The knee should be reexamined."
3. "Corticosteroids should only be taken for 1 to 3 weeks."
4. "Your medication may be changed to an anti-inflammatory drug."
5. "You may require additional treatment for several more weeks with a corticosteroid."

Answer: 1, 2, 3, 4

Explanation:

1. The client's prescribed treatment will be evaluated at the follow-up visit.
2. The client's knee should be reexamined to ensure no complications have occurred.
3. Corticosteroid therapy can have serious adverse effects if taken for extended periods of time.
4. The client should be switched to a nonsteroidal anti-inflammatory drug as soon as possible.
5. Corticosteroid therapy should be discontinued after 1 to 3 weeks.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 33-3 Outline general strategies for treating inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

24) A client is prescribed ibuprofen for a mild ankle sprain. Which information in the health history should cause the nurse concern?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hypertension
2. History of injury to the same ankle
3. Alcohol abuse
4. Allergy to aspirin
5. Recent history of a peptic ulcer

Answer: 1, 3, 4, 5

Explanation:

1. Ibuprofen should be used cautiously in a client with hypertension.
2. Treatment with ibuprofen for a client with previous injury to the same ankle is not concerning.
3. A history of alcohol abuse is of concern for the client prescribed ibuprofen. The client is at risk for bleeding if they are currently consuming alcohol and if there is any residual damage to the liver from alcohol abuse, which further increases the client's risk for bleeding.
4. Clients who have an allergy to aspirin are more likely to be hypersensitive to ibuprofen.
5. Ibuprofen increases the risk of serious gastrointestinal bleeding, especially in someone with a recent history of a peptic ulcer.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-4 Compare and contrast the actions and adverse effects of the different nonsteroidal anti-inflammatory drugs.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

25) A client is taking an anti-inflammatory drug. Which client statement indicates the treatment has been successful?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My fever went away yesterday."
2. "I've not been coughing up so much phlegm."
3. "The skin over my knee is only slightly red and hot to the touch."
4. "The pain in my shoulder is gone."
5. "My rash has not spread any further."

Answer: 1, 4

Explanation:

1. Fever reduction is a goal of treatment with an anti-inflammatory prescription.
2. Reduction of secretions is not a goal of treatment with anti-inflammatory drugs.
3. Redness and heat are symptoms of inflammation, indicating the therapy has not been successful.
4. Pain is a sign of inflammation. Reduction of pain indicates that the anti-inflammatory drug has been successful.
5. The goal of anti-inflammatory prescriptions is to resolve the rash. A rash that has not been resolved indicates the therapy has not been successful.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

26) A client asks why a wound has not healed and has gotten worse. Which information should the nurse include when explaining inflammation to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. When cells are damaged, nearby vessels get bigger.
2. The vessels in the area allow fluids to escape.
3. Inflammation produces pus.
4. Inflammation causes bleeding and inability to clot.
5. Inflammation causes pain.

Answer: 1, 2, 3, 5

Explanation:

1. Histamine and other chemical mediators are released and result in vasodilation.
2. Vessels become more permeable.
3. Pus develops from cellular infiltration and death of white cells.
4. Clots form in vessels involved in inflammation.
5. Inflammation damages tissues, stimulating nerve endings and causing pain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-1 Explain the biological functions, signs, and symptoms of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

27) A client tells the nurse they have been taking aspirin to treat muscle pain. Based on this statement, which finding in the client's history should cause the nurse concern?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Myocardial infarction at age 61
2. *Helicobacter pylori* infection treatment last month
3. No influenza vaccine in last 2 years
4. Mild hypertension
5. History of migraine headaches

Answer: 1, 2

Explanation:

1. Clients over age 60 are at higher risk of aspirin-induced gastrointestinal bleeding.
2. Clients with *H. pylori* infection are at higher risk of aspirin-induced gastrointestinal bleeding.
3. There is no association between lack of influenza vaccine and use of aspirin.
4. There is no association between mild hypertension and use of aspirin.
5. There is no association between migraine headache and use of aspirin.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-7 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for inflammation or fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

28) A client has a fever of unknown origin. Which medication should the nurse consider as causing the fever?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Paroxetine (Paxil)
2. Chlorpromazine (Thorazine)
3. Penicillin G
4. Metformin (Glucophage)
5. Furosemide (Lasix)

Answer: 1, 2, 3

Explanation:

1. Selective serotonin reuptake inhibitors may result in high fever.
2. Conventional antipsychotic drugs can result in neuroleptic malignant syndrome.
3. Penicillin G may be seen as a foreign body and produce a fever.
4. Metformin does not directly cause fever.
5. Furosemide does not cause fever.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 33-6 Explain the causes and pharmacologic management of fever.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

29) A client is prescribed a 10-day course of a corticosteroid. Which education should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Make certain you do weight-bearing exercises at least three times each week."
2. "Weigh yourself every day."
3. "Let us know if you develop a fever."
4. "Monitor the color of your urine."
5. "If you feel jittery or anxious, discontinue the medication."

Answer: 1, 2, 3

Explanation:

1. Corticosteroids may affect bone density. Weight-bearing exercises help to prevent this effect.
2. The drug may result in fluid retention. Daily weights help to monitor this effect.
3. Corticosteroids can result in immune depression.
4. Urine color is not affected.
5. The client should not abruptly discontinue the prescription.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-5 Explain the role of corticosteroids in the pharmacologic management of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

30) A client is prescribed a corticosteroid for inflammation. Which information should the nurse explain that describes the mechanism of action of corticosteroids on the inflammatory response?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Suppress the release of histamine
2. Inhibit certain functions of phagocytes
3. Inhibit the release of C-reactive protein
4. Inhibit the biosynthesis of prostaglandins
5. Inhibit certain functions of lymphocytes

Answer: 1, 2, 4, 5

Explanation:

1. Corticosteroids suppress the release of histamine.
2. Corticosteroids inhibit certain functions of phagocytes.
3. Corticosteroids do not inhibit the release of C-reactive protein.
4. Corticosteroids inhibit biosynthesis of prostaglandins.
5. Corticosteroids inhibit certain functions of lymphocytes

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 33-5 Explain the role of corticosteroids in the pharmacologic management of inflammation.

MNL Learning Outcome: Examine drugs used for inflammation and fever.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 34 Drugs for Immune System Modulation**

1) A parent reports that their child receiving leukemia chemotherapy has been exposed to varicella (chickenpox). Which instruction should the nurse provide to the parent?

1. "If the child develops chickenpox, come into the clinic for an injection of varicella immune globulin."
2. "Bring the child into the clinic as soon as possible to receive an injection of varicella immune globulin."
3. "Bring the child to the clinic immediately to receive a vaccination for chickenpox."
4. "Keep the child away from other children to avoid further exposure to varicella."

Answer: 2

Explanation:

1. Immune globulin is not administered after the disease develops.
2. Immune globulin must be given before the disease develops.
3. The child is immunosuppressed; administering a vaccination for chickenpox may result in developing the disease.
4. Keeping the child away from others will not prevent the disease from developing because the child has already been exposed to it.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 34-3 Identify five types of vaccines and distinguish between active and passive immunity.

MNL Learning Outcome: Examine drugs used for the immune system.

2) The nurse is preparing to administer a second dose of diphtheria-pertussis-tetanus (DPT) when the parent expresses concern that their child developed a red rash after the previous DPT immunization. Which action should the nurse take?

1. Administer only a pertussis-tetanus immunization.
2. Withhold this immunization and contact the healthcare provider.
3. Instruct the parent to give the child acetaminophen (Tylenol) if another rash develops.
4. Administer diphenhydramine (Benadryl) prior to the DPT immunization.

Answer: 2

Explanation:

1. Pertussis-tetanus is not an immunization.
2. This red rash is unexpected and could indicate a potential adverse reaction to the vaccine such as anaphylaxis; therefore, the nurse will withhold the immunization and contact the healthcare provider.
3. Administering acetaminophen does not address the problem of potential anaphylaxis.
4. Administering diphenhydramine does not address the problem of potential anaphylaxis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for immune conditions.

MNL Learning Outcome: Examine drugs used for the immune system.

3) The nurse instructs a new parent on infant immunization. Which statement made by the parent indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected* Select all that apply.

1. "The immunizations are more effective if they are given closer together."
2. "The baby might have a mild fever and be fussy for a few days."
3. "I will call the healthcare provider immediately if the baby develops a fever."
4. "I can give acetaminophen (Tylenol) if the baby has a mild fever."
5. "I should be concerned that a mild fever may indicate an allergic reaction has occurred."

Answer: 2, 4

Explanation:

1. The recommended immunization schedule should be followed. There is no benefit to administering immunizations closer together.
2. A mild fever is a typical reaction to immunizations.
3. The healthcare provider should be notified if the fever is high.
4. Acetaminophen (Tylenol) is indicated for relief of mild symptoms.
5. A mild fever does not indicate there is an allergic reaction to the immunization.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 34-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for immune conditions.

MNL Learning Outcome: Examine drugs used for the immune system.

4) A client receiving interferon alfa-2b (Intron-A) reports getting very sleepy and thirsty every time the medication is taken. Which assessment question should the nurse ask the client?

1. "Are you consuming at least eight glasses of water daily?"
2. "Are you including beverages with alcohol in your diet?"
3. "Have you had any flu symptoms lately?"
4. "How much time have you spent out in the sun?"

Answer: 2

Explanation:

1. There is no indication to drink eight glasses of water daily when taking immunostimulants.
2. Combining immunostimulants with ethanol can result in excessive drowsiness and dehydration.
3. While flulike symptoms are common with immunostimulants, this question does not address the client's concerns.
4. Exposure to the sun is not associated with the client's symptoms.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-5 Identify the primary indications for pharmacotherapy with immunostimulants.

MNL Learning Outcome: Examine drugs used for the immune system.

5) A client is prescribed cyclosporine (Sandimmune). Which assessment should the nurse make a priority?

1. Infection
2. Peripheral edema
3. Headaches
4. Cardiac output

Answer: 1

Explanation:

1. It is important to monitor for infection as cyclosporine is an immunosuppressant.
2. Cyclosporine may result in decreased urine output, but this is not the priority concern.
3. Cyclosporine may cause headaches, but this is not the priority concern.
4. Hypertension may result from use of cyclosporine, but there is no direct relation to cardiac output.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

6) The nurse is caring for a client who is prescribed an immunosuppressant. Which information should the nurse make a priority for this client?

1. Obtain adequate exercise.
2. Drink plenty of fluids.
3. Eat plenty of fruits and vegetables.
4. Avoid large crowds.

Answer: 4

Explanation:

1. An immunosuppressant places the client at risk for infection. Adequate exercise is important but will not prevent infection.
2. An immunosuppressant places the client at risk for infection. Drinking plenty of fluids is important but will not prevent infection.
3. An immunosuppressant places the client at risk for infection. Eating plenty of fruits and vegetables is important but will not prevent infection.
4. An immunosuppressant places the client at risk for infection. The client should be instructed to avoid large crowds.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

7) A parent is concerned that their child does not have adequate immunity to chickenpox. Which response should the nurse make to the parent?

1. "As long as your child has received all of the vaccinations, they should have adequate immunity."
2. "If you are concerned, we can administer a booster."
3. "It is unpredictable as to who will develop chickenpox."
4. "A titer can be drawn to determine if there is adequate immunity."

Answer: 4

Explanation:

1. Telling a parent that because their child received all of the vaccines and will have adequate immunity is incorrect information.
2. Administering a booster without evaluating a titer is not appropriate.
3. A titer will help determine if the child has an adequate amount of antibodies to protect against contracting chickenpox.
4. A titer helps determine if there is adequate antibodies to protect against chickenpox.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for immune conditions.

MNL Learning Outcome: Examine drugs used for the immune system.

8) A parent does not want their child vaccinated because there are too many risks associated with the vaccines. Which response should the nurse make to the parent?

1. "Vaccinations are safe so there is no reason to worry."
2. "Vaccinations have some risks, but the benefits outweigh the risks."
3. "The community has been misinformed about the use of vaccines."
4. "Vaccinations will be required for your child to attend school."

Answer: 2

Explanation:

1. Telling a parent not to worry about the effects of vaccines does not address their concern.
2. While there are some risks to vaccines, there are many more deaths and serious illnesses that occur from the diseases than from the vaccinations.
3. Telling the parent that the community has been misinformed is not a statement that fosters therapeutic communication.
4. A parent has the right to decline having their child vaccinated.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-4 For each of the major vaccines, list the recommended dosage schedule.

MNL Learning Outcome: Examine drugs used for the immune system.

9) The nurse instructs a client about prescribed cyclosporine (Neoral). Which client statement indicates an understanding of the information?

1. "I should not have grapefruit."
2. "I will check my blood pressure as it may run low."
3. "I should take my prescription at mealtimes."
4. "I may experience increased urine output."

Answer: 1

Explanation:

1. Grapefruit increases blood levels of cyclosporine and should not be consumed by the client while taking cyclosporine.
2. Cyclosporine can cause hypertension.
3. Food decreases the absorption of cyclosporine.
4. Cyclosporine can decrease urine output.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

10) The nurse is reviewing the body's defenses against invading organisms. Which information should the nurse recall?

1. Nonspecific body defense is effective primarily against bacteria.
2. Specific body defense usually only acts against a single organism.
3. Specific body defense includes the complement system.
4. Nonspecific body defense is also known as the immune response.

Answer: 2

Explanation:

1. Nonspecific body defense is effective against many kinds of microbes and environmental hazards, not just bacteria.
2. Specific body defense usually only acts against a single organism.
3. Nonspecific body defense includes the complement system.
4. Specific body defense is known as the immune response.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-1 Compare and contrast the innate and adaptive body defenses.

MNL Learning Outcome: Examine drugs used for the immune system.

11) The nurse is discussing immunity with a client. Which information should the nurse include about humoral and cell-mediated immune responses?

1. Helper T cells are an important part of humoral immunity.
2. Humoral immunity refers to immune responses where targets are attacked by immune cells.
3. B lymphocytes are an important part of cell-mediated immunity.
4. Humoral immunity refers to immune responses that are mediated by antibodies.

Answer: 4

Explanation:

1. Helper T cells are part of cell-mediated immunity, not humoral immunity.
2. Humoral immunity refers to immune responses that are mediated by antibodies.
3. B lymphocytes are part of humoral immunity, not cell-mediated immunity.
4. Humoral immunity refers to immune responses that are mediated by antibodies.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 34-2 Compare and contrast the humoral and cell-mediated immune responses.

MNL Learning Outcome: Examine drugs used for the immune system.

12) The nurse instructs a client who is prescribed immunosuppressant drugs after transplant surgery. Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I will report hair loss to my healthcare provider."
2. "I will wear a protective mask when going out in public."
3. "I will avoid exposure to individuals who have infections."
4. "I will make sure I use reliable contraception."
5. "I will avoid eating raw fruits and vegetables."

Answer: 1, 3, 4, 5

Explanation:

1. Hair loss may indicate significant immunosuppression and should be reported.
2. It is not necessary to wear a mask in public.
3. Avoiding exposure to individuals who have infections is a necessary precaution when a client takes immunosuppressant drugs.
4. Practicing reliable contraception is a necessary precaution when a client takes immunosuppressant drugs.
5. The client should avoid raw fruits and vegetables that can harbor infection.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

13) An adult female is beginning a series of hepatitis B immunizations. Which information should the nurse include when teaching the client about this immunization?

1. "Contact your healthcare provider if you develop pain at the injection site, mild fever, or soreness."
2. "Practice reliable birth control for 3 months after the administration of the vaccinations."
3. "Immediately report any signs of bleeding such as hematuria or bleeding from the gums."
4. "Avoid crowded areas where you might be exposed to an infectious disease."

Answer: 2

Explanation:

1. It is not necessary to contact the healthcare provider if pain develops at the injection site or if the client develops a mild fever or soreness. These are expected effects.
2. The client should practice reliable birth control for 3 months after the administration of the vaccines to prevent harm to a developing fetus.
3. Bleeding is not associated with hepatitis B immunizations.
4. It is not necessary to avoid crowded areas following a hepatitis B immunization.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 34-8 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for immune conditions.

MNL Learning Outcome: Examine drugs used for the immune system.

14) The nurse is caring for a client receiving interferon alfa-2b (Intron-A). Which statement should cause the nurse to further assess the client?

1. "I really feel sad; do I need to see a psychiatrist?"
2. "Is it safe to drink grapefruit juice with this medication?"
3. "Do I need to limit my fluids while on this drug?"
4. "Is it okay to use aspirin or ibuprofen products while on this medication?"

Answer: 1

Explanation:

1. Use of immunostimulant drugs can lead to the development of encephalopathy. The client's mental status should be assessed and the client monitored for signs and symptoms of depression and suicidal ideation.
2. There is no relationship between interferon alfa-2b and grapefruit juice.
3. There is no relationship between limiting fluids and interferon alfa-2b.
4. There is no relationship between the drug and aspirin or ibuprofen products.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 34-5 Identify the primary indications for pharmacotherapy with immunostimulants.

MNL Learning Outcome: Examine drugs used for the immune system.

15) The nurse is reviewing specific immune responses. Which structure should the nurse identify as a component of this response?

1. Lymphocytes
2. Phagocytes
3. Epithelial lining of the skin
4. Gastrointestinal membrane

Answer: 1

Explanation:

1. Lymphocytes are the primary cells of the specific immune response.
2. Phagocytes are nonspecific.
3. The epithelial lining of the skin is nonspecific.
4. The gastrointestinal membrane is nonspecific.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-1 Compare and contrast the innate and adaptive body defenses.

MNL Learning Outcome: Examine drugs used for the immune system.

16) The nurse is reviewing the immune response. Which statement describes the major difference

between B-cell lymphocytes and T-cell lymphocytes?

1. T cells produce clones.
2. B cells produce antibodies.
3. T cells produce antibodies.
4. B cells produce clones.

Answer: 2

Explanation:

1. B and T cells both produce clones.
2. B cells produce antibodies.
3. T cells do not produce antibodies but rather cytokines.
4. B and T cells both produce clones.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-2 Compare and contrast the humoral and cell-mediated immune responses.

MNL Learning Outcome: Examine drugs used for the immune system.

17) The nurse is reviewing the steps in the humoral and cell-mediated immune response. Which substance is produced by T cells?

1. Cytokines
2. Leukotrienes
3. Lymphocytes
4. Erythrocytes

Answer: 1

Explanation:

1. Cytokines are produced by T cells to kill off foreign organisms.
2. Leukotrienes are not produced by T cells.
3. Lymphocytes are blood products that assist with the immune system.
4. Erythrocytes are red blood cell components.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-2 Compare and contrast the humoral and cell-mediated immune responses.

MNL Learning Outcome: Examine drugs used for the immune system.

18) A client is prescribed immunostimulant therapy. Which assessment should the nurse make a priority?

1. Changes in weight
2. Intake and output
3. Hepatic enzymes
4. Vital signs

Answer: 3

Explanation:

1. Weight changes are not the highest priority.
2. Monitoring intake and output is important but not the most important consideration.
3. Immunostimulants are hepatotoxic when used long term. Hepatic enzymes may become elevated, which could require discontinuation of the drug.
4. Vital signs are necessary with any medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-5 Identify the primary indications for pharmacotherapy with immunostimulants.

MNL Learning Outcome: Examine drugs used for the immune system.

19) The nurse is reviewing a list of medications. Which drugs should the nurse identify that are classified as immunosuppressants?

1. Gamma globulin
2. Glucocorticoids
3. Antipsychotics
4. Antifungals

Answer: 2

Explanation:

1. Gamma globulin is not a class of immunosuppressants.
2. Glucocorticoids are a class of immunosuppressants.
3. Antipsychotics are not a class of immunosuppressants.
4. Antifungals are not a class of immunosuppressants.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

20) The nurse is reviewing a client's list of vaccinations. Which vaccine should the nurse identify that is initially administered in the scheduled series of vaccinations?

1. Hepatitis B
2. Meningococcal conjugate
3. Diphtheria, tetanus, and pertussis
4. Measles, mumps, and rubella

Answer: 1

Explanation:

1. Hepatitis B is the first vaccine to be administered in the scheduled series of vaccines. The first dose is received at birth.
2. Meningococcal conjugate is administered between 11 and 12 years of age.
3. The first dose of diphtheria, tetanus, and pertussis is given at 2 months of age.
4. The first dose of measles, mumps, and rubella is administered at 12 to 15 months of age.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-4 For each of the major vaccines, list the recommended dosage schedule.

MNL Learning Outcome: Examine drugs used for the immune system.

21) A parent asks when their infant will receive the hepatitis A vaccine. Which information should the nurse provide?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The first dose will be administered before you take your baby home from the newborn nursery."
2. "It will be included in the series of immunizations given at 2 months, 4 months, and 6 months."
3. "Your child will receive the first dose at 12 months."
4. "Not until school age."
5. "About 6 to 12 months after the initial vaccine, a booster will be given."

Answer: 3, 5

Explanation:

1. Hepatitis A is not given to a newborn.
2. Hepatitis A is not given with this series.
3. The first dose of hepatitis vaccine is administered when the child is 12 months old.
4. The hepatitis A vaccine is administered to children at an earlier date than school age.
5. A booster immunization is given 6 to 12 months after the initial immunization.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-4 For each of the major vaccines, list the recommended dosage schedule.

MNL Learning Outcome: Examine drugs used for the immune system.

22) A new mother who is breastfeeding refuses vaccinations for the infant because immunity is being provided through breast milk. Which responses should the nurse make to the mother?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You are correct that your baby will receive some passive immunity from you."
2. "The immunity your baby is receiving only lasts while you are breastfeeding."
3. "There are some diseases for which immunity is not passed from mother to child."
4. "Your baby will need the extra protection provided by standard immunizations."
5. "Vaccines are not indicated until you completely stop breastfeeding."

Answer: 1, 3, 4

Explanation:

1. The mother is correct that passive immunity to some diseases is provided through the placenta and through breast milk.
2. The passive immunity the infant receives has a fast onset but only lasts 3 to 6 months.
3. The passive immunity the infant has received does not protect them from the diseases that acquired immunity does.
4. In order to be protected from many diseases, the child will need acquired immunity from vaccine.
5. The vaccine schedule for a breastfed infant is the same as for an infant who is not breastfed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-3 Identify five types of vaccines and distinguish between active and passive immunity.

MNL Learning Outcome: Examine drugs used for the immune system.

23) A client reports being treated with interferon alfa-2b for cancer. For which type of cancer should the nurse recognize the client may have been treated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Breast cancer
2. Malignant melanoma
3. Kaposi sarcoma
4. Bladder cancer
5. Oral cancer

Answer: 2, 3, 4

Explanation:

1. Breast cancer is not treated with interferon alfa-2b.
2. Malignant melanoma is one of the cancers treated with the drug.
3. Kaposi sarcoma is one of the cancers treated with interferon alfa-2b.
4. An off-label use of interferon alfa-2b is the treatment of bladder cancer.
5. There is no indication for use of interferon alfa-2b in treatment of cancers located in the sinuses.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 34-5 Identify the primary indications for pharmacotherapy with immunostimulants.

MNL Learning Outcome: Examine drugs used for the immune system.

24) The nurse is preparing a teaching tool about vaccinations. Which information should the nurse include about influenza vaccinations?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The influenza vaccine is administered as an injection.
2. Children should not receive influenza immunizations until age 10.
3. Intranasal vaccine is available for preschool children.
4. A child receives a dose against influenza B at age 2 months.
5. A child will receive one dose at 6 months and then every year.

Answer: 4, 5

Explanation:

1. An injection is not the only form used to administer the influenza vaccine.
2. Influenza immunizations are started earlier than age 10.
3. There is no intranasal vaccine for preschool children.
4. A dose of the influenza B vaccine is given at age 2 months.
5. A child will receive one dose at 6 months and then every year.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 34-4 For each of the major vaccines, list the recommended dosage schedule.  
MNL Learning Outcome: Examine drugs used for the immune system.

25) The nurse reviews the use of immunosuppressants with a new graduate nurse. Which statement made by the new graduate indicates an understanding of the information?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Immunosuppressants prevent tissue rejection."
2. "Immunosuppressants treat severe inflammatory diseases."
3. "Immunosuppressants dampen the immune response."
4. "Immunosuppressants stimulate new immunity."
5. "Immunosuppressants eradicate the immune system."

Answer: 1, 2, 3

Explanation:

1. Immunosuppressants prevent tissue rejection.
2. Immunosuppressants treat severe inflammatory diseases
3. Immunosuppressants dampen the immune response.
4. Immunosuppressants do not stimulate new immunity.
5. Immunosuppressants do not eradicate the immune system.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

26) A parent expressed the concern that some vaccines contain live microbes. Which statement should the nurse include in the discussion with the parent?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The microbes are live but are weakened."
2. "The microbes are not able to cause the disease."
3. "The measles, mumps, and rubella vaccine is an example."
4. "The microbes in the vaccines are killed."
5. "The microbes are only found in toxoid vaccines."

Answer: 1, 3

Explanation:

1. Attenuated vaccines contain microbes that are weakened.
2. Attenuated vaccines cause disease in those who are immunocompromised.
3. The measles, mumps, and rubella vaccine is attenuated.
4. Not all vaccines are made with microbes that have been killed.
5. Toxoid vaccines contain bacterial toxins.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 34-4 For each of the major vaccines, list the recommended dosage schedule.

MNL Learning Outcome: Examine drugs used for the immune system.

27) A postpartum client with an A— blood type asks when the Rh0(D) immune globulin (RhoGAM) injection will be given. Which response should the nurse make?

1. "When we verify your blood type."
2. "When we verify your Rh factor."
3. "When we verify your infant's Rh factor."
4. "When we verify your infant's blood type."

Answer: 3

Explanation:

1. Rh0(D) immune globulin is not given according to the mother's blood type.
2. The injection is not given according to the mother's Rh factor.
3. Rh0(D) immune globulin is administered within 72 hours after delivery if the infant is Rh negative.
4. Rh0(D) immune globulin is not given according to the infant's blood type.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-3 Identify five types of vaccines and distinguish between active and passive immunity.

MNL Learning Outcome: Examine drugs used for the immune system.

28) A client asks why a booster vaccine is needed. Which response should the nurse make?

1. "Boosters provide sustained protection."
2. "Boosters reactivate your immunity."
3. "Boosters cover the new strains of viruses."
4. "Boosters stimulate the production of antibodies."

Answer: 1

Explanation:

1. Boosters provide sustained protection.
2. Boosters do not reactivate immunity; they stimulate the immune system to retain enough memory cells to mount a rapid response to an antigen.
3. Boosters do not cover the new strains of viruses; they stimulate the immune system to retain enough memory cells to mount a rapid response to an antigen.
4. Boosters do not stimulate the production of antibodies; they stimulate the immune system to retain enough memory cells to mount a rapid response to an antigen.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-3 Identify five types of vaccines and distinguish between active and passive immunity.

MNL Learning Outcome: Examine drugs used for the immune system.

29) A client who had a kidney transplant 5 days prior is glad that kidney rejection has not occurred. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cell-mediated rejection takes place about 2 weeks after transplant.
2. Chronic rejection may occur months after transplant.
3. Chronic rejection may occur years after transplant.
4. Transplant rejection does not occur until several days after transplant.
5. Transplant rejection is rare in kidney transplants.

Answer: 1, 2, 3

Explanation:

1. Cell-mediated rejection takes time and occurs about 2 weeks after transplant.
2. Chronic rejection may occur months after surgery.
3. Chronic rejection may occur years after surgery.
4. Acute transplant rejection occurs almost immediately.
5. Rejection is an issue in all organ transplants.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 34-6 Identify the primary indications for pharmacotherapy with immunosuppressants.

MNL Learning Outcome: Examine drugs used for the immune system.

30) A client is receiving interferon alfa-2b (Intron-A) therapy. Which client statement indicates to the nurse that the client is experiencing an adverse effect of the therapy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I have been feeling dizzy."
2. "I have an itchy rash on my legs."
3. "I have lost my appetite."
4. "I am frequently tired."
5. "My bones feel achy."

Answer: 1, 3, 4

Explanation:

1. Dizziness occurs in about half of those taking interferon.
2. Rash is not a common adverse effect.
3. Anorexia is a relatively common adverse effect.
4. Fatigue occurs in about half of those taking interferon.
5. Bone pain is not a common adverse effect.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 34-5 Identify the primary indications for pharmacotherapy with immunostimulants.

MNL Learning Outcome: Examine drugs used for the immune system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 35 Drugs for Bacterial Infections**

1) The nurse plans to teach a client with acquired immune deficiency syndrome (AIDS) about bacterial infections. Which information should the nurse include in this teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "If just a few bacteria make you sick, this is virulence."
2. "Most bacteria have developed antibiotic resistance."
3. "Pathogens are divided into two classes, bacteria and viruses."
4. "Pathogenicity means the bacteria can cause an infection."
5. "Actually, most bacteria will not harm us."

Answer: 1, 4, 5

Explanation:

1. A highly virulent microbe is one that can produce disease when present in minute numbers.
2. Antibiotic resistance is a problem; however, only a few, not most, bacteria have developed it.
3. Human pathogens include viruses, bacteria, fungi, unicellular organisms, and multicellular animals.
4. The ability of an organism to cause infection is called pathogenicity.
5. Only a few dozen pathogens commonly cause disease in humans; most are harmless.

Page Ref: 492

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 35-1 Distinguish between pathogenicity and virulence.

MNL Learning Outcome: Examine drugs used for bacterial infections.

2) A client has a bacterial infection. Which information should the nurse include when teaching about this infection?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Bacteria are either aerobic or anaerobic.
2. Bacteria are multicellular organisms.
3. *E. coli* is a type of gram-negative bacteria.
4. Gram staining is one way to identify bacteria.
5. Spherical-shaped bacteria are called cocci.

Answer: 3, 4, 5

Explanation:

1. Some organisms have the ability to change their metabolism and survive in either aerobic or anaerobic conditions.
2. Bacteria are single-celled organisms.
3. *E. coli* is a type of gram-negative bacteria.
4. Gram staining is one way to identify bacteria.
5. Spherical-shaped bacteria are called cocci.

Page Ref: 492

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 35-2 Explain how bacteria are described and classified.

MNL Learning Outcome: Examine drugs used for bacterial infections.

3) A client does not understand why a prescribed antibiotic did not kill the bacteria that caused an infection. Which response should the nurse make to the client?

1. "Some antibiotics work with your body's ability to help kill the infection."
2. "Your healthcare provider will most likely prescribe a different type of antibiotic."
3. "Your healthcare provider will want additional bloodwork to identify type of bacteria."
4. "Your infection is not a serious one and over time your body should be able to kill the bacteria."

Answer: 1

Explanation:

1. Some prescriptions have a bacteriostatic action that does not kill the bacteria but instead slows the growth. The body's natural defenses work to dispose of microorganisms.
2. At this time, it is not necessary to prescribe an alternative antibiotic.
3. At this time, it is not necessary to consider further evaluation through additional bloodwork.
4. There is no indication the client has a serious infection.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-4 Compare and contrast bacteriostatic and bactericidal.

MNL Learning Outcome: Examine drugs used for bacterial infections.

4) A client is receiving multiple antibiotics. Which assessment should the nurse make a priority for this client?

1. Blood cultures for the presence of bacteria
2. Changes in stool, white patches in the mouth, and urogenital itching or rash
3. Renal and liver function tests
4. Adequate food and fluid intake

Answer: 2

Explanation:

1. Assessing blood cultures is important but not as important as assessing for superinfections.
2. A superinfection occurs when microorganisms normally present in the body, host flora, are destroyed by antibiotic therapy. A superinfection can be lethal and should be suspected if a new infection appears while the client is receiving antibiotics. Signs of superinfection commonly include diarrhea, white patches in the mouth, urogenital itching, and presence of a blistering, itchy rash.
3. Assessing renal and liver function tests is very important but not as important as assessing for superinfections.
4. Assessment of food and fluid intake is very important but not as important as assessment for superinfections.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

5) A client is concerned because an infection continues despite taking antibiotics. Which statement should the nurse include when discussing antibiotic resistance with the client?

1. "Resistance to antibiotics most often occurs when a client has a suppressed immune system."
2. "Resistance to antibiotics can occur by the common use for nosocomial infections."
3. "Resistance to antibiotics most often occurs when prescribed to treat the wrong organism."
4. "Resistance to antibiotics can occur any time they are prescribed prophylactically."

Answer: 2

Explanation:

1. Resistance to antibiotics does not occur as the result of a suppressed immune system.
2. The organisms that cause nosocomial infections that have been treated with widely prescribed antibiotics over time are the most likely organisms to develop resistance to antibiotics.
3. Antibiotic resistance does not occur when incorrect antibiotics are prescribed to treat the wrong organism.
4. The prophylactic use of antibiotics does not promote antibiotic resistance.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 35-5 Using a specific example, explain how resistance can develop to an anti-infective drug.

MNL Learning Outcome: Examine drugs used for bacterial infections.

6) A client has a fever of 104°F. Which laboratory test should the nurse anticipate being prescribed to help identify the correct antibiotic to treat the client?

1. Liver function tests
2. Complete blood count (CBC)
3. Urinalysis
4. Blood for culture and sensitivity

Answer: 4

Explanation:

1. Liver function tests do not identify pathogenic organisms.
2. A CBC reflects the action of the immune system but does not identify the pathogenic organism.
3. A urinalysis is not used to identify pathogenic organisms.
4. A high fever is usually indicative of a systemic infection. Blood cultures are the best way of identifying the causative organism in order to prescribe the appropriate treatment.

Page Ref: 496

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 35-6 Identify the role of culture and sensitivity testing in the selection of an effective antibiotic.

MNL Learning Outcome: Examine drugs used for bacterial infections.

7) A client is prescribed intravenous gentamicin. Which action should the nurse make a priority?

1. Monitor the client for hearing loss.
2. Draw daily blood chemistries.
3. Decrease the fluids for the client during therapy.
4. Place the client on isolation precautions.

Answer: 1

Explanation:

1. Aminoglycosides are ototoxic drugs, and the client should be monitored for hearing loss.
2. Serum levels of the drug are indicated but not blood chemistries.
3. Decreasing fluids during therapy is not indicated.
4. Isolation is determined by the causative organism, not the drug used for treatment.

Page Ref: 505

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

8) The nurse notes a client that has received intravenous vancomycin (Vancocin) develops an

upper body rash and has a decreased urine output. In addition to notifying the healthcare provider, which action should the nurse make a priority?

1. Hold the next dose of vancomycin (Vancocin).
2. Obtain a stat x-ray.
3. Administer an antihistamine.
4. Obtain a sterile urine specimen.

Answer: 1

Explanation:

1. An upper body rash and decreased urine output are most likely symptoms of vancomycin (Vancocin) toxicity, so the medication should be held.
2. There is no indication a chest x-ray is needed.
3. The nurse should only administer treatments according to protocol or as prescribed.
4. There is no indication a sterile urine specimen is needed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

9) A client with tuberculosis asks why multiple drugs are being prescribed. Which information should the nurse include in the education?

1. "Current research indicates that the most effective way to treat tuberculosis is with multiple drugs."
2. "Multiple drugs are necessary because the bacteria are likely to develop resistance to just one drug."
3. "Treatment for tuberculosis is complex, and multiple drugs must be continued for as long as you are contagious."
4. "Multiple drug treatment is necessary to help develop an immunity to tuberculosis."

Answer: 2

Explanation:

1. Current research does support multiple drug treatment, but this does not explain the rationale to the client.
2. Tuberculosis bacilli are likely to develop resistance to one drug, so multiple drugs must be used.
3. Treatment must be continued long after the client is no longer contagious.
4. Clients cannot develop immunity to bacterial infections.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

10) A client is prescribed penicillin G. Which action should the nurse complete before giving a dose of the medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Have the client lie down and assess vital signs.
2. Inquire about a history of allergies to penicillin.
3. Inform the client that they will need to be observed for 30 minutes after the injection.
4. Inform the client that they will need someone to drive them home.
5. Advise the client to rest for the remainder of the day.

Answer: 2, 3

Explanation:

1. There is no reason to have the client lie down. It is not important to assess vital signs unless a problem has developed.
2. It is always important to ask about allergies prior to the administration of any medication. The nurse must be aware, however, that a history of no allergies does not guarantee there will not be an allergic response to penicillin G.
3. It is important that the client be reassessed for development of allergic reaction before leaving the clinic.
4. There is no indication that the client will require someone else to drive them home.
5. There is no specific reason the client should rest after the administration of penicillin G.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

11) A client has a sore throat, white patches on the tonsils, and swollen cervical lymph nodes. Which treatment plan should the nurse anticipate for the client?

1. Narrow-spectrum antibiotic
2. Broad-spectrum antibiotic
3. Blood cultures
4. Throat culture

Answer: 4

Explanation:

1. Initial therapy with a narrow-spectrum antibiotic is too specific without knowing the causative organism.
2. A broad-spectrum antibiotic is commonly ordered, but a throat culture should be obtained first.
3. Blood cultures are not necessary at this point because the infection is in the throat; it is not systemic.
4. A throat culture is necessary to identify the causative organism and initiate the best antibiotic treatment.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 35-6 Identify the role of culture and sensitivity testing in the selection of an effective antibiotic.

MNL Learning Outcome: Examine drugs used for bacterial infections.

12) A client prescribed amoxicillin (Amoxil) for 10 days to treat strep throat plans to stop the medication when the symptoms subside. Which response should the nurse provide to the client?

1. "If you stop the prescription early, you may have not effectively killed the bacteria."
2. "You should get another throat culture if your symptoms return."
3. "Stopping the medication early could result in resistance to the antibiotic."
4. "If you do stop your medication early, make sure you get another throat culture."

Answer: 1

Explanation:

1. The prescription must be taken as prescribed to ensure that all of the bacteria have been killed.
2. Another throat culture is inappropriate; the client must finish the medication.
3. Stopping the medicine early can result in resistance to the antibiotic, but the client may not care about this unless they understand how this can directly affect them.
4. Another throat culture is inappropriate; the client must finish the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

13) A female client is prescribed penicillin G. Which question should the nurse ask the client?

1. "Are you pregnant?"
2. "Do you plan to become pregnant?"
3. "Are you breastfeeding?"
4. "Are you taking birth control pills?"

Answer: 4

Explanation:

1. There is no information about the use of penicillin G when pregnant.
2. No information is available about the use of penicillin G before conception.
3. There is no information about the use of penicillin G when breastfeeding.
4. Penicillin can cause birth control pills to lose their effectiveness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

14) A client is prescribed a cephalosporin antibiotic. Which question should the nurse ask the client before giving a dose of the medication?

1. "Are you taking oral contraceptives?"
2. "Are you pregnant?"
3. "Are you allergic to penicillin?"
4. "Are you allergic to tetracycline?"

Answer: 3

Explanation:

1. Cephalosporins are not identified as interacting with oral contraceptives.
2. Cephalosporins do not cause fetal harm.
3. Cephalosporins are contraindicated in clients who have experienced a severe allergic reaction to penicillin.
4. Cephalosporins are not contraindicated in clients who have experienced an allergic reaction to tetracycline.

Page Ref: 500

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

15) The nurse is reviewing the pathophysiology of bacterial infections. Which phrase should the nurse identify that describes pathogenicity?

1. Ability of organisms to cause infection
2. Ability to kill pathogens
3. Ability for disease to occur when pathogens are present
4. Ability to disrupt the DNA of the pathogen

Answer: 1

Explanation:

1. The ability of an organism to cause infection is its pathogenicity.
2. Medications that can kill bacteria are called bactericidal.
3. A highly virulent microbe is one that can produce disease when present in minute numbers.
4. The DNA is not disrupted through pathogenicity.

Page Ref: 492

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-1 Distinguish between pathogenicity and virulence.

MNL Learning Outcome: Examine drugs used for bacterial infections.

16) A client is diagnosed with a bacterial infection. In which way should the nurse describe the

action of bactericidal drugs?

1. Disrupt normal cell function
2. Slow the growth of the bacteria
3. Have high potency
4. Kill the bacteria

Answer: 4

Explanation:

1. Bactericidal drugs do not disrupt normal cell function.
2. Bacteriostatic drugs slow the growth of bacteria.
3. Potency is related to the properties of resistance.
4. Bactericidal drugs kill the bacteria.

Page Ref: 493

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-4 Compare and contrast bacteriostatic and bactericidal.

MNL Learning Outcome: Examine drugs used for bacterial infections.

17) A client is prescribed tetracycline. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Take the medication with antacids.
2. Do not take the prescription with iron supplements.
3. Do not take the prescription with milk.
4. Do not take the prescription with vitamins.
5. Take the prescription with food.

Answer: 2, 3, 5

Explanation:

1. Antacids can decrease the effectiveness of tetracycline.
2. Iron can decrease the effectiveness of tetracycline.
3. Tetracycline effectiveness can be decreased by using milk products.
4. Vitamins do not have an effect on tetracycline.
5. Gastric distress is common with tetracyclines. The client should be instructed to take the prescription with food to avoid gastric distress.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

18) A client is receiving intravenous gentamicin. For which adverse effect should the nurse monitor this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Neuromuscular toxicity
2. Nephrotoxicity
3. Cardiotoxicity
4. Neurotoxicity
5. Acute toxicity

Answer: 1, 2, 4

Explanation:

1. Neuromuscular blockade and respiratory paralysis are possible and the drug may cause severe neuromuscular weakness that lasts for several days.
2. Nephrotoxicity is an adverse effect associated with gentamicin.
3. Cardiotoxicity is not an adverse effect associated with gentamicin.
4. Neurotoxicity includes ototoxicity which is an adverse effect that could occur while receiving gentamicin.
5. Acute toxicity is not usually associated with the administration of gentamicin.

Page Ref: 505

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in *Drugs at a Glance*, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

19) Prior to administering a prescribed dose of gentamicin, the nurse notes the client's serum level is 12 mcg/mL. Which action should the nurse take?

1. Administer the dose of gentamicin
2. Request a new culture and sensitivity
3. Request a new serum level
4. Hold the dose of gentamicin

Answer: 4

Explanation:

1. The nurse should withhold the prescription if the peak serum level lies above the normal range of 5 to 10 mcg/mL.
2. There is no indication a new culture and sensitivity is required.
3. There is no indication the serum level should be repeated.
4. The nurse should withhold the prescription if the peak serum level lies above the normal range of 5 to 10 mcg/mL.

Page Ref: 505

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 35-6 Identify the role of culture and sensitivity testing in the selection of an effective antibiotic.

MNL Learning Outcome: Examine drugs used for bacterial infections.

20) The nurse notes a client has a gram-negative urinary tract infection. Which medication should the nurse anticipate be prescribed?

1. Tetracycline (Achromycin V)
2. Vancomycin (Vancocin)
3. Ciprofloxacin (Cipro)
4. Gentamicin

Answer: 3

Explanation:

1. Due to the large number of bacteria-resistant strains, tetracycline is limited to therapeutic utility and are first line drugs for very few diseases.
2. Vancomycin is an antibiotic reserved for severe infections from gram-positive organisms.
3. Ciprofloxacin (Cipro) is a second-generation fluoroquinolone that is prescribed for urinary tract infections and is most effective against gram-negative organisms.
4. Gentamicin is a broad-spectrum, bactericidal antibiotic used for serious urinary tract infections when less toxic antibiotics are contraindicated.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

21) A client has a complicated methicillin-resistant *Staphylococcus aureus* (MRSA) infection. Which medication should the nurse anticipate being prescribed?

1. Penicillin G
2. Linezolid (Zyvox)
3. Quinupristin/dalfopristin (Synercid)
4. Clindamycin (Cleocin)

Answer: 3

Explanation:

1. Penicillin G is not identified to treat MRSA infections.
2. Linezolid (Zyvox) is one of two drugs in a class of antibiotics called the oxazolidinones. Linezolid is an alternative to vancomycin for treating MRSA infections.
3. Quinupristin/dalfopristin (Synercid) is a combination drug that is primarily reserved for treating vancomycin-resistant *Enterococcus faecium* infections and complicated MRSA infections.
4. Clindamycin (Cleocin, others) is effective against both gram-positive and gram-negative bacteria but not against a complicated MRSA infection.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 35-9 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for bacterial infections.

MNL Learning Outcome: Examine drugs used for bacterial infections.

22) A client is prescribed cefotaxime. For which adverse effect should the nurse monitor in the client?

1. Diarrhea
2. Headache
3. Fever
4. Tachycardia

Answer: 1

Explanation:

1. Diarrhea is a frequent adverse effect of a cephalosporin.
2. A headache is not an adverse effect of a cephalosporin.
3. A fever is not an adverse effect of a cephalosporin.
4. Tachycardia is not an adverse effect of a cephalosporin.

Page Ref: 500

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

23) A client is prescribed trimethoprim-sulfamethoxazole (Septra). Which client statement should cause the nurse concern?

1. "I will take this prescription with water."
2. "I forgot to take iron today."
3. "I will not take my warfarin at the same time."
4. "If I go out, I will make sure to use a strong sunscreen."

Answer: 3

Explanation:

1. Trimethoprim-sulfamethoxazole should be taken with a glass of water.
2. Iron can be taken with trimethoprim-sulfamethoxazole.
3. Sulfa drugs may enhance the effects of oral anticoagulants, causing serious or life-threatening interactions.
4. Sulfa drugs can cause photosensitivity.

Page Ref: 509

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

24) The nurse is reviewing the different categories of antibiotics. Which classification of antibiotics should the nurse recognize as the safest and most commonly prescribed?

1. Macrolides
2. Aminoglycosides
3. Sulfonamides
4. Penicillin

Answer: 4

Explanation:

1. Macrolides exhibit few serious adverse effects; however, because macrolides are broad-spectrum anti-infectives, superinfections may occur.
2. Aminoglycosides are more toxic than many other classes of antibiotics.
3. Due to the widespread availability of sulfonamides for over 80 years, a substantial number of resistant strains of bacteria have appeared.
4. In general, the adverse effects of penicillins are minor; they are one of the safest classes of antibiotics.

Page Ref: 495

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

25) A client is prescribed a urinary antiseptic. In which way should the nurse explain the action of this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. They can be administered intravenously.
2. They are used as first-line treatment of urinary tract infections.
3. Therapeutic levels of the drug are reached in the kidney.
4. They treat local infections in the urinary tract.
5. The anti-infective action is specific to the urinary system.

Answer: 3, 4, 5

Explanation:

1. Urinary antiseptics are administered orally.
2. Urinary antiseptics are a secondary prescription.
3. Therapeutic levels of the drug are reached in the kidney.
4. Urinary antiseptics treat local infections in the urinary tract.
5. The anti-infective action of urinary antiseptics is specific to the urinary system.

Page Ref: 508

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

26) A client is prescribed an antibiotic. Which information should the nurse provide when teaching the client actions to reduce antibiotic resistance?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The best way to prevent antibiotic resistance is to prevent infections from occurring.
2. Antibiotic prescriptions are not used for the treatment of colds and influenza.
3. Take the full amount of any prescribed medication.
4. See a healthcare provider when feeling ill.
5. Use good infection control measures.

Answer: 1, 2, 3, 5

Explanation:

1. It is much easier to prevent infection than it is to treat an infection.
2. Antibiotic prescriptions are not used for the treatment of colds and influenza. Antibiotic treatment is not used to treat viruses.
3. Stopping antibiotic therapy prematurely allows the stronger pathogens to survive.
4. Not all illnesses require the healthcare provider's intervention.
5. Preventing transmission of illnesses is essential.

Page Ref: 494-495

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 35-5 Using a specific example, explain how resistance can develop to an anti-infective drug.

MNL Learning Outcome: Examine drugs used for bacterial infections.

27) A client has an infection that can be treated by a broad-spectrum penicillin. Which drug should the nurse identify as appropriate for the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Oxacillin
2. Ampicillin
3. Piperacillin
4. Amoxicillin
5. Dicloxacillin

Answer: 2, 4

Explanation:

1. Oxacillin is a penicillinase-resistant penicillin.
2. Ampicillin is a broad-spectrum aminopenicillin.
3. Piperacillin is an extended-spectrum penicillin.
4. Amoxicillin is a broad-spectrum aminopenicillin.
5. Dicloxacillin is a penicillinase-resistant penicillin.

Page Ref: 498

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in *Drugs at a Glance*, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

28) A client requires an extended-spectrum penicillin to treat an infection. Which medication should the nurse anticipate being prescribed for the client?

1. Oxacillin
2. Piperacillin
3. Penicillin V
4. Ampicillin

Answer: 2

Explanation:

1. Oxacillin is a penicillinase-resistant penicillin.
2. Piperacillin is an extended-spectrum penicillin.
3. Penicillin V is a natural penicillin.
4. Ampicillin is a broad-spectrum penicillin.

Page Ref: 498

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

29) A client with an infection is prescribed a penicillin. Which unit of measurement should the nurse anticipate the penicillin to be prescribed?

1. Grams
2. Grains
3. Units
4. Milligrams

Answer: 3

Explanation:

1. Penicillin is not prescribed in grams.
2. Penicillin is not prescribed in grains.
3. Penicillin is prescribed in units.
4. Penicillin is not prescribed in milligrams.

Page Ref: 498

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in Drugs at a Glance, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

30) A client is prescribed a carbapenem antibiotic. Which phrase describes a characteristic of this type of antibiotic?

1. They have some of the broadest antimicrobial spectrums.
2. They have one of the lowest resistance rates.
3. They have some of the narrowest antimicrobial spectrums.
4. They have one of the longest half-lives.

Answer: 1

Explanation:

1. The carbapenems have some of the broadest antimicrobial spectrums.
2. The carbapenems do not have one of the lowest resistance rates.
3. The carbapenems have some of the narrowest antimicrobial spectrums.
4. The carbapenems do not have one of the longest half-lives.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 35-8 For each of the drug classes listed in *Drugs at a Glance*, know representative drug examples, and explain their mechanism of action, primary actions, and important adverse effects.

MNL Learning Outcome: Examine drugs used for bacterial infections.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 36 Drugs for Tubercular, Fungal, Protozoan, and Helminthic Infections**

1) The nurse reviews the subject of fungal infections with a new graduate nurse. Which statement made by the new nurse indicates an understanding of the information?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Superficial infections are more difficult to treat than systemic infections."
2. "Newer medications can be used for superficial as well as systemic infections."
3. "Systemic infections are much more common than superficial infections."
4. "Superficial infections are considered more benign than systemic infections."
5. "Systemic infections require oral medications that have serious adverse effects."

Answer: 2, 4, 5

Explanation:

1. Superficial infections are less difficult to treat than systemic infections.
2. Some of the newer antifungal agents may be used for either superficial or systemic infections.
3. Systemic infections are less, not more, common than superficial infections.
4. Superficial infections are relatively benign; systemic infections can be life threatening.
5. Systemic infections often require aggressive oral or parenteral medications that produce more adverse effects than topical agents.

Page Ref: 522

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 36-3 Compare and contrast systemic mycoses from superficial mycoses. MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

2) A client who has had malaria for many years asks why the medications might not cure the illness when there are several drugs available. Which response should the nurse make?

1. "When erythrocytes rupture, the parasites are too numerous for medications to be effective."
2. "Late in the illness, the immune system is too overwhelmed for medications to be effective."
3. "Once the parasite starts multiplying in your liver, medications are usually ineffective."
4. "When cysts occur late in the disease, the parasite is too resistant for the medications to be effective."

Answer: 4

Explanation:

1. Erythrocytes rupture early in the course of the illness, and prescriptions are more effective at this stage.
2. Late in the illness, prescriptions are often ineffective because the parasites are in cysts, not because the immune system is overwhelmed.
3. The parasites begin multiplying in the liver in the earliest stage of the illness, when prescriptions are most effective.
4. When cysts occur inside the host, the parasite is often resistant to pharmacotherapy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 36-8 Explain how an understanding of the Plasmodium lifecycle is important to the effective pharmacotherapy of malaria.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

3) A client is planning a trip to Africa. Which prophylactic treatment should the nurse anticipate to be prescribed for the client?

1. Antibiotics
2. Protease inhibitors
3. Immunizations for malaria
4. Antimalarial drugs

Answer: 4

Explanation:

1. Prophylactic antibiotics are not recommended.
2. Protease inhibitors are used to treat viral infections and are not taken prophylactically.
3. To date, there are no effective immunizations against malaria.
4. Taking antimalarial drugs prophylactically is recommended when traveling to countries where malaria is found.

Page Ref: 530

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 36-8 Explain how an understanding of the Plasmodium lifecycle is important to the effective pharmacotherapy of malaria.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

4) The nurse reviews information received during hand-off report. Which client should the nurse identify as being at the greatest risk for acquiring a fungal infection?

1. A client with severe burns over 20% of the body
2. An adolescent client with a fractured femur
3. A client with anemia who is pregnant with triplets
4. A client with malignant melanoma who is receiving chemotherapy

Answer: 4

Explanation:

1. The client with burns is at risk but will not acquire the infection if infection control procedures are followed.
2. The adolescent with a fractured femur is not at risk for a fungal infection.
3. The pregnant client with anemia is not at risk for a fungal infection.
4. Chemotherapy suppresses the immune system; clients with suppressed immune systems are at the highest risk.

Page Ref: 522

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-11 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for tubercular, fungal, protozoan, and helminthic infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

5) The nurse instructs a client prescribed an antifungal. Which client statement indicates further teaching is required?

1. "I will increase my fluid intake to 2 L per day."
2. "I will get up slowly to avoid feeling dizzy."
3. "I will avoid drinking carbonated beverages."
4. "I will take my medication with milk."

Answer: 2

Explanation:

1. The client should be instructed to increase fluid intake to 2 L per day to prevent nephrotoxicity.
2. The client should be instructed to immediately report dizziness to the healthcare provider.

Antifungals are ototoxic.

3. Antifungals cause gastrointestinal upset, so carbonated beverages should be avoided.

4. Antifungals cause gastrointestinal upset, so the client should be instructed to take the medication with milk.

Page Ref: 528

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 36-8 Explain how an understanding of the Plasmodium lifecycle is important to the effective pharmacotherapy of malaria.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

6) A client is prescribed amphotericin B (Fungizone). Which intervention should the nurse add to the client's plan of care?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Administer the medication by IV push.
2. Administer acetaminophen before giving the amphotericin B (*Fungizone*).
3. Review the BUN level.
4. Administer corticosteroids 1 hour after infusion is completed.
5. Monitor for GI bleeding.

Answer: 1, 2, 3

Explanation:

1. This medication should be infused slowly to avoid cardiovascular collapse.
2. Giving acetaminophen prior to the infusion may decrease the risk of hypersensitivity reaction.
3. The drug should be withheld if the BUN exceeds 40 g/dL.
4. Corticosteroid administration should be part of the preadministration preparation.
5. Gastrointestinal bleeding is not a concern.

Page Ref: 524

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 36-5 Identify drugs used to treat systemic fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

7) A client is prescribed oral suspension nystatin (Nystop) for an oral fungal infection. Which information should the nurse include when teaching about this medication?

1. Apply with a swab to the affected area.
2. Mix the solution in 1 cup of water.
3. Swallow the solution as soon as possible.
4. Swish in the mouth for 2 minutes before spitting it out.

Answer: 1

Explanation:

1. Nystatin is applied to the affected areas with a swab in infants and children because swishing is difficult or impossible.
2. The client should not mix the nystatin in water.
3. The client should be instructed to swish the nystatin around the mouth for 2 minutes prior to swallowing it.
4. The client should be instructed to swish the nystatin around the mouth for 2 minutes prior to swallowing it.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-7 Identify drugs used to treat superficial fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

8) A client is receiving amphotericin B (Fungizone). Which laboratory value should the nurse monitor in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Serum amylase
2. Serum sodium
3. Blood urea nitrogen (BUN)
4. Serum glucose
5. Serum creatinine

Answer: 3, 5

Explanation:

1. Amphotericin B (Fungizone) does not affect serum amylase.
2. Amphotericin B (Fungizone) does not affect serum sodium.
3. Amphotericin B (Fungizone) is nephrotoxic, so BUN should be monitored.
4. Amphotericin B (Fungizone) does not affect serum glucose.
5. Amphotericin B (Fungizone) is nephrotoxic, so serum creatinine should be monitored.

Page Ref: 524

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-5 Identify drugs used to treat systemic fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

9) The nurse instructs a client treated for pinworms with mebendazole (Emvem). Which client statement indicates teaching was effective?

1. "I will consume high-fiber foods to help with passage of the worms."
2. "I will make sure to chew the tablet."
3. "I will avoid aspirin while I am on this medication."
4. "I must have three negative stool cultures before I am cured."

Answer: 2

Explanation:

1. Diet will not impact the passage of worms.
2. The drug is most effective when chewed.
3. There is no interaction between mebendazole and aspirin.
4. Stool cultures are not necessary.

Page Ref: 532

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 36-10 Identify drugs used in the pharmacotherapy of helminthic infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

10) A female client is prescribed nystatin. Which data should the nurse review prior to administering the medication to the client?

1. Positive pregnancy
2. Last menstrual period
3. Type of contraception used
4. Height and weight

Answer: 1

Explanation:

1. It is not known if nystatin has adverse effects during pregnancy or lactation.
2. The client's last menstrual period should be assessed, but this is not necessarily an indicator of pregnancy.
3. Nystatin does not interfere with contraception.
4. The client's height and weight are not significant.

Page Ref: 527

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-7 Identify drugs used to treat superficial fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

11) A client with tuberculosis is prescribed isoniazid (INH). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Return to the clinic in 1 month for laboratory work.
2. Report any numbness in your hands or feet.
3. Take your prescription with food.
4. Avoid the use of alcohol.
5. Avoid aged cheeses and smoked meats.

Answer: 1, 2, 4, 5

Explanation:

1. Isoniazid is nephrotoxic. Liver enzyme tests are usually performed monthly during therapy to identify early hepatotoxicity.
2. Isoniazid is neurotoxic and can cause paresthesia. This adverse effect should be reported to the healthcare provider.
3. Food interferes with the absorption of isoniazid. The prescription should be taken 1 hour before or 2 hours after meals.
4. Isoniazid is hepatotoxic, so the client should be instructed to avoid the use of alcohol.
5. The client should be advised to avoid foods with tyramine such as aged cheeses and smoked meats. Tyramine may increase the risk of isoniazid toxicity.

Page Ref: 520

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-1 Explain how the pharmacotherapy of tuberculosis differs from that of other bacterial infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

12) A client with a fungal infection of the toenails prescribed oral terbinafine (Lamisil) asks how a pill will heal the nail infection. Which response should the nurse make?

1. "The prescription accumulates in the nail beds and remains there for many months."
2. "The prescription will be combined with a topical agent to increase effectiveness."
3. "The prescription works by destroying toxins excreted by the fungi in your nails."
4. "The prescription works by destroying circulating fungi in your blood."

Answer: 1

Explanation:

1. Terbinafine (Lamisil) is an oral agent that has the advantage of accumulating in nail beds, allowing it to remain active many months after therapy is discontinued.
2. Terbinafine (Lamisil) does not need to be combined with a topical agent.
3. Terbinafine (Lamisil) does not destroy toxins excreted by fungi.
4. Terbinafine (Lamisil) does not destroy circulating fungi in the blood.

Page Ref: 526

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 36-7 Identify drugs used to treat superficial fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

13) A client receiving an oral nystatin suspension for a candida infection cannot continue to "swish and swallow" because of nausea. Which response should the nurse make?

1. "I will ask your healthcare provider if a pill form can be substituted."
2. "Try having a carbonated drink after you swallow the prescription."
3. "You can swish the prescription around and then spit it out."
4. "I will request an antiemetic to be prescribed for you."

Answer: 4

Explanation:

1. A pill form of nystatin is used to treat candidiasis of the gastrointestinal (GI) tract.
2. A carbonated beverage may contribute further to nausea.
3. A candida infection can travel down the GI tract. It is beneficial to swallow the prescription to prevent the infection from spreading into the GI tract.
4. An antiemetic may be required if the nausea is severe.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 36-7 Identify drugs used to treat superficial fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

14) The nurse is preparing teaching for a client prescribed metronidazole (Flagyl). Which laboratory test should the nurse anticipate be affected by the medication?

1. ALT/AST
2. BUN/Creatinine
3. CBC
4. Electrolytes

Answer: 3

Explanation:

1. Metronidazole does not affect ALT/AST.
2. Metronidazole does not affect the BUN or creatinine.
3. Metronidazole can cause bone marrow suppression. A CBC should be monitored.
4. Metronidazole does not affect the electrolytes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 36-9 Identify drugs used in the pharmacotherapy of nonmalarial protozoa infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

15) The nurse is preparing a teaching tool about fungal infections. Which infection should the nurse include because it is the most common type of opportunistic fungal infection?

1. *Cryptococcus neoformans*
2. *Candida albicans*
3. *Pneumocystis jiroveci*
4. *Microsporium* species

Answer: 2

Explanation:

1. *C. neoformans* is a systemic opportunistic infection.
2. *C. albicans* is the most common opportunistic fungal infection.
3. *P. jiroveci* is a systemic opportunistic infection responsible for pneumocystis pneumonia.
4. *Microsporium* species is a superficial fungal infection associated with tinea capitis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 36-2 Describe characteristics of pathogenic fungi and how mycoses differ from bacterial infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

16) A client is prescribed an azole antifungal medication. In which way should the nurse explain the mechanism of action for this medication?

1. Interferes with the synthesis of ergosterol
2. Has a cytotoxic effect on the fungus
3. Interferes with DNA replication
4. Impairs fungal cellular growth

Answer: 1

Explanation:

1. Azole antifungals interfere with the synthesis of ergosterol.
2. Azole antifungals do not have a cytotoxic effect on the fungus.
3. Azole antifungals do not interfere with DNA replication.
4. Azole antifungals do not interfere with RNA replication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 36-6 Explain why the azoles are the most common class of medications for treating mycoses.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

17) A client is prescribed mebendazole (Emvem). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. It effectively treats adult parasites.
2. High concentrations of the drug remain in the intestine.
3. It generally requires a few days of therapy.
4. Treatment of the larva will require a different prescription.
5. The prescription should be taken with a high-fat meal.

Answer: 1, 2, 3, 5

Explanation:

1. Mebendazole effectively treats adult parasites.
2. High concentrations of mebendazole remain in the intestine where it kills the pathogens.
3. Therapy with mebendazole is 1 day for pinworms and 3 days for other parasites.
4. Mebendazole effectively treats the larva.
5. Mebendazole should be taken with a high-fat meal to increase the absorption of the drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-10 Identify drugs used in the pharmacotherapy of helminthic infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

18) The nurse is reviewing information about antifungal medication. Which class of antifungals should the nurse identify as being the largest and most versatile group?

1. Polyene
2. Azole
3. Anthelmintic
4. Mycolic acid inhibitor

Answer: 2

Explanation:

1. The polyene class of antifungals is not the largest and most versatile group.
2. The azole class of antifungals is the largest and most versatile group. These drugs have a broad spectrum and are used to treat nearly any systemic or superficial fungal infection.
3. Anthelmintics are not used to treat fungal infections.
4. Mycolic acid inhibitors are not used to treat fungal infections.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-6 Explain why the azoles are the most common class of medications for treating mycoses.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

19) A client is diagnosed with trichomoniasis. Which medication should the nurse anticipate being prescribed for this client?

1. Praziquantel (Biltricide)
2. Chloroquine (Aralen)
3. Nitazoxanide (Alinia)
4. Metronidazole (Flagyl)

Answer: 4

Explanation:

1. Praziquantel is an anthelmintic effective against flatworms.
2. Chloroquine is an antimalarial drug.
3. Nitazoxanide is used to treat diarrhea caused by giardiasis in children.
4. Metronidazole is the drug of choice for both giardiasis and trichomoniasis due to *Trichomonas vaginalis*.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 36-10 Identify drugs used in the pharmacotherapy of helminthic infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

20) A client has been receiving nitazoxanide (Alinia). Which question should the nurse ask the client?

1. "Has your partner been treated?"
2. "Do you still have mosquito bites?"
3. "Do you have access to clean water?"
4. "Are you still cleaning the cat litter box?"

Answer: 3

Explanation:

1. Nitazoxanide is not used to treat sexually transmitted infections.
2. Mosquitos can transmit malaria. Malaria is not treated with nitazoxanide.
3. Nitazoxanide is used to treat diseases that occur from ingesting fecal contaminated water.
4. Cat feces can transmit toxoplasmosis. Toxoplasmosis is not treated with nitazoxanide.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-9 Identify drugs used in the pharmacotherapy of nonmalarial protozoa infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

21) A client is receiving amphotericin B (Fungizone). Which symptom should the nurse instruct the client to report?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fever
2. Hearing loss
3. Dizziness
4. Constipation
5. Heart palpitations

Answer: 1, 2, 3, 5

Explanation:

1. Many clients develop fever and chills at the beginning of therapy.
2. Amphotericin B can cause ototoxicity.
3. Vertigo can occur due to ototoxicity, which may occur with amphotericin B.
4. Constipation is not associated with amphotericin B.
5. Amphotericin B can cause dysrhythmias.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-5 Identify drugs used to treat systemic fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

22) A client is prescribed metronidazole (Flagyl). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Do not drink alcohol with this medication.
2. Do not take this medication with milk or milk products.
3. Drink at least 3000 mL of fluid per day with this medication.
4. Do not become pregnant while taking this medication.
5. You may experience a metallic taste while on this medication.

Answer: 1, 4, 5

Explanation:

1. The interaction of metronidazole and alcohol causes severe nausea, vomiting, and abdominal pain.
2. There is no interaction between this medication and milk or milk products.
3. Increasing fluids is not necessary.
4. This medication is contraindicated during the first trimester of pregnancy.
5. Dryness of the mouth and an unpleasant metallic taste may be experienced.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 36-9 Identify drugs used in the pharmacotherapy of nonmalarial protozoa infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

23) The nurse instructs a client about a topical antifungal. Which client statement indicates further teaching is needed?

1. "I will allow the area to dry after applying the prescription."
2. "I will make sure my clothing is loose over the area."
3. "I will protect the area with an occlusive dressing."
4. "I will not scrub the area where the prescription will be applied."

Answer: 3

Explanation:

1. The area should be allowed to dry prior to covering it with loose-fitting clothes.
2. Loose clothing should be worn over the area of application.
3. The client should not cover the area with an occlusive dressing.
4. The area should be gently washed, not scrubbed.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 36-11 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for tubercular, fungal, protozoan, and helminthic infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

24) A client is taking medication to treat tuberculosis. Which finding indicates to the nurse that the medication is in the therapeutic range?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Reduced cough
2. Absence of nausea
3. Absence of fever
4. Lack of pain
5. Reduction in sputum

Answer: 1, 3, 5

Explanation:

1. Therapeutic effects include a reduced cough.
2. Nausea is not associated with tuberculosis.
3. Therapeutic effects include absence of fever.
4. Pain is not associated with tuberculosis.
5. Therapeutic effects include a reduction in sputum.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 36-1 Explain how the pharmacotherapy of tuberculosis differs from that of other bacterial infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

25) The nurse is reviewing superficial fungal infection. Which physical area should the nurse expect the infection to affect?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Skin
2. Lungs
3. Nails
4. GI tract
5. Vagina

Answer: 1, 3, 5

Explanation:

1. Superficial fungal infections affect the skin.
2. A fungal infection of the lungs is considered systemic.
3. Superficial fungal infections affect the nails.
4. A systemic fungal infection affects the gastrointestinal tract.
5. A fungal infection of the vagina is a superficial fungal infection.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Integrity

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-7 Identify drugs used to treat superficial fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

26) A client is prescribed rifampin (Rifadin). Which information should the nurse include when teaching the client about this medication?

1. "Your urine may turn reddish-orange."
2. "Your skin may turn yellowish-orange."
3. "Your stools may turn black."
4. "Your sweat may turn yellow."

Answer: 1

Explanation:

1. Rifampin may turn body fluids a reddish orange.
2. Rifampin does not cause the skin to turn yellowish orange.
3. Rifampin does not cause stools to turn black.
4. Rifampin does not cause sweat to turn yellow.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-1 Explain how the pharmacotherapy of tuberculosis differs from that of other bacterial infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

27) The nurse is caring for a client suspected of an overdose of amphotericin B (Fungizone). For which condition should the nurse observe the client?

1. Cardiorespiratory arrest
2. Acute renal failure
3. Hepatotoxicity
4. Stevens-Johnson syndrome

Answer: 1

Explanation:

1. An overdose of amphotericin B may result in cardiorespiratory arrest.
2. Amphotericin B is a nephrotoxic drug, but the priority is to monitor the client for cardiorespiratory arrest.
3. Hepatotoxicity can occur, but the priority is to monitor the client for cardiorespiratory arrest.
4. Stevens-Johnson syndrome is not associated with an overdose of amphotericin B.

Page Ref: 524

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 36-5 Identify drugs used to treat systemic fungal infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

28) A client is diagnosed with amebiasis. Which information should the nurse include when teaching about this condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The primary symptom is diarrhea."
2. "Severe muscle cramping is a common symptom."
3. "Amebiasis may damage the liver."
4. "Brain abscesses are the typical fatal event."
5. "Amebiasis is contracted through contact with contaminated water."

Answer: 1, 3, 5

Explanation:

1. Diarrhea can be very severe.
2. Muscle cramping is not a symptom.
3. Amebiasis can cause cysts in the liver, damaging liver tissue.
4. Amebiasis rarely travels to the brain.
5. The primary source of amebiasis is contaminated water.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 36-9 Identify drugs used in the pharmacotherapy of nonmalarial protozoa infections.

MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

29) A child is diagnosed with ascariasis. Which information should the nurse include when teaching the parent about the condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Your child has pinworms."
2. "Children get worms from playing in infected soil."
3. "Treatment will consist of medication for 3 days."
4. "No treatment will be necessary after I give this one pill."
5. "No treatment is necessary; the worms will die on their own."

Answer: 2, 3

Explanation:

1. Ascariasis is infestation with roundworms.
2. Worms live in infected soil.
3. Ascariasis is treated with oral mebendazole (Vermox) for 3 days.
4. Pinworm infestation is not treated with a single dose.
5. Treatment is required.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 36-10 Identify drugs used in the pharmacotherapy of helminthic infections. MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

30) A parent of a child with pinworms is concerned about the medication because it may be toxic. Which information should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Very little of the drug is absorbed into the system."
2. "Severe infestations can result in malabsorption."
3. "It is critical that you give this medication."
4. "Many types of pinworms are resistant to treatment."
5. "The child may be at an increased risk for immunosuppression."

Answer: 1, 2

Explanation:

1. It may be helpful for the parents to understand that very little of these medications are absorbed systemically. The parasites are killed in the intestines without affecting the client.
2. Severe infestations may alter the function of the bowel. The parents need to understand the disorder in order to make an educated decision about treatment.
3. Using a word like *critical* is inappropriate and puts unnecessary pressure on the parents.
4. To date, resistance has not been a problem.
5. The medication does not place the child at risk for immunosuppression.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 36-10 Identify drugs used in the pharmacotherapy of helminthic infections. MNL Learning Outcome: Examine drugs used for tubercular, fungal, protozoan, and helminthic infections.

### ***Pharmacology for Nurses, 7e (Adams)*** **Chapter 37 Drugs for Viral Infections**

1) The nurse instructs a client about viruses. Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Viruses are nonliving particles."
2. "The structure of viruses is complex."
3. "Viruses can infect plants as well as animals."
4. "A virion is a mature virus."
5. "Viruses are intracellular parasites."

Answer: 1, 3, 4, 5

Explanation:

1. Viruses are nonliving agents that infect bacteria, plants, and animals.
2. The structure of viruses is quite primitive compared with the simplest cell.
3. Viruses can infect plants as well as animals.
4. A mature infective particle is called a virion.

5. Viruses must use intracellular machinery to replicate, so they are called intracellular parasites.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 37-1 Describe the defining characteristics of viruses.

MNL Learning Outcome: Examine drugs used for viral infections.

2) A client asks why there are not better drugs for HIV infection when so much money is spent on research. Which response should the nurse make?

1. "Antiviral drugs are difficult to create."
2. "Developing new drugs is difficult because the virus mutates so readily."
3. "Developing new drugs is difficult because of the perception that AIDS is no longer a problem."
4. "Developing new drugs is difficult because we still do not understand the virus."

Answer: 2

Explanation:

1. Over 20 new antiretroviral drugs have been developed.
2. Antiviral pharmacotherapy can be extremely challenging because of the rapid mutation rate of viruses, which can quickly render drugs ineffective.
3. AIDS is still a worldwide challenge.
4. After more than 30 years of research, the virus is mostly understood.

Page Ref: 538

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-4 Identify recommended HIV medications used to achieve treatment as prevention and preexposure prophylaxis.

MNL Learning Outcome: Examine drugs used for viral infections.

3) A client is taking acyclovir (Zovirax). For which adverse effect should the nurse monitor this client?

1. Auditory and visual hallucinations
2. Increased serum creatinine
3. Respiratory distress
4. Thrombocytopenia

Answer: 2

Explanation:

1. Auditory and visual hallucinations are not adverse effects of acyclovir (Zovirax).
2. Acyclovir (Zovirax) is nephrotoxic, so serum creatinine should be monitored.
3. Respiratory distress is not an adverse effect of acyclovir (Zovirax).
4. Bone marrow suppression is not an adverse effect of acyclovir (Zovirax).

Page Ref: 549

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 37-10 Identify medications used to treat herpesvirus infections.

MNL Learning Outcome: Examine drugs used for viral infections.

4) A client is taking acyclovir (Zovirax) for a herpes infection. Which outcome should the nurse

anticipate for the client?

1. Absence of a recurrence of infection in the affected area.
2. Identification of the names of the client's sexual contacts in the past month.
3. Report of decreased pain using the approved pain scale.
4. Report of a decrease in the number of lesions in the affected area.

Answer: 3

Explanation:

1. It is not possible to prevent recurrence.
2. It is not necessary to provide the names of sexual contacts, and this is not related to acyclovir (Zovirax).
3. Pain is a major problem associated with this infection; the best outcome is decreased pain.
4. Decrease in lesions is not an outcome goal of treatment with acyclovir (Zovirax).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 37-10 Identify medications used to treat herpesvirus infections.

MNL Learning Outcome: Examine drugs used for viral infections.

5) The nurse instructs a client with HIV prescribed zidovudine (Retrovir). Which client statement indicates further teaching is required?

1. "Zidovudine (Retrovir) will need to be stopped if bone marrow depression occurs."
2. "Zidovudine (Retrovir) will slow the disease, but not cure it."
3. "Zidovudine (Retrovir) prevents spread of the virus through sexual contact."
4. "Zidovudine (Retrovir) therapy frequently results in the development of anemia."

Answer: 3

Explanation:

1. Zidovudine treatment will be stopped if bone marrow depression occurs to allow the bone marrow time to recover.
2. The drug only slows the disease; it will not cure it.
3. Zidovudine will slow the progression of the disease; it will not prevent its transmission.
4. Treatment with zidovudine frequently results in anemia.

Page Ref: 543

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 37-5 Describe the mechanism of action of reverse transcriptase inhibitors and identify examples of drugs in this class.

MNL Learning Outcome: Examine drugs used for viral infections.

6) The nurse is caring for a client with HIV. Which laboratory test should the nurse use to evaluate

the efficacy of the treatment with antiviral prescriptions?

1. CD4 T-cell count
2. Viral load
3. T4 lymphocyte count
4. Viral cultures

Answer: 2

Explanation:

1. The CD4 T-cell count is an indicator of immune function because it shows the actual degree of immune system damage caused by the virus.
2. The viral load is the most important indicator of how the virus is replicating in the body.
3. The viral load, not a T4 lymphocyte count, is the best test.
4. Viral cultures are not used to evaluate the efficacy of treatment with antiviral prescriptions.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

7) The nurse is caring for a client with AIDS. For which reason should the nurse anticipate nonadherence to the prescribed treatment?

1. The necessity of having to take multiple medications throughout the day
2. A lack of understanding of the reason for taking the medications
3. The weight gain associated with the medications
4. The difficulty with availability of medications to treat AIDS

Answer: 1

Explanation:

1. Multiple medications are required throughout the day. The higher the number of medications to be taken daily, the higher is the noncompliance rate.
2. A lack of understanding could be a factor, but it is the schedule of taking multiple drugs that leads to noncompliance.
3. Some medications may cause weight gain, but this is not a primary reason for noncompliance.
4. Medications are generally available for clients with AIDS today.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 37-4 Identify recommended HIV medications used to achieve treatment as prevention and preexposure prophylaxis.

MNL Learning Outcome: Examine drugs used for viral infections.

8) A client has just been prescribed highly active antiretroviral therapy (HAART) for the treatment

of acquired immune deficiency (AIDS). Which teaching point is a priority for this client?

1. Medications must be taken for 3 years after viral load is not measurable.
2. The goal of HAART is to reduce plasma human immunodeficiency virus (HIV) ribonucleic acid (RNA) to the lowest possible level.
3. Taking medications as scheduled is vital to successful treatment.
4. Know which medications target which phases of the HIV replication cycle.

Answer: 3

Explanation:

1. Medications must be continued for the lifetime of the client.
2. The goal of HAART is to reduce plasma HIV, but this is not as important as medication compliance.
3. Taking medicines as scheduled is vital to maintain adequate treatment and prevent resistance to the medication.
4. The client may be interested in knowing which medications target which phases of the HIV RNA reproduction cycle, but this is not as important as medication compliance.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

9) A client with AIDS asks why so many medications are needed. Which response should the nurse provide to the client?

1. "Multiple drugs are given to decrease the possibility of the virus developing resistance to the medications."
2. "Research has shown single medications to be ineffective."
3. "Because the earlier we start multiple medications, the better the outcome."
4. "Multiple drugs provide you with the most effective treatment for your illness."

Answer: 1

Explanation:

1. Decreasing the possibility of resistance is key; single drugs can be effective, but viral resistance is a problem.
2. Multiple medications will provide the best treatment, but this is not as good an answer as avoiding drug resistance.
3. It is debatable if multiple drugs should be used early in the course of the disease.
4. Drug resistance is the major reason for a client prescribed multiple medications.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

10) The nurse instructs a client with AIDS about prescribed antiviral treatment. Which client statement indicates teaching was effective?

1. "I will need to limit my travel to avoid people with other infections."
2. "I will need to be on a high-calorie diet to enhance the effect of the medication."
3. "I will still need to take precautions to avoid spreading the virus to others."
4. "I will not be able to continue working at my high-stress job anymore."

Answer: 3

Explanation:

1. There is no need to limit travel at this point.
2. A well-balanced diet is the best diet for a client with AIDS.
3. Precautions are still necessary to avoid spreading the virus to others.
4. A high-stress job is not ideal, but at this point the client doesn't need to stop working.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation;

Teaching/Learning

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

11) A pregnant client with acquired immune deficiency (AIDS) asks if the baby will die of the disease. Which response should the nurse make?

1. "There are special tests that we can do to see if your unborn baby is positive."
2. "AIDS can be unpredictable in the newborn."
3. "Drug therapy can help prevent your child from contracting the virus."
4. "There are drugs that can be given after birth to reverse the disease process."

Answer: 3

Explanation:

1. There is no prenatal test that can diagnose an unborn baby for AIDS.
2. Telling the parent that AIDS is unpredictable in a newborn is not a therapeutic response.
3. Should pregnancy occur in a woman living with human immunodeficiency virus (HIV), the therapeutic outcomes focus on aggressively lowering the viral load in the mother while protecting the transmission of HIV to the unborn child. This has been shown to reduce the risk of HIV transmission to the fetus. Pharmacotherapy of the pregnant woman living with HIV is very similar to that of a nonpregnant woman. All regimens are individualized to the client and adjusted on the basis of resistance testing.
4. There are no drugs to reverse the disease process of AIDS.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-8 Explain how the perinatal transmission of HIV can be prevented through pharmacotherapy.

MNL Learning Outcome: Examine drugs used for viral infections.

12) The nurse notifies the supervisor after accidentally being stuck with a needle while starting an intravenous (IV) line on a client with acquired immune deficiency (AIDS). Which response should the supervisor make to the nurse to decrease anxiety?

1. "If you are started on medications soon, it will decrease the severity of the disease."
2. "Workers' compensation will cover the cost of your illness and medications."
3. "Did you use the hospital protocols for starting IV lines on a client with AIDS?"
4. "Fortunately, the chances of you contracting HIV after the stick are very small."

Answer: 4

Explanation:

1. Telling the nurse that medication treatment will decrease the severity of the disease is inappropriate and will not reduce anxiety.
2. Workers' compensation will cover the cost, but this response will not help reduce the nurse's anxiety.
3. Asking the nurse if protocols were followed is not therapeutic and will most likely increase anxiety.
4. The risk of contracting human immunodeficiency virus through accidental exposure is very small, and transmission can be prevented.

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Cognitive Level: Applying

Client Need/Sub: Safe and Effective Care Environment: Safety and Infection Control

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-4 Identify recommended HIV medications used to achieve treatment as prevention and preexposure prophylaxis.

MNL Learning Outcome: Examine drugs used for viral infections.

13) A client is taking efavirenz (Sustiva). For which adverse effect should the nurse monitor this client?

1. Cardiac arrest
2. Rash
3. Bone marrow suppression
4. Seizures

Answer: 2

Explanation:

1. Cardiac arrest is not an expected adverse effect of efavirenz.
2. A serious adverse effect of efavirenz is Stevens-Johnson rash, which is characterized by severe blistering or desquamation and can be life threatening.
3. Bone marrow suppression is not an adverse effect of efavirenz.
4. Seizures are not an adverse effect of efavirenz.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 37-7 Describe the mechanisms of action of integrase strand inhibitors, entry inhibitors, and attachment inhibitors and identify examples of drugs in these classes.

MNL Learning Outcome: Examine drugs used for viral infections.

14) The nurse is creating a teaching tool about viruses. Which information about the major characteristic of viruses should be included?

1. Extracellular parasites
2. Intracellular parasites
3. Extracellular bacterial in nature
4. Intracellular bacterial in nature

Answer: 2

Explanation:

1. Viruses are not extracellular parasites.
2. Viruses are intracellular parasites. They must be inside a host cell to cause infection.
3. Viruses are not bacteria.
4. Viruses are not bacteria.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 37-1 Describe the defining characteristics of viruses.

MNL Learning Outcome: Examine drugs used for viral infections.

15) The nurse is planning care for a client with HIV. For which reason should the nurse expect

pharmacotherapy to be prescribed as treatment for the condition?

1. Eliminate viral load
2. Relieve symptoms for a longer period of time
3. Decrease general transmission
4. Stop the virus from replicating

Answer: 2

Explanation:

1. The viral load cannot be eliminated.
2. The primary purpose of general pharmacotherapy is to relieve the symptoms for a longer period of time.
3. Pharmacotherapy cannot decrease the transmission of the virus in all populations.
4. To stop the virus from replicating is to imply the disease can be cured.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

16) A client is prescribed ganciclovir (Zirgan). Which information should the nurse include when teaching the client about this medication?

1. "This drug will need to be applied multiple times a day."
2. "You can expect some burning and stinging after the instillation of the medication."
3. "You may experience sensitivity to light after the use of the medication."
4. "You may notice your eyes becoming swollen with the use of this medication."

Answer: 1

Explanation:

1. The client can expect to administer the medication multiple times a day.
2. Stinging and burning are adverse effects of the medication.
3. Photophobia is an adverse effect of the medication.
4. Edema around the eyes is an adverse effect of the medication.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 37-10 Identify medications used to treat herpesvirus infections.

MNL Learning Outcome: Examine drugs used for viral infections.

17) The nurse is caring for a client with HIV. Which laboratory test should the nurse monitor to evaluate the degree of damage to the immune system?

1. Platelets
2. Liver function studies
3. CD4 T-cell count
4. Complete blood count

Answer: 3

Explanation:

1. Platelet levels are not used to evaluate the effects of HIV on the immune system.
2. Liver function studies are not used to evaluate the damage to the immune system.
3. The CD4 T-cell count is used to evaluate the degree of damage to the immune system caused by HIV.
4. Complete blood count is not used to evaluate the effects of HIV on the immune system.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 37-2 Identify the steps of HIV replication inside a host cell.

MNL Learning Outcome: Examine drugs used for viral infections.

18) A client is taking dolutegravir (DTG). Which question should the nurse ask to determine if the client is experiencing an adverse effect?

1. "How have you been sleeping?"
2. "Are you having any trouble with constipation?"
3. "Are you experiencing any dizziness in the morning?"
4. "Have you had any difficulty urinating?"

Answer: 1

Explanation:

1. Insomnia is a common adverse effect of dolutegravir.
2. Constipation is not an adverse effect of dolutegravir.
3. Dizziness is not an adverse effect of dolutegravir.
4. Difficulty urinating is not an adverse effect of dolutegravir.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 37-7 Describe the mechanisms of action of integrase strand inhibitors, entry inhibitors, and attachment inhibitors and identify examples of drugs in these classes.

MNL Learning Outcome: Examine drugs used for viral infections.

19) A client is diagnosed with herpes. For which reason should the nurse expect medications to be

prescribed for this virus?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Decreases the frequency of herpes episodes
2. Decreases the risk of secondary infections
3. Inactivates the herpes virus
4. Diminishes the intensity of the acute disease
5. Decreases the risk of spreading the infection

Answer: 1, 4

Explanation:

1. The pharmacotherapy for herpes viruses decreases the frequency of herpes episodes.
2. The pharmacotherapy for herpes viruses does not decrease the risk of secondary infections.
3. The pharmacotherapy for herpes viruses does not inactivate the herpes virus.
4. The pharmacotherapy for herpes viruses diminishes the intensity of the acute disease.
5. The pharmacotherapy for herpes viruses does not decrease the risk of spreading the infection.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 37-10 Identify medications used to treat herpesvirus infections.

MNL Learning Outcome: Examine drugs used for viral infections.

20) A client is prescribed an antiretroviral agent. Which information should the nurse include when teaching the client about this medication?

1. Monitor your blood pressure daily.
2. Weigh yourself daily.
3. Use barrier protection when genital lesions are present.
4. Practice good handwashing.

Answer: 4

Explanation:

1. Monitoring blood pressure daily is not necessary.
2. Daily weights are not necessary.
3. The client should be instructed to abstain from any sexual contact if genital lesions are present.
4. Handwashing is a technique the client and family members can use to control infection.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 37-3 Explain the general therapeutic goals for treatment of HIV infection.

MNL Learning Outcome: Examine drugs used for viral infections.

21) A client is taking zidovudine (Retrovir). For which adverse reaction should the nurse monitor the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fatigue and generalized weakness
2. New-onset headache
3. Constipation
4. Edema
5. Liver palpable on physical examination

Answer: 1, 2, 5

Explanation:

1. Fatigue and weakness are experienced by many clients taking zidovudine.
2. Headache will occur in the majority of clients taking this medication.
3. Diarrhea is a more expected adverse reaction.
4. Edema is not an expected adverse reaction.
5. Hepatomegaly can occur and may require dosage adjustments or discontinuation of this drug.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 37-7 Describe the mechanisms of action of integrase strand inhibitors, entry inhibitors, and attachment inhibitors and identify examples of drugs in these classes.

MNL Learning Outcome: Examine drugs used for viral infections.

22) A client is given a prescription for oseltamivir (Tamiflu). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. This medication is administered via inhalation.
2. This medication should be taken immediately.
3. This medication will keep you from getting the flu.
4. This is an expensive medication.
5. This medication will be helpful if you have influenza or a cold.

Answer: 2, 4

Explanation:

1. Oseltamivir is administered orally.
2. The effects of oseltamivir are best if it is started within 48 hours of onset of symptoms.
3. This medication reduces the length of illness but does not prevent the illness.
4. Oseltamivir is expensive.
5. This antiviral is not effective against the common cold virus.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 37-11 Identify medications used to treat influenza infections.

MNL Learning Outcome: Examine drugs used for viral infections.

23) A client is diagnosed with influenza. Which information should the nurse include when teaching about pharmacotherapy for this condition?

1. Antiviral medications can increase resistance to other strains of the flu.
2. Antiviral medications should be administered within 72 hours of flu symptoms occurring.
3. Antiviral medications decrease the risk of transmission of the flu.
4. Antiviral medications can be used to treat active influenza infections.

Answer: 4

Explanation:

1. Antivirals may be used to prevent influenza or decrease the severity of acute symptoms, but once administered are not intended to increase resistance to other strains of the flu.
2. Antiviral medications should be administered within 48 hours of flu symptoms occurring.
3. Antiviral medications do not decrease the risk of transmission of the flu.
4. Antiviral medications can be used to treat active influenza infections.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning  
Learning Outcome: 37-11 Identify medications used to treat influenza infections.

MNL Learning Outcome: Examine drugs used for viral infections.

24) A client is prescribed hepatitis A immunoglobulin after being exposed to hepatitis A. Which information should the nurse include when teaching about this medication?

1. You will need another booster in 6 months.
2. If you plan on traveling out of the country, you will need another injection.
3. This injection may keep you from contracting hepatitis A.
4. You will not need to worry about contracting hepatitis A for the next 5 to 8 years.

Answer: 3

Explanation:

1. Boosters are given for immunizations, not treatments for documented exposure.
2. The best treatment for hepatitis A is a vaccination followed up with a booster to facilitate active immunity. The hepatitis A immunoglobulin is used for prophylactic treatment after exposure and will provide passive protection for 3 months.
3. Immunoglobulins are about 85% effective at preventing HAV.
4. The HAV vaccine has a 5- to 8-year window of effectiveness.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

25) The nurse is preparing a teaching tool about hepatitis B. Which individual should the nurse include to receive a hepatitis B vaccine?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. All newborn infants
2. Clients with HIV
3. International travelers
4. People who are incarcerated
5. People with alcoholism

Answer: 1, 2, 4

Explanation:

1. All newborn infants should receive their first hepatitis B vaccine.
2. Client's with HIV should receive the hepatitis B vaccine.
3. Only international travelers to countries with high or intermediate levels of endemic HBV infection should receive the hepatitis B vaccine.
4. People who are incarcerated should receive the hepatitis B vaccine.
5. People with alcoholism are not necessarily encouraged to receive the hepatitis B vaccine.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

26) A client is recovering from hepatitis B. Which response should the nurse make when asked if the client is immune from the infection?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You are now immune to getting hepatitis B again."
2. "Chronic hepatitis B may take years to develop."
3. "If your immune system weakens, you can acquire a new case of hepatitis B."
4. "Annual hepatitis immunoglobulin will prevent you from acquiring the illness again."
5. "One dose of interferon will boost your immunity to hepatitis B."

Answer: 1, 2

Explanation:

1. The patient is immune to a new case of hepatitis B.
2. Symptoms of chronic HBV may develop as long as 10 years following exposure.
3. There is no need to get a hepatitis B vaccine.
4. There is no need to get hepatitis immunoglobulins.
5. There is no need to get a dose of interferon.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

27) A client is diagnosed with hepatitis C. Which response should the nurse make when asked if the client is at risk for developing chronic hepatitis C?

1. "The risk of you developing chronic hepatitis C is based on your immunity."
2. "The risk of you developing chronic hepatitis C is about 70%."
3. "The risk of you developing chronic hepatitis C is about 40%."
4. "The risk of you developing chronic hepatitis C is based on your compliance with the initial treatment."

Answer: 2

Explanation:

1. The development of chronic hepatitis C is not based on the client's immunity.
2. About 70% of clients infected with HCV proceed to chronic hepatitis.
3. About 70% of clients infected with HCV proceed to chronic hepatitis.
4. The risk of developing chronic hepatitis C is not based on the client's compliance with the initial treatment.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

28) A client suspected of having hepatitis C asks why cultures are being obtained when hepatitis is a virus. Which response should the nurse make to the client?

1. "Obtaining a culture will rule out a bacterial infection."
2. "There is a strain of hepatitis C that is a combination of a bacteria and virus."
3. "Hepatitis C viruses can be cultured."
4. "Cultures are needed to rule out a bacterial infection."

Answer: 3

Explanation:

1. A culture is obtained to identify the hepatitis C virus.
2. Hepatitis C is a virus, not a combination of a virus and bacteria.
3. Viral cultures can be obtained to diagnose hepatitis C.
4. The cultures obtained are viral cultures.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

29) A new nurse is refusing the hepatitis B vaccination. Which response should the manager make to the nurse?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Working in a hospital puts you at a higher risk for being exposed to hepatitis B."
2. "You can be protected from hepatitis B with one immunization."
3. "This immunization is administered to children before they are 2 years old."
4. "If you don't get this vaccine, you must wear gloves at all times."
5. "The vaccine is 80 to 90% effective in preventing hepatitis B."

Answer: 1, 3, 5

Explanation:

1. Working in a hospital increases the risk of being exposed to blood and body fluids, which is a primary means of transmission.
2. Hepatitis B injections are administered as a series of three injections.
3. Childhood immunization for hepatitis B is completed by age 18 months.
4. Hepatitis B is transmitted by other ways besides hand contamination.
5. The hepatitis B vaccine is about 80 to 90% effective.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-12 Identify medications used to prevent and treat hepatitis infections.

MNL Learning Outcome: Examine drugs used for viral infections.

30) A pregnant client with HIV receiving zidovudine asks why the newborn will not be tested for HIV immediately after birth. Which response should the nurse provide?

1. "Since you are taking zidovudine, a test at birth will not be accurate."
2. "The tests are much more accurate when your baby gets to be 1 week old."
3. "Testing will continue until your baby is 1 year old."
4. "The most sensitive test is the one done at 6 months of age."

Answer: 1

Explanation:

1. Testing can be done at birth if the mother is not taking zidovudine. If she is taking the medication, the test is not accurate.
2. A definitive diagnosis of HIV infection in an infant can be made by age 1 to 2 months through the use of virologic testing.
3. Infants are often retested at ages 6 and 12 months, but this response does not address the client's concern.
4. Testing at 6 months will be a repeated test; however, response does not address the client's concern.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 37-8 Explain how the perinatal transmission of HIV can be prevented through pharmacotherapy.

MNL Learning Outcome: Examine drugs used for viral infections.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 38 Drugs for Neoplasia**

1) A client with cancer asks how the disease occurs. Which response should the nurse make to the client?

1. "Cancer is genetic; you inherited the predisposition for cancer."
2. "Cancer cells are the body's cells that have lost the ability to control their growth."
3. "Cancer is caused primarily by viruses in the environment."
4. "Cigarette smoking and secondhand smoke are the primary causes of cancer."

Answer: 2

Explanation:

1. Some cancers are genetic, but this is not the best answer.
2. Cancer is thought to result from damage to the genes controlling cell growth.
3. Viruses are associated with certain human cancers.
4. Cigarette smoking and secondhand smoke are carcinogens that can lead to the development of cancer, but this is not the best answer.

Page Ref: 558

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.  
| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 38-2 Identify factors associated with an increased risk of cancer.  
MNL Learning Outcome: Examine drugs used for neoplasia.

2) The nurse is asked to explain the causes of cancer. Which information should the nurse include?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Some cancers have a strong genetic component."
2. "Cancer can result from tissue trauma."
3. "Cancers have a very strong environmental component."
4. "Cancer can result from increased levels of stress."
5. "Cancer can result from damaged tumor suppressor genes."

Answer: 1, 3, 5

Explanation:

1. Some cancers have a strong genetic component.
2. There is no evidence to support that cancer occurs as a result of tissue trauma.
3. Cancers have a very strong environmental component.
4. There is no evidence to support that cancer occurs as a result of increased levels of stress.
5. Cancer can result from damaged tumor suppressor genes.

Page Ref: 559

Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-2 Identify factors associated with an increased risk of cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

3) A client who is newly diagnosed with cancer asks how the condition is treated. Which therapeutic intervention should the nurse include in response?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Surgery
2. Chemotherapy
3. Nutrition therapy
4. Alternative medicine
5. Radiation therapy

Answer: 1, 2, 5

Explanation:

1. Surgery continues to be a primary treatment for cancer.
2. Pharmacologic controls for cancer, or chemotherapy, is one of the standard effective treatments.
3. Nutritional support is essential for the cancer client, but in itself is not a primary treatment.
4. Alternative medicine is not considered a very effective treatment for cancer at this point.
5. Radiation is one of the three primary treatments for cancer.

Page Ref: 560

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-3 Identify the three primary goals of cancer chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

4) A client asks why lung cancers are less sensitive to antineoplastic agents. Which response should the nurse make to the client?

1. "Lung cancer cells have a very erratic cell cycle, and this is why there isn't much difference between the number of replicating and resting cells."
2. "Lung cancer cells have been growing for a long time before detection, so they are less sensitive to antineoplastic agents."
3. "Lung cancer cells have a low growth fraction, which means there isn't much difference between the number of replicating and resting cells."
4. "Lung cancer cells grow in a high-oxygen environment, so they are not very sensitive to antineoplastic agents."

Answer: 3

Explanation:

1. Lung cancer cells do not have a very erratic cell cycle.
2. Lung cancer cells may grow for a long time before detection, but this is not the primary reason they are less susceptible to antineoplastic agents.
3. Growth fraction is a ratio of the number of replicating cells to the number of resting cells. Antineoplastic drugs are much more toxic to tissues and tumors with high growth fractions. Breast and lung cancers have low growth fractions.
4. A high-oxygen environment is not the reason why lung cancer cells are less sensitive to antineoplastic agents.

Page Ref: 560

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-4 Explain the significance of growth fraction and the cell cycle to the success of chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

5) A client asks why tamoxifen is so effective for the treatment of breast cancer. Which response should the nurse make to the client?

1. "Tamoxifen works by blocking estrogen receptors on breast tissue."
2. "Tamoxifen works by inhibiting the cellular mitosis of breast cancer."
3. "Tamoxifen works by inhibiting the metabolism of breast cancer cells."
4. "Tamoxifen works by binding to the DNA of breast cancer cells."

Answer: 1

Explanation:

1. Breast cancer is dependent on estrogen for growth. Tamoxifen (Nolvadex) acts by blocking estrogen receptors; thus, the tumor is deprived of estrogen.
2. Tamoxifen does not inhibit the cellular mitosis of breast cancer.
3. Tamoxifen does not inhibit the metabolism of breast cancer cells.
4. Tamoxifen does not bind to the DNA of breast cancer cells.

Page Ref: 571

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-12 Identify indications and adverse effects for hormones and hormone antagonists.

MNL Learning Outcome: Examine drugs used for neoplasia.

6) The nurse is caring for clients in a community clinic. Which client should the nurse recognize has the highest risk for developing cancer?

1. The client who consumes excessive alcohol
2. The client who is 25 pounds overweight but exercises regularly
3. The client who usually applies sunscreen when going outdoors
4. The client who frequently forgets breast self-exams but has routine mammograms

Answer: 1

Explanation:

1. Excessive use of alcohol increases the risk of developing cancer.
2. Being 25 pounds overweight is not a big risk and regular exercise is protective against cancer.
3. Application of sunscreen prior to going outdoors will help prevent skin cancer.
4. A monthly breast self-exam is ideal, but routine mammograms will help detect cancer.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-2 Identify factors associated with an increased risk of cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

7) A client is receiving cyclophosphamide (Cytoxan). Which teaching should the nurse provide when the client experiences oral irritation?

1. Avoid extreme temperatures of food selections.
2. Use an antiseptic mouthwash.
3. Rinse the mouth with normal saline.
4. Drink cold beverages.

Answer: 1

Explanation:

1. Avoiding extreme temperatures of foods will help prevent further trauma and mucosal irritation.
2. Most mouthwashes contain alcohol, which will increase irritation to the mucosa.
3. Normal saline will irritate the oral mucosa.
4. The client should be instructed to avoid temperature extremes to prevent further trauma and mucosal irritation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 38-8 Identify the indications and adverse effects for alkylating agents.

MNL Learning Outcome: Examine drugs used for neoplasia.

8) The nurse has provided education about cancer prevention to a community group. Which statement made by a participant indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I've been thinking about trying a vegetarian diet. Now may be a good time."
2. "I am going to call my doctor and schedule a pap smear."
3. "I think I will start taking vitamin A and selenium."
4. "I've never been a drinker, but I am going to start drinking a glass of wine with dinner."
5. "I am going to read the label on that new bottle of sunscreen I bought."

Answer: 1, 2, 5

Explanation:

1. It is not necessary to become a vegetarian, but following a plant-based diet may help to reduce the risk of cancer.
2. Regular screenings will help catch changes that may become malignant but is not a primary preventative measure.
3. Taking vitamin and mineral supplements is not shown to reduce cancer risk.
4. The client who does not already drink alcohol should not start drinking. Those who do drink alcohol should limit or eliminate its use.
5. Sunscreen use is recommended to help prevent skin cancer.

Page Ref: 559

Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 38-2 Identify factors associated with an increased risk of cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

9) A client is receiving doxorubicin. For which adverse effect should the nurse monitor the client?

1. Neurotoxicity
2. Cardiotoxicity
3. Nephrotoxicity
4. Hepatotoxicity

Answer: 2

Explanation:

1. Neurotoxicity is not a serious adverse effect associated with doxorubicin.
2. Doxorubicin has many adverse effects, some of which are serious. The most serious dose-limiting adverse effect of doxorubicin is cardiotoxicity.
3. Nephrotoxicity is not a serious adverse effect associated with doxorubicin.
4. Hepatotoxicity can occur with the use of other drugs, such as phenytoin, but is not a general adverse effect associated with doxorubicin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-10 Identify the indications and adverse effects for antitumor antibiotics.

MNL Learning Outcome: Examine drugs used for neoplasia.

10) A client is receiving methotrexate (MTX). For which assessment finding should the nurse withhold giving a dose to the client?

1. Ulcerative stomatitis
2. Elevated serum uric acid level
3. Deep vein thrombosis
4. Elevated white blood cell count

Answer: 1

Explanation:

1. Ulcerative stomatitis and diarrhea require suspension of therapy because they may lead to hemorrhagic enteritis and death from intestinal perforation.
2. An elevated serum uric acid level is a finding associated with the use of methotrexate.
3. The administration of methotrexate is not contraindicated in a client with deep vein thrombosis.
4. An elevated white blood cell count is not an indication to hold a dose of methotrexate.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-9 Identify the indications and adverse effects for antimetabolites.

MNL Learning Outcome: Examine drugs used for neoplasia.

11) A client is receiving vincristine. For which adverse effects should the nurse monitor the client?

1. Neurotoxicity

2. Cardiotoxicity
3. Nephrotoxicity
4. Hepatotoxicity

Answer: 1

Explanation:

1. The most serious dose-limiting adverse effects of vincristine relate to nervous system toxicity.
2. Cardiotoxicity is not a common adverse effect of vincristine.
3. Nephrotoxicity is not a common adverse effect of vincristine.
4. Hepatotoxicity is not a common adverse effect of vincristine.

Page Ref: 571

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-11 Identify the indications and adverse effects for natural products.

MNL Learning Outcome: Examine drugs used for neoplasia.

12) A client takes tamoxifen. Which finding should the nurse instruct the client to immediately report to the healthcare provider?

1. Unilateral leg swelling
2. Weight gain of 3 pounds in 1 week
3. Size increase of the tumor
4. Nausea and vomiting

Answer: 1

Explanation:

1. Unilateral leg swelling could indicate a deep vein thrombosis. This should be immediately reported to the healthcare provider.
2. There is no need to report weight changes.
3. An increase in the size of the tumor is an expected therapeutic event for the client taking tamoxifen.
4. Nausea and vomiting are common adverse effects of tamoxifen.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-12 Identify indications and adverse effects for hormones and hormone antagonists.

MNL Learning Outcome: Examine drugs used for neoplasia.

13) A client asks why several chemotherapeutic agents are being used as treatment for cancer. Which response should the nurse make to the client?

1. "Using multiple drugs means a shorter treatment time."

2. "Using multiple drugs decreases the incidence of side effects."
3. "Using multiple drugs will help kill more of the cancer."
4. "Using multiple drugs is more cost effective in treating cancer."

Answer: 3

Explanation:

1. Using multiple drugs does not shorten the time required for treatment.
2. Using multiple drugs does not decrease the incidence of side effects, but will reduce the chance of toxicity and slow the development of resistance.
3. In most cases, multiple drugs from different antineoplastic classes are given during a course of chemotherapy. The use of multiple drugs affects different stages of the cancer cell's lifecycle and attacks the various clones within the tumor via several mechanisms of action, thus increasing the percentage of cell kill.
4. Using multiple drugs is not more cost effective.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 38-6 Explain how combination therapy and special dosing protocols increase the effectiveness of chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

14) A client with leukemia asks where the cancer is located. Which response should the nurse provide the client?

1. Epithelial tissue
2. Bone marrow
3. Connective tissue
4. Lymphoid tissue

Answer: 2

Explanation:

1. Carcinoma is cancer in the epithelial tissue.
2. Leukemia is cancer of the blood-forming cells in the bone marrow.
3. Sarcoma is cancer of the connective tissue.
4. Lymphoma is cancer of the lymphoid tissue.

Page Ref: 559

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-1 Compare and contrast differences between normal cells and cancer cells.

MNL Learning Outcome: Examine drugs used for neoplasia.

15) The nurse is reviewing the pathophysiology of cancer. Which statement describes the growth fraction ratio?

1. The number of replicating cells to the number of active cells
2. The number of nonreplicating cells to the number of active cells
3. The number of replicating cells to the number of resting cells
4. The number of nonreplicating cells to the number of resting cells

Answer: 3

Explanation:

1. The number of replicating cells to the number of active cells is not the ratio as it relates to the growth fraction.
2. The number of nonreplicating cells to the number of active cells is not the ratio as it relates to the growth fraction.
3. The growth fraction is a measure of the number of cells undergoing mitosis in a tissue. It is a ratio of the number of replicating cells to the number of resting cells.
4. The number of nonreplicating cells to the number of resting cells is not the ratio as it relates to the growth fraction.

Page Ref: 560

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-4 Explain the significance of growth fraction and the cell cycle to the success of chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

16) A client is receiving an alkylating agent as treatment for cancer. Which action should the nurse make a priority?

1. Assess for nausea and vomiting
2. Monitor nutritional intake
3. Protect skin integrity
4. Evaluate CBC with differential

Answer: 4

Explanation:

1. Epithelial cells lining the GI tract are damaged as a result of alkylating agents, resulting in nausea, vomiting, and diarrhea, but this is not dose limiting.
2. Nutritional intake is affected when the epithelial cells lining the GI tract are damaged as a result of alkylating agents, resulting in nausea, vomiting, and diarrhea, but this is not dose limiting.
3. Alkylating agents are not associated with skin integrity issues in a client; however, the client should be monitored for adverse effects such as a rash and Stevens-Johnson syndrome.
4. Because blood cells are particularly sensitive to the actions of alkylating agents, bone marrow suppression is the primary dose-limiting toxicity of drugs in this class. Within days after administration, the numbers of erythrocytes, leukocytes, and platelets begin to decline, reaching a nadir at 9 to 14 days.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-8 Identify the indications and adverse effects for alkylating agents.

MNL Learning Outcome: Examine drugs used for neoplasia.

17) A client is taking tamoxifen. For which adverse effect should the nurse monitor the client?

1. Fatigue
2. Cough
3. Vaginal discharge
4. Signs of dehydration

Answer: 3

Explanation:

1. Fatigue may occur with many types of chemotherapy but is not a particular adverse effect with tamoxifen.
2. Cough is not an expected adverse effect of tamoxifen.
3. Vaginal discharge is an expected adverse effect of tamoxifen and should be reported to the healthcare team.
4. Rather than dehydration, the client should be monitored for water retention and concentrated urine.

Page Ref: 573

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-12 Identify indications and adverse effects for hormones and hormone antagonists.

MNL Learning Outcome: Examine drugs used for neoplasia.

18) The nurse is asked to explain the action of alkylating agents. Which response should the nurse make?

1. The agents can become incorporated into the structures of DNA and RNA, resulting in a disruption of nucleic acid function.
2. When cancer cells attempt to synthesize proteins, RNA, or DNA metabolic pathways are disrupted and the cancer cells die or their growth is slowed.
3. They change the shape of the DNA double helix and prevent nucleic acid from completing normal cell division.
4. They either directly or indirectly bind to cancer cells, causing an activation of the immune response, which results in the destruction of the cancer cells.

Answer: 3

Explanation:

1. Purine and pyrimidine analogs themselves can become incorporated into the structures of DNA and RNA, resulting in a disruption of nucleic acid function.
2. When cancer cells attempt to synthesize proteins, RNA, or DNA using the antimetabolites, metabolic pathways are disrupted and the cancer cells die or their growth is slowed.
3. Alkylating agents change the shape of the DNA double helix and prevent the nucleic acid from completing normal cell division.
4. Biological response modifiers are drugs that enhance the ability of body defenses to destroy cancer cells. They may produce their effects directly, by binding to cancer cells and destroying them, or indirectly, by activating general aspects of the immune response.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-8 Identify the indications and adverse effects for alkylating agents.

MNL Learning Outcome: Examine drugs used for neoplasia.

19) A client with Hodgkin disease asks why corticosteroids are being used for chemotherapy. Which response should the nurse include in the discussion?

1. "Corticosteroids destroy red blood cells."
2. "They suppress cell division in lymphocytes."
3. "The prescription causes bone marrow suppression."
4. "The drug blocks substances for tumor growth."

Answer: 2

Explanation:

1. Corticosteroids do not destroy red blood cells.
2. Because of the natural ability of corticosteroids to suppress cell division in lymphocytes, the principal value of these hormones is in the treatment of lymphomas, Hodgkin disease, and leukemias.
3. Corticosteroids do not cause bone marrow suppression.
4. Corticosteroids do not block substances essential for tumor growth.

Page Ref: 570

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-3 Identify the three primary goals of cancer chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

20) An infusion of doxorubicin has infiltrated. Which action should the nurse take to treat the extravasation?

1. Inspect the area for irritation.
2. A warm, wet compress should be placed on the site.
3. Wash the area thoroughly with soap and water.
4. Apply ice packs to the area immediately.

Answer: 4

Explanation:

1. Special actions are indicated beyond inspecting the area.
2. A warm wet compress is not the recommended treatment.
3. Washing the surface will not treat the extravasation.
4. Ice packs will help to reduce absorption of the drug.

Page Ref: 569

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-11 Identify the indications and adverse effects for natural products.

MNL Learning Outcome: Examine drugs used for neoplasia.

21) A client is receiving vincristine. Which action should the nurse take when the infusion has extravasated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Apply local ice packs.
2. Inject hyaluronidase per protocol.
3. Place a tourniquet on the client's arm above the intravenous site.
4. Place warm compresses on the site.
5. Administer prednisone per protocol.

Answer: 2, 4

Explanation:

1. Cold compresses will significantly increase the toxicity of vinca alkaloids.
2. Hyaluronidase is used as treatment for vincristine extravasation.
3. There is no need to place a tourniquet on the client's arm.
4. Warm compresses are recommended as treatment.
5. Prednisone is not given concurrently with vincristine due to increased bone marrow toxicity.

Page Ref: 571

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-11 Identify the indications and adverse effects for natural products.

MNL Learning Outcome: Examine drugs used for neoplasia.

22) A client is prescribed an aromatase inhibitor. In which way should the nurse describe the action of this medication?

1. Block the estrogen receptors that stimulate the growth of ER-positive tumors
2. Block an enzyme that catalyzes the final step in the synthesis of estrogen
3. Suppress the ovary and adrenal gland from producing estrogen
4. Weaken the effect of estrogen on ER-positive tumors

Answer: 2

Explanation:

1. Estrogen-receptor modifiers block estrogen-receptor sites.
2. Aromatase inhibitors block an enzyme that catalyzes the final step in the synthesis of estrogen.
3. Aromatase inhibitors do not suppress the ovary and adrenal gland from producing estrogen.
4. Aromatase inhibitors do not weaken the effect of estrogen on ER-positive tumors.

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Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-12 Identify indications and adverse effects for hormones and hormone antagonists.

MNL Learning Outcome: Examine drugs used for neoplasia.

23) The nurse is researching different chemotherapeutic agents. Which natural product should the nurse identify that has antineoplastic activity?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Taxanes
2. Antimetabolites
3. Vinca alkaloids
4. Topoisomerase inhibitors
5. Alkylating agents

Answer: 1, 3, 4

Explanation:

1. Natural products that have antineoplastic activity include taxanes.
2. Antimetabolites are not natural products.
3. Natural products that have antineoplastic activity include vinca alkaloids.
4. Topoisomerase inhibitors are natural products that have antineoplastic activity.
5. Alkylating agents are not natural products.

Page Ref: 568

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-11 Identify the indications and adverse effects for natural products.

MNL Learning Outcome: Examine drugs used for neoplasia.

24) A client with a benign tumor on the arm asks why no treatment is prescribed. Which response should the nurse make?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Benign tumors do not metastasize."
2. "Many of the tumors are resistant to treatment."
3. "Treatment will only be required if the tumor continues to grow."
4. "Your tumor is slow growing."
5. "Benign tumors rarely require treatment."

Answer: 1, 4, 5

Explanation:

1. Benign tumors do not metastasize.
2. Benign tumors are not resistant to treatment.
3. Benign tumors are slow growing.
4. Benign tumors are slow growing.
5. Benign tumors rarely require prescriptive treatment.

Page Ref: 559

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-1 Compare and contrast differences between normal cells and cancer cells.

MNL Learning Outcome: Examine drugs used for neoplasia.

25) A client with cancer that has not responded to treatment asks why palliative chemotherapy is being suggested. Which information should the nurse include in the discussion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Palliative chemotherapy can continue to help slow the growth of the cancer."
2. "Sometimes the chemotherapy can reduce the size of the tumor."
3. "The cancer may still respond to treatment."
4. "Chemotherapy can sometimes reduce the pain."
5. "Chemotherapy may well improve your quality of life."

Answer: 2, 4, 5

Explanation:

1. Chemotherapy that is used as palliation is not used to help slow the growth of the cancer.
2. Chemotherapy can be used as palliation. This treatment includes chemotherapy drugs that are administered to reduce the size of the tumor.
3. Chemotherapy used as palliation is not intended to treat the cancer. This statement is inappropriate to make to the client.
4. Chemotherapy can be used as palliation. This treatment includes chemotherapy drugs that are administered to ease the severity of pain.
5. Chemotherapy can be used as palliation. This treatment includes chemotherapy drugs that are administered to improve the quality of life.

Page Ref: 560

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-3 Identify the three primary goals of cancer chemotherapy.

MNL Learning Outcome: Examine drugs used for neoplasia.

26) A client asks when Pap tests should be started. Which response should the nurse make?

1. "You should start the testing by age 21."
2. "You should start testing by age 21 or if you begin using alcohol."
3. "By age 21, but earlier if you have a family history of cancer."
4. "By age 21 or earlier if you are smoking."

Answer: 1

Explanation:

1. All women should start having Pap tests at age 21.
2. Alcohol use is not a determining factor.
3. A family history of cancer is not a determining factor as to when Pap tests should begin.
4. Tobacco use is not the determining factor as to when to start Pap tests.

Page Ref: 559

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 38-2 Identify factors associated with an increased risk of cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

27) A client's chemotherapy infusion has infiltrated. Which action should the nurse make a priority when preparing to administer an intravenous vesicant?

1. Notify the healthcare provider for a central line placement.
2. Wear gloves when drawing up the medication.
3. Understand the protocol for extravasation.
4. Place the client in reverse isolation prior to administering the vesicant.

Answer: 3

Explanation:

1. Central lines are preferred and should be used whenever possible, but this is not the priority.
2. The nurse should wear gloves, but this is not the priority.
3. Before administering intravenous antineoplastic drugs, nurses should know the emergency treatment for extravasation.
4. The client does not require reverse isolation unless significantly immunocompromised.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 38-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

28) A client is receiving chemotherapy. Which action should the nurse identify can be used to minimize bone marrow toxicity?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Use alkylating agents.
2. Consider bone marrow transplantation.
3. Provide hormone antagonists.
4. Administer platelets.
5. Implement growth factor therapy.

Answer: 2, 4, 5

Explanation:

1. Alkylating agents are used for the treatment of cancer cells and act by changing the shape of the DNA double helix and preventing the nucleic acid from completing normal cell division.
2. Efforts to minimize bone marrow toxicity may include bone marrow transplantation.
3. Hormone antagonists are antineoplastic drugs that slow the growth of hormone-dependent tumors of the breast or prostate.
4. Efforts to minimize bone marrow toxicity may include platelet infusions.
5. Therapy with growth factors minimizes bone marrow toxicity.

Page Ref: 562

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 38-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

29) An older adult client is receiving chemotherapy. For which outcome should the nurse monitor the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hypotension
2. Incontinence
3. Peripheral neuropathy
4. Urinary retention
5. Reduced deep tendon reflexes

Answer: 1, 3, 5

Explanation:

1. Problems with autonomic regulation with symptoms such as hypotension, and other neurotoxic effects, may increase the risk for falls and injury.
2. Chemotherapy does not cause incontinence in older adults.
3. Many chemotherapy drugs used to treat cancer have neurotoxic effects, which is of particular concern in the older adult. Peripheral neuropathy caused by chemotherapy can be severe in the older adult.
4. Chemotherapy does not cause urinary retention in older adults.
5. Reduced deep tendon reflexes occur, as chemotherapy affects autonomic regulation.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 38-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for cancer.

MNL Learning Outcome: Examine drugs used for neoplasia.

30) The nurse is caring for a client receiving androgen antagonists as treatment for cancer. For which adverse effect should the nurse monitor?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Insomnia
2. Hot flashes
3. Hair loss
4. Constipation
5. Nausea

Answer: 1, 2, 5

Explanation:

1. Insomnia is an adverse effect of androgen antagonists.
2. Hot flashes can occur when taking an androgen antagonist as treatment for cancer.
3. Hair loss is not identified as an adverse effect of androgen antagonists.
4. Diarrhea is an adverse effect of androgen antagonists.
5. Nausea is an adverse effect of androgen antagonists.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 38-12 Identify indications and adverse effects for hormones and hormone antagonists.

MNL Learning Outcome: Examine drugs used for neoplasia.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 39 Drugs for Allergic Rhinitis and the Common Cold**

1) A client with nasal congestion reports a worsening of symptoms since using oxymetazoline (Afrin). Which question should the nurse ask the client?

1. "Have you checked the expiration date on the prescription?"
2. "Have you experienced a recent fever?"
3. "Are you using any other inhaled prescriptions?"
4. "How long have you been using the prescription?"

Answer: 4

Explanation:

1. While it is possible that the client is using an outdated prescription, this is most likely not the reason the client is experiencing rebound congestion.
2. A recent fever is not associated with rebound congestion.
3. The use of other inhaled prescriptions will not cause or prevent rebound congestion.
4. It is important to assess the length of time the client has been using oxymetazoline. Oxymetazoline can cause rebound congestion if used for a long period of time.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 39-5 Compare and contrast the oral and intranasal decongestants.  
MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

2) A client is taking pseudoephedrine (Sudafed). Which assessment finding should cause the nurse to be concerned?

1. Temperature of 100°F
2. Respiratory rate of 22
3. Low blood pressure
4. Complaints of a dry mouth

Answer: 3

Explanation:

1. A high temperature is possible with pseudoephedrine but is not the primary concern.
2. A respiratory rate of 22 is possible with pseudoephedrine, but this is not the primary concern.
3. Pseudoephedrine may cause hypotension.
4. A dry mouth is possible with pseudoephedrine but is not the primary concern.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

3) The nurse instructs a client prescribed diphenhydramine (Benadryl) for allergies. Which client statement indicates teaching was effective?

1. "Drowsiness is common but should lessen over time."
2. "If this medication makes my nose run, I can use a nasal spray."
3. "I need to watch my intake of sodium with this medication."
4. "I cannot take this medication with pseudoephedrine (Sudafed)."

Answer: 1

Explanation:

1. Drowsiness is a common adverse effect of antihistamines and will diminish with long-term use.
2. Antihistamines dry the nasal secretions, not increase them.
3. The use of antihistamines does not require sodium restriction.
4. Pseudoephedrine (Sudafed) is commonly used with antihistamines.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

4) The nurse instructs a client prescribed an antihistamine. Which client statement indicates

teaching was effective?

1. "I can still have my after-dinner drink."
2. "I may experience diarrhea while taking this prescription."
3. "This prescription is safe because it is sold over-the-counter."
4. "This medication could make me very sleepy."

Answer: 4

Explanation:

1. Alcohol will increase the sedative effects of antihistamines, so the client should not consume alcohol while taking them.
2. Antihistamines can produce constipation.
3. Just because a prescription is sold over-the-counter does not mean it is safe.
4. Sedation is a common side effect of antihistamines.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

5) The nurse reviews the major functions of the upper respiratory tract with a client. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Inward airflow from the trachea branches off to the two bronchi.
2. The nose warms the air before it reaches the lungs.
3. The nasal mucosa is the first line of immunological defense.
4. Activation of the parasympathetic nervous system constricts arterioles in the nose.
5. Activation of the sympathetic nervous system constricts arterioles in the nose.

Answer: 2, 3, 5

Explanation:

1. The trachea and bronchi are part of the lower respiratory tract.
2. The nose warms the air before it reaches the lungs.
3. The nasal mucosa is the first line of immunological defense.
4. Activation of the sympathetic nervous system, not the parasympathetic nervous system, constricts arterioles in the nose.
5. Activation of the sympathetic nervous system constricts arterioles in the nose.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 39-1 Identify major functions of the upper respiratory tract.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

6) A client asks what causes allergic rhinitis. Which statement should the nurse include in the discussion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Allergic rhinitis can occur after exposure to animal dander."
2. "It can be caused by tobacco smoke."
3. "Exposure to pollens from weeds and grass causes allergic rhinitis."
4. "Asthma is associated with allergic rhinitis."
5. "There is a strong genetic predisposition for allergic rhinitis."

Answer: 1, 2, 3, 5

Explanation:

1. One of the causative factors of allergic rhinitis is animal dander.
2. It can be caused by tobacco smoke in some people.
3. Allergic response to pollen can cause allergic rhinitis in some people.
4. Although associated with asthma, allergic rhinitis is not caused by asthma.
5. There is a strong genetic predisposition for allergic rhinitis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 39-2 Explain common causes and symptoms of allergic rhinitis.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

7) The nurse reviews the role of histamine receptors associated with allergic symptoms with a new graduate nurse. Which statement made by the graduate nurse indicates further instruction is needed?

1. "H<sub>1</sub> receptors are found in the stomach."
2. "H<sub>1</sub> receptors are responsible for allergic symptoms."
3. "H<sub>2</sub> receptors increase mucus secretion in the stomach."
4. "H<sub>2</sub> receptors are responsible for peptic ulcers."

Answer: 1

Explanation:

1. H<sub>2</sub> receptors are found in the stomach.
2. The histamine receptors responsible for allergic symptoms are called H<sub>1</sub> receptors.
3. H<sub>2</sub> receptors increase mucus secretion in the stomach.
4. H<sub>2</sub> receptors are responsible for peptic ulcers.

Page Ref: 585

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H<sub>1</sub>-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

8) A client is taking diphenhydramine (Benadryl). Which symptom should the nurse instruct the client to report to the healthcare provider?

1. Sedation
2. Diarrhea
3. Weight gain
4. Urinary hesitancy

Answer: 4

Explanation:

1. Sedation is a common side effect that does not need to be reported.
2. Diarrhea is not associated with the use of diphenhydramine.
3. Weight gain is not associated with the use of diphenhydramine.
4. Urinary hesitancy is an anticholinergic effect of diphenhydramine and should be reported to the healthcare provider.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

9) A client prescribed beclomethasone (Beconase) intranasally asks if the prescription is safe. Which response should the nurse make to the client?

1. "Intranasal glucocorticoids produce almost no serious adverse effects."
2. "Intranasal glucocorticoids will provide immediate relief."
3. "Intranasal glucocorticoids are safe if they are not used too long."
4. "Intranasal glucocorticoids are safe only if used once a day."

Answer: 1

Explanation:

1. Intranasal glucocorticoids produce almost no serious adverse effects.
2. Intranasal glucocorticoids have a delayed effect.
3. There is no maximum time frame for the use of intranasal glucocorticoids; they produce almost no serious adverse effects.
4. Intranasal glucocorticoids may be used more than once a day; they produce almost no serious adverse effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 39-4 Describe the actions and adverse effects of intranasal corticosteroids and mast cell stabilizers.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

10) The nurse teaches a client about the difference between oral and nasal decongestants. Which client statement indicates teaching was effective?

1. "Oral decongestants can cause a rapid heart rate."
2. "Intranasal decongestants are safe to use for a few weeks."
3. "Oral and nasal decongestants can cause rebound congestion."
4. "Oral decongestants are the most effective at relieving severe congestion."

Answer: 1

Explanation:

1. One of the side effects of oral decongestants is tachycardia.
2. Intranasal decongestants should not be used for longer than 3 to 5 days.
3. Oral decongestants do not cause rebound congestion; nasal decongestants can cause this.
4. Intranasal, not oral, decongestants are the most effective at relieving severe congestion.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 39-5 Compare and contrast the oral and intranasal decongestants.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

11) A client asks when an antitussive can be used. Which response should the nurse make to the client?

1. "When you are coughing up secretions."
2. "When your temperature is 101.2°F."
3. "When you have been diagnosed with a respiratory infection."
4. "When you have a dry cough and cannot rest."

Answer: 4

Explanation:

1. An antitussive is not used to dry up lung secretions.
2. The client should be assessed if a fever is present prior to taking any prescription.
3. It is not desirable to suppress the cough reflex in a client with a respiratory infection.
4. Antitussives can be taken when the client is experiencing a dry, hacking, and nonproductive cough. This type of cough is irritating to the membranes of the throat and deprives the client of much-needed rest.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

12) A client is taking fluticasone (Flonase). Which condition should cause the nurse to be concerned?

1. Diabetes mellitus
2. Infection
3. Glaucoma
4. Hypertension

Answer: 2

Explanation:

1. There is no contraindication for use of fluticasone for a client with diabetes mellitus.
2. Because fluticasone can mask signs of infection, a client with a known infection should not receive intranasal corticosteroids.
3. There is no contraindication for use of fluticasone for a client with glaucoma.
4. There is no contraindication for use of fluticasone for a client with hypertension.

Page Ref: 589

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-4 Describe the actions and adverse effects of intranasal corticosteroids and mast cell stabilizers.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

13) A client is prescribed dextromethorphan (Delsym). Which information should the nurse include when teaching about this medication?

1. Avoid grapefruit juice.
2. Dextromethorphan can be used with a chronic cough.
3. The prescription may have a slow onset of action.
4. Decrease your alcohol intake while taking this prescription.

Answer: 1

Explanation:

1. Grapefruit juice can raise serum levels of dextromethorphan and cause toxicity.
2. Dextromethorphan should be avoided in clients in the treatment of chronic cough with excessive bronchial secretions that need to be expelled.
3. The prescription has a rapid onset of action, usually within 15 to 30 minutes.
4. The client should not drink any alcohol while taking the prescription as this may result in sedation.

Page Ref: 592

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

14) A client asks why a monoamine oxidase inhibitor (MAOI) cannot be taken with diphenhydramine (Benadryl). Which response should the nurse make?

1. "The diphenhydramine (Benadryl) interferes with the therapeutic effect of the MAOI."
2. "You are at risk for the development of seizures."
3. "The MAOI prescription decreases the effectiveness of diphenhydramine (Benadryl)."
4. "You may develop a hypertensive crisis."

Answer: 4

Explanation:

1. The combination of prescriptions does not decrease the therapeutic effect of MAOI.
2. The combination of prescriptions does not place the client at risk for seizures.
3. The combination of prescriptions does not decrease the therapeutic effect of diphenhydramine.
4. The combination of diphenhydramine and a monoamine oxidase inhibitor drug can result in a hypertensive crisis.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

15) A client is experiencing allergic rhinitis. Which medication should the nurse expect to be prescribed for this client?

1. Oral corticosteroids
2. Oral decongestants
3. Intranasal corticosteroids
4. Intranasal decongestants

Answer: 3

Explanation:

1. Oral corticosteroids are not used in the treatment of allergic rhinitis.
2. Oral decongestants are used as a reliever of the symptoms associated with allergic rhinitis.
3. Intranasal corticosteroids are used as a preventer in the treatment of allergic rhinitis.
4. Intranasal decongestants are used as a reliever of the symptoms associated with allergic rhinitis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 39-4 Describe the actions and adverse effects of intranasal corticosteroids and mast cell stabilizers.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

16) The nurse is reviewing the mechanism of action of antihistamines. Which histamine receptor

should the nurse identify that is blocked by the action of an antihistamine?

1. H<sub>1</sub> receptor site
2. B<sub>1</sub> receptor site
3. B<sub>2</sub> receptor site
4. H<sub>2</sub> receptor site

Answer: 1

Explanation:

1. Antihistamines block the H<sub>1</sub> receptor site.
2. They do not block B<sub>1</sub> receptor sites.
3. Antihistamines do not block B<sub>2</sub> receptor sites.
4. The drugs do not block H<sub>2</sub> receptor sites.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H<sub>1</sub>-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

17) A client is prescribed an intranasal decongestant. Which information should the nurse include when teaching the client about this medication?

1. "Wait 15 minutes in between additional nasal sprays."
2. "Spit out any excess intranasal decongestant that drains in the mouth."
3. "Clear the nasal passage after administering the intranasal decongestant."
4. "Limit the use of the nasal decongestant to 2 weeks."

Answer: 2

Explanation:

1. The client should be instructed to wait 5 to 10 minutes prior to following with additional nasal sprays as prescribed. Allowing the first of two sprays time to constrict local vessels and mucosa will allow the spray to reach higher into passages.
2. The client should be instructed to spit out any excess intranasal decongestant that drains in the mouth. Swallowing additional drug may increase the risk of systemic adverse effects.
3. The nasal passages should be cleared prior to the administration of an intranasal decongestant. Clearing the nasal passages before administering the nasal spray and allowing the first of two sprays time to constrict local vessels and mucosa will allow the spray to reach higher into passages.
4. The client should be taught to limit use of decongestant nasal sprays to 3 to 5 days, unless otherwise advised by the healthcare provider, to avoid rebound congestion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 39-5 Compare and contrast the oral and intranasal decongestants.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

18) The nurse is reviewing different types of over-the-counter antihistamines. Which antihistamine combination contains an analgesic property?

1. Sudafed PE Sinus and Allergy
2. Triaminic Cold/Allergy
3. Benadryl Allergy
4. Dimetapp

Answer: 3

Explanation:

1. Sudafed PE Sinus and Allergy contains chlorpheniramine and phenylephrine.
2. Triaminic Cold/Allergy contains chlorpheniramine and phenylephrine.
3. Benadryl Allergy contains acetaminophen.
4. Dimetapp contains chlorpheniramine and phenylephrine.

Page Ref: 586

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for allergic rhinitis and the common cold.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

19) The nurse is caring for a client with a cough. For which reason should the nurse suspect an opioid antitussive would be prescribed?

1. Decrease nasal congestion
2. Break down mucus
3. Relieve severe cough
4. Relieve mild cough

Answer: 3

Explanation:

1. Decongestants decrease congestion.
2. Expectorants break down mucus.
3. Opioid antitussives are used to relieve severe cough.
4. Mild coughs do not require an antitussive.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

20) A client is prescribed an antihistamine to treat allergy symptoms. Which information should the nurse include when teaching about this medication?

1. "Antihistamines are most effective when taken prophylactically."
2. "Antihistamines are useful in reversing allergic symptoms."
3. "Antihistamines are effective for long-term therapy."
4. "Antihistamines have minimal side effects."

Answer: 1

Explanation:

1. Antihistamines are most effective when taken prophylactically to prevent allergic symptoms.
2. Antihistamines are not useful in reversing allergic symptoms.
3. Antihistamines are not effective for long-term therapy.
4. Antihistamines do not have minimal side effects; they can produce anticholinergic effects such as increased heart rate, urinary retention, constipation, and blurred vision.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

21) A client has been using dextromethorphan (Delsym) for several weeks. For which adverse effect should the nurse assess the client?

1. Nephrotoxicity
2. Cardiotoxicity
3. CNS toxicity
4. Hepatotoxicity

Answer: 3

Explanation:

1. Abuse of dextromethorphan is not associated with nephrotoxicity.
2. Abuse of dextromethorphan is not associated with cardiotoxicity.
3. Abuse of dextromethorphan is associated with CNS toxicity with a wide variety of symptoms, including slurred speech, ataxia, hyperexcitability, stupor, respiratory depression, seizures, coma, and toxic psychosis.
4. Abuse of dextromethorphan is not associated with hepatotoxicity.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

22) A client with chronic bronchitis is prescribed breathing treatments with acetylcysteine (Mucomyst). Which information should the nurse include when teaching the client about this medication?

1. "Stop the treatment if you start to cough."
2. "Do not use the prescription if you notice it has a foul odor."
3. "This drug is used to decrease bronchospasms."
4. "You may experience nausea while using this drug."

Answer: 4

Explanation:

1. The prescription is used to thin mucus to make it easier to remove by coughing, which is a desired effect.
2. Acetylcysteine has an offensive odor resembling rotten eggs.
3. This prescription is not used to decrease bronchospasms. Acetylcysteine is a mucolytic and is designed to thin mucus by breaking down the chemical structure.
4. One of the adverse effects of acetylcysteine is nausea.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 39-7 Describe the role of expectorants and mucolytics in treating bronchial congestion.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

23) A client is prescribed to take over-the-counter medication as needed for allergy symptoms. Which information should the nurse include when discussing the appropriate dosing and administration needs for self-administering medications?

1. "Drink water when you take cough syrup."
2. "Avoid drinking liquids with expectorants."
3. "Take your antihistamine as soon as you begin experiencing allergy symptoms."
4. "Clear your nasal passages by blowing prior to using your nasal spray."

Answer: 3

Explanation:

1. Cough syrups should be swallowed without water and allowed to coat the throat for soothing effects, followed by increased fluid intake 30 to 60 minutes later.
2. Expectorants should be taken with a full glass of liquid, and fluid intake throughout the day should be increased to assist in thinning mucus for ease of expectoration.
3. The client should begin taking antihistamines before the allergy season begins or at the earliest possible appearance of symptoms for best results.
4. When using a nasal decongestant, nasal passages should be cleared by blowing, followed by the nasal spray.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 39-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for allergic rhinitis and the common cold.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

24) A client seeks medical attention for a new onset of symptoms. Which assessment finding should indicate to the nurse that the client is experiencing allergic rhinitis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Tearing eyes
2. Itchy throat
3. Nasal congestion
4. Sneezing
5. Coughing

Answer: 1, 2, 3, 4

Explanation:

1. Tearing eyes is a symptom of allergic rhinitis.
2. Itchy throat is a symptom of allergic rhinitis.
3. Nasal congestion is a symptom of allergic rhinitis.
4. Sneezing is a symptom of allergic rhinitis.
5. Coughing is not a symptom of allergic rhinitis.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-2 Explain common causes and symptoms of allergic rhinitis.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

25) A client is prescribed an intranasal corticosteroid. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You may feel a burning sensation when using this drug."
2. "This prescription will be most effective if used only when symptoms are present."
3. "Squeeze the container cautiously so you do not inadvertently administer too much of a dose."
4. "This prescription may dry out your nasal passages enough to cause a nosebleed."
5. "Avoid eating licorice while taking this prescription."

Answer: 1, 4, 5

Explanation:

1. The most frequently reported adverse effect of this drug is an intense burning sensation in the nose occurring immediately after spraying.
2. The drug often takes 1 to 3 weeks to achieve peak response and should be started in advance of expected need.
3. The prescription is provided in metered-spray devices.
4. Excessive drying of the nasal mucosa may occur, which leads to epistaxis.
5. Licorice may potentiate the effects of corticosteroids.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 39-4 Describe the actions and adverse effects of intranasal corticosteroids and mast cell stabilizers.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

26) A client is prescribed an antitussive with codeine. Which condition should cause the nurse to be concerned?

1. Asthma
2. Diabetes
3. Chronic kidney disease
4. Coronary artery disease

Answer: 1

Explanation:

1. Care must be taken when using an antitussive with codeine in clients with asthma because bronchoconstriction may occur.
2. An antitussive with codeine does not place a client with diabetes at risk for an adverse effect.
3. An antitussive with codeine does not place a client with chronic kidney disease at risk for an adverse effect.
4. An antitussive with codeine does not place a client with coronary artery disease at risk for an adverse effect.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

27) A client asks how benzonatate works to suppress a cough. Which response should the nurse make to the client?

1. "Benzonatate anesthetizes the receptor sites of the lungs."
2. "It raises the cough threshold in the central nervous system."
3. "Benzonatate reduces the viscosity of the mucus."
4. "The drug's anticholinergic effects decrease the cough reflex."

Answer: 1

Explanation:

1. Chemically related to the local anesthetic tetracaine, benzonatate suppresses the cough reflex by anesthetizing stretch receptors in the lungs.
2. Opioids raise the cough threshold in the central nervous system.
3. Expectorants reduce the viscosity of the mucus.
4. Benzonatate does not have anticholinergic effects.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

28) The nurse is preparing a teaching tool about antihistamines. Which disorder should the nurse include that is treated with these medications?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Insomnia
2. Vertigo
3. Cystic fibrosis
4. Parkinson disease
5. Nasal congestion

Answer: 1, 2, 4

Explanation:

1. Antihistamines can be used to treat insomnia.
2. Antihistamines can be used to treat vertigo.
3. Mucolytics are used to help treat cystic fibrosis.
4. Antihistamines can be used to treat Parkinson disease.
5. Decongestants are used to treat nasal congestion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 39-3 Describe the indications, actions, and adverse effects of H1-receptor antagonists.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

29) A client asks which medication can be used for seasonal allergies. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Some antihistamines can help prevent the onset of allergies."
2. "Some patients find that intranasal corticosteroids help prevent their allergies."
3. "Drugs that are mast cell stabilizers may help you avoid your seasonal allergies."
4. "Oral decongestants can help you prevent allergies."
5. "Nasal decongestants are very good at preventing allergic response."

Answer: 1, 2, 3

Explanation:

1. Antihistamines are *preventers* of allergies.
2. Intranasal corticosteroids are *preventers* of allergies.
3. Mast cell stabilizers are *preventers* of allergies.
4. Oral decongestants are *relievers* of allergy symptoms.
5. Nasal decongestants are *relievers* of allergy symptoms.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 39-8 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for allergic rhinitis and the common cold.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

30) A patient is prescribed benzonatate. Which information should the nurse provide when teaching about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "This medication should help relieve your cough."
2. "Do not chew this medication."
3. "This medication may increase your blood pressure."
4. "You may be nauseated when taking this medication."
5. "Adverse effects are uncommon, but you may develop a headache."

Answer: 1, 2, 4, 5

Explanation:

1. Benzonatate is used as an antitussive.
2. If chewed, this drug can cause the side effect of numbing the mouth and pharynx.
3. Hypertension is not an effect of this medication.
4. Nausea is a possible effect of this medication.
5. Adverse effects are uncommon, but a headache may develop.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 39-6 Describe the use of antitussives in treating cough.

MNL Learning Outcome: Examine drugs used for allergic rhinitis and the common cold.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 40 Drugs for Asthma and Other Pulmonary Disorders**

1) A client prescribed an albuterol (Proventil) via inhaler asks why the medication is not available as a pill. Which response should the nurse make to the client?

1. "When you inhale the prescription the blood supply in the lungs absorbs it rapidly resulting in quicker effects."
2. "Oral prescriptions will not relieve your symptoms; you must have an inhaled prescription for relief of symptoms."
3. "Oral prescriptions produce too many side effects."
4. "The prescription cannot be absorbed in the GI tract because the acid in the stomach will destroy it."

Answer: 1

Explanation:

1. The respiratory system offers a rapid and efficient mechanism for absorbing prescriptions. The enormous surface area of the bronchioles and alveoli, and the rich blood supply to these areas, results in an almost instantaneous onset of action for inhaled substances.
2. Albuterol (Proventil) can be given orally (PO) but has a faster onset of action if inhaled.
3. Inhaled prescriptions also produce side effects.
4. Oral prescriptions are effective with some symptoms of respiratory disorders, but inhaled prescriptions work faster.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-2 Explain the operation of devices used to deliver medications to the respiratory tract.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

2) The nurse instructs a client with asthma about bronchodilators. Which client statement indicates that teaching was effective?

1. "The medication widens the airways because it decreases the production of mucus that narrows them."
2. "The medication widens the airways because it decreases the production of histamine that narrows them."
3. "The medication widens the airways because it acts on the parasympathetic nervous system."
4. "The medication widens the airways because it stimulates the fight-or-flight response of the nervous system."

Answer: 4

Explanation:

1. Bronchodilators do not decrease the production of mucus.
2. Bronchodilators do not decrease the production of histamine.
3. Bronchodilators act on the sympathetic nervous system, not the parasympathetic nervous system.
4. During the fight-or-flight response, beta2-adrenergic receptors of the sympathetic nervous system are stimulated, the bronchiolar smooth muscle relaxes and bronchodilation occurs.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 40-4 Discuss the indications and adverse effects of beta-adrenergic agonists in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

3) A client asks why asthma medication is needed if an asthma attack has not occurred for several months. Which response should the nurse make?

1. "The medication should be taken indefinitely to prevent future asthma attacks."
2. "The medication is still needed to decrease inflammation in your airways and help prevent an attack."
3. "The medication needs to be taken or your lungs can become increasingly damaged if you continue to have asthma attacks."
4. "The medication should be taken for at least a year and if you have not had an asthma attack within that year you will be able to stop taking your prescription."

Answer: 2

Explanation:

1. This response does not provide specific information as to why the client should continue to take the medication.
2. Effective treatment of asthma includes long-term treatment to prevent attacks and decrease inflammation, as well as short-term treatment when an attack occurs.
3. Telling a client that their lungs will become increasingly damaged is nontherapeutic and is not accurate information.
4. Long-term treatment of asthma continues indefinitely, not for just 1 year.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-3 Identify the two primary goals in treating the patient with asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

4) A client is prescribed inhalation therapy for asthma. Which information should the nurse include when discussing this treatment for asthma?

1. Inhalation therapy is effective because it provides around-the-clock therapy, as opposed to oral medications.
2. Inhalation therapy is the preferred treatment for adolescents because it is easier for them to manage.
3. Inhalation therapy is effective because it provides both systemic and local relief of symptoms.
4. Inhalation therapy is effective because it goes to the direct site of action in the respiratory tract.

Answer: 4

Explanation:

1. Inhalation therapy does not provide around-the-clock therapy.
2. Inhalation therapy is used for adolescents because it is effective, not because it is easier for them to manage.
3. Inhalation therapy does not provide systemic relief of symptoms.
4. The major advantage of aerosol therapy is that it delivers the drugs to their direct site of action.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-2 Explain the operation of devices used to deliver medications to the respiratory tract.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

5) A client is taking methylxanthine as treatment for asthma. For which adverse effect should the nurse monitor the client?

1. "Have you experienced any recent coughing?"
2. "Have you experienced any weight loss?"
3. "Have you been experiencing dizziness?"
4. "Have you experienced any urinary retention?"

Answer: 3

Explanation:

1. Methylxanthine is not associated with coughing.
2. Weight loss is not specifically associated with the use of methylxanthine.
3. Adverse effects of methylxanthine include dizziness.
4. Methylxanthine is not associated with urinary retention.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-6 Discuss the indications and adverse effects of methylxanthines in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

6) The nurse instructs a client about the use of a metered-dose inhaler (MDI) and spacer. Which client statement indicates further teaching is required?

1. "While I depress the cannister I will make sure that I inhale slowly."
2. "After each use of my metered-dose inhaler, I will rinse my mouth."
3. "It is important that I drink plenty of fluids while I am using the metered-dose inhaler."
4. "I should keep the spacer moist between uses by storing it in a plastic zip bag."

Answer: 4

Explanation:

1. The client should inhale slowly while depressing the cannister to help deliver a measured dose of the prescription during each breath.
2. Rinsing the mouth after using the metered-dose inhaler (MDI) is correct; it will help reduce oral absorption of the drug.
3. Fluids are encouraged to liquefy pulmonary secretions when using the MDI.
4. The spacer and inhaler should be rinsed with water and allowed to air-dry.

Page Ref: 610

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 40-2 Explain the operation of devices used to deliver medications to the respiratory tract.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

7) A client is receiving beclomethasone (Beconase) nasal spray. Which assessment should the nurse make a priority?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Assess the mouth for any sign of fungal infection.
2. Test the blood glucose prior to administration of nasal spray.
3. Blow the nose prior to administration of nasal spray.
4. Assess a change in taste.
5. Assess hoarseness or change in voice.

Answer: 1, 3, 4, 5

Explanation:

1. Clients may develop candidiasis so the mouth should be assessed.
2. There is no need to assess the client's blood glucose.
3. The client should gently blow the nose prior to use to clear the nasal passages.
4. Clients may experience a change in taste.
5. Clients may experience a change in voice as a local effect.

Page Ref: 606

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-7 Discuss the indications and adverse effects of corticosteroids in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

8) A client is prescribed inhaled ipratropium (Atrovent). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Wait 15 minutes between inhaled dosages.
2. The prescription may also be used for acute asthma attacks.
3. Report any increased dyspnea.
4. Report any changes in urinary pattern.
5. Use the medication consistently, not occasionally.

Answer: 3, 4, 5

Explanation:

1. It is only necessary to wait 2 to 3 minutes between dosages.
2. Anticholinergic drugs will not terminate an acute asthma attack, as peak effects may take 1 to 2 hours.
3. The client should be advised to report any symptoms of deteriorating respiratory status such as increased dyspnea.
4. Anticholinergic drugs can result in urinary retention, and the client should report any changes in urinary patterns.
5. To get the most benefit from ipratropium (Atrovent), it must be used consistently.

Page Ref: 604

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning  
Learning Outcome: 40-5 Discuss the indications and adverse effects of anticholinergics in treating asthma and COPD.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

9) A client is newly diagnosed with asthma. Which information should the nurse include when teaching the client about this condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Drink additional fluids.
2. Eat small, frequent meals.
3. Sleep in a warm room.
4. Complete activity in the morning and rest in the afternoon.
5. Avoid foods high in protein.

Answer: 1, 2

Explanation:

1. Drinking sufficient fluids will help to liquefy and mobilize mucus.
2. Small, frequent meals of calorie- and nutrient-dense foods help to prevent fatigue and maintain nutrition.
3. Cooler room temperatures make breathing easier.
4. Activities and rest should be alternated and balanced.
5. There is no need to avoid foods high in protein.

Page Ref: 610

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning Learning Outcome: 40-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for lower respiratory tract disorders.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

10) A client is prescribed ipratropium (Atrovent). Which question should the nurse ask the client before giving a dose of the medication?

1. "Are you allergic to soy?"
2. "Do you have diabetes mellitus?"
3. "Do you have seizures?"
4. "Do you have gout?"

Answer: 1

Explanation:

1. Ipratropium is contraindicated in clients with hypersensitivity to soy as soya lecithin is used as a propellant in the inhaler.
2. Anticholinergic medications do not impact glucose levels.
3. Anticholinergic medications do not affect seizure disorders.
4. Anticholinergic medications are not contraindicated in clients with gout.

Page Ref: 604

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-5 Discuss the indications and adverse effects of anticholinergics in treating asthma and COPD.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

11) The nurse instructs a client who is prescribed zafirlukast (Accolate). Which client statement indicates teaching was effective?

1. "Zafirlukast will activate my fight-or-flight response."
2. "I can use this medication for acute asthma attacks."
3. "This medication will dilate my airways so I can breathe better."
4. "This decreases the inflammation in my lungs."

Answer: 4

Explanation:

1. Zafirlukast does not stimulate the sympathetic nervous system.
2. Zafirlukast is ineffective for acute asthma attacks.
3. Zafirlukast is not a bronchodilator.
4. Zafirlukast prevents airway edema and inflammation by blocking leukotriene receptors in the airways.

Page Ref: 607

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 40-8 Discuss the indications and adverse effects of leukotriene modifiers in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

12) A client is prescribed montelukast (Singular). Which information should the nurse include when teaching the client about this medication?

1. This prescription is indicated for acute asthma attacks.
2. Montelukast should be taken 30 minutes prior to exercise.
3. Montelukast should not be used in pediatric clients.
4. This prescription has very few side effects.

Answer: 4

Explanation:

1. Montelukast is ineffective for acute asthma attacks.
2. Montelukast should be taken 2 hours before activity.
3. Montelukast is the only prescription approved for pediatric use.
4. Montelukast has very few side effects.

Page Ref: 607

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 40-8 Discuss the indications and adverse effects of leukotriene modifiers in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

13) The nurse is teaching a client prescribed albuterol (ProAir HFA). Which information should the nurse include in the teaching?

1. Administer the prescription 15 to 30 minutes prior to activity.
2. Albuterol can be used for prevention of an asthma attack.
3. Oral solutions can terminate an acute asthma attack.
4. A nebulizer must be used to deliver the prescription.

Answer: 1

Explanation:

1. Albuterol should be administered 15 to 30 minutes prior to activity.
2. Albuterol is not recommended for short-acting prophylaxis.
3. Oral solutions are not used to terminate acute asthma attacks.
4. Only the actuator that comes with the canister should be used to administer the albuterol.

Page Ref: 603

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 40-4 Discuss the indications and adverse effects of beta-adrenergic agonists in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

14) A client receiving ipratropium (Atrovent) plans to stop taking the medication because of the bitter taste left in the mouth after its use. Which response should the nurse make to the client?

1. "A bitter taste may indicate you are experiencing a serious side effect."
2. "This is a common side effect that will go away over time."
3. "You can decrease that side effect by rinsing your mouth after use."
4. "You may be administering too high of a dose."

Answer: 3

Explanation:

1. The client is not experiencing a serious side effect; there is no need to stop the medication.
2. The bitter taste will not go away in time; the client must rinse the mouth.
3. Ipratropium (Atrovent) produces a bitter taste, which may be relieved by rinsing the mouth after use.
4. The dosage amount does not affect the bitter taste that occurs with the use of the prescription.

Page Ref: 604

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation Learning Outcome: 40-5 Discuss the indications and adverse effects of anticholinergics in treating asthma and COPD.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

15) A client is diagnosed with asthma. Which medication should the nurse expect to be prescribed to provide long-term control?

1. Systemic corticosteroids
2. Intermediate-acting beta<sub>2</sub>-adrenergic agonists
3. Anticholinergics
4. Mast cell stabilizers

Answer: 4

Explanation:

1. Systemic corticosteroids are a quick-relief medication.
2. Intermediate-acting beta<sub>2</sub>-adrenergic agonists are a quick-relief medication.
3. Anticholinergics are medications used for quick relief.
4. Mast cell stabilizers are long-term control medications used to treat asthma.

Page Ref: 600

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 40-9 Explain the indications and adverse effects of biologic therapies in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

16) The nurse is reviewing the different categories of asthma medications. Which long-term control medication should the nurse recall that has an anti-inflammatory mechanism of action?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Immunomodulators
2. Methylxanthines
3. Mast cell stabilizers
4. Leukotriene modifiers
5. Inhaled corticosteroids

Answer: 3, 4, 5

Explanation:

1. Immunomodulators have a monoclonal antibody mechanism of action.
2. The mechanism of action for methylxanthines is bronchodilation.
3. Mast cell stabilizers have an anti-inflammatory mechanism of action.
4. Leukotriene modifiers have an anti-inflammatory mechanism of action.
5. Inhaled corticosteroids have an anti-inflammatory mechanism of action.

Page Ref: 601

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for lower respiratory tract disorders.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

17) A client is prescribed the use of a medication through a dry powder inhaler. Which statement should the nurse include when discussing this device with the client?

1. The medication has to be reconstituted prior to administration.
2. The medication is delivered by fine mist.
3. The device is activated by inhalation.
4. The cannister must be pressed for the medication to be delivered.

Answer: 3

Explanation:

1. The use of dry powder inhalers does not require the reconstitution of a drug.
2. Nebulizers deliver medications in fine mist.
3. The client activates the device by inhaling.
4. A metered-dose device requires that the client press the cannister prior to inhaling the drug.

Page Ref: 599

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-2 Explain the operation of devices used to deliver medications to the respiratory tract.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

18) A client is prescribed a leukotriene modifier. Which information should the nurse provide to the client about this medication?

1. Leukotriene modifiers treat status asthmaticus.
2. The drugs reduce infection.
3. Leukotriene modifiers treat bronchodilation in asthma.
4. The drug is used for prophylaxis of asthma symptoms.

Answer: 4

Explanation:

1. Leukotrienes are not used for treatment of status asthmaticus.
2. Leukotrienes do not reduce infection.
3. Anticholinergics are bronchodilators.
4. Leukotriene modifiers are used primarily for prophylaxis and reducing inflammatory components.

Page Ref: 607

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 40-8 Discuss the indications and adverse effects of leukotriene modifiers in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

19) The nurse instructs a client about albuterol (VoSPire ER). Which client statement indicates

that additional teaching is required?

1. "This is a short-acting beta agonist."
2. "The effects can last up to 12 hours."
3. "I can use this for chronic asthma."
4. "I can use this as needed for acute episodes."

Answer: 3

Explanation:

1. Albuterol is a short-acting beta agonist that is frequently used for aborting or terminating an acute asthma attack. Asthma has an inflammatory and a bronchoconstriction component.
2. The long-acting oral medication can last up to 12 hours.
3. Albuterol is used to treat acute episodes of asthma, not chronic asthma.
4. Albuterol is a short-acting beta agonist that is used as needed for acute episodes of asthma.

Page Ref: 603

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 40-4 Discuss the indications and adverse effects of beta-adrenergic agonists in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

20) A client is experiencing a fungal infection of the throat. Which medication should the nurse suspect has caused the client's infection?

1. Methylxanthines
2. Inhaled beta-adrenergic agonists
3. Mast cell inhibitors
4. Inhaled corticosteroids

Answer: 4

Explanation:

1. Methylxanthines do not cause fungal infection.
2. Beta-adrenergic agonists can cause throat irritation, but not an infection.
3. Mast cell inhibitors do not cause fungal infection.
4. Glucocorticoids weaken the immune system and cause candidiasis of the throat.

Page Ref: 606

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-7 Discuss the indications and adverse effects of corticosteroids in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

21) A client takes an asthma medication that is a beta-adrenergic agonist. Which condition should

the nurse identify that is an adverse effect of this medication?

1. Bradycardia
2. Constipation
3. Tachycardia
4. Runny nose

Answer: 3

Explanation:

1. Beta-adrenergic agonists cause tachycardia, not bradycardia.
2. Diarrhea can occur with some leukotrienes.
3. Tachycardia is common, along with restlessness.
4. Dry mucous membranes can occur.

Page Ref: 603

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in

care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-4 Discuss the indications and adverse effects of beta-adrenergic agonists in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

22) The nurse is explaining the process of respiration to a client. Which information should the nurse include?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Moving air in and out of the lungs is called ventilation."
2. "The smooth muscle in the alveoli helps to pull air into the lungs."
3. "Exchange of oxygen and carbon dioxide occurs across a thin capillary membrane."
4. "Respiration is not effective without perfusion."
5. "Your basic respiratory drive is determined by your brain."

Answer: 1, 3, 4, 5

Explanation:

1. Ventilation is the process of moving air into and out of the lungs.
2. Alveoli is not made up of smooth muscle.
3. The blood stays in capillaries. A thin membrane separates the airways from capillaries.
4. Perfusion is the blood flow through the lungs. Without this blood flow, the oxygen—carbon dioxide exchange does not take place.
5. The rate is determined by neurons in the brainstem and can be affected by a number of factors.

Page Ref: 598

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 40-1 Identify the role of bronchiolar smooth muscle in regulating pulmonary ventilation.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

23) A client with chronic bronchitis is surprised to learn of developing chronic obstructive pulmonary disease (COPD) and possibly emphysema. Which response should the nurse make?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Are you certain you do not have asthma?"
2. "Chronic bronchitis has no relation to COPD."
3. "COPD is either asthma, chronic bronchitis, or emphysema or a combination of these disorders."
4. "As COPD progresses, it becomes emphysema."
5. "Both diagnoses are correct."

Answer: 3, 4, 5

Explanation:

1. There is no reason to ask this question. The client with chronic bronchitis will have a COPD diagnosis.
2. The three specific COPD conditions are asthma, chronic bronchitis, and emphysema.
3. The three specific COPD conditions are asthma, chronic bronchitis, and emphysema.
4. COPD is progressive, with the terminal stage being emphysema.
5. Chronic bronchitis is a form of COPD, so both diagnoses are plausible.

Page Ref: 608

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-10 Identify medications used for COPD and their adverse effects.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

24) A client with chronic obstructive pulmonary disease (COPD) asks why smoking cessation needs to occur since there is already lung damage. Which response should the nurse make?

1. "If you stop smoking, your lungs have a good chance of improving quickly."
2. "Your symptoms may be lessened if you aren't smoking."
3. "You should at least try because smoking is associated with other diseases."
4. "If you stop smoking, the disease process will not advance."

Answer: 2

Explanation:

1. Depending on the extent of damage, the client's lungs may not get better at all but may just stop getting worse.
2. Smoking cessation has been shown to result in fewer respiratory symptoms.
3. Smoking cessation has been shown to slow the progression of COPD and decrease the risk of other diseases from occurring.
4. Smoking cessation has been shown to slow the progression of COPD.

Page Ref: 609

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 40-10 Identify medications used for COPD and their adverse effects.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

25) A client has been prescribed a leukotriene modifier. Which assessment finding would cause the nurse to question this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A client who is 72 years old
2. Type 2 diabetes
3. A client with chronic kidney disease
4. A client with chronic hepatitis C
5. A client with a history of a cerebrovascular accident 2 years ago

Answer: 1, 4

Explanation:

1. Clients who are older than age 65 have been found to experience an increased frequency of infections when taking leukotriene modifiers.
2. A leukotriene modifier can be prescribed safely to a client with type 2 diabetes.
3. The drug can be prescribed safely to a client with chronic kidney disease.
4. Significant hepatic dysfunction is a contraindication to this medication, as it is extensively metabolized by the liver.
5. There is no contraindication for the use of a leukotriene modifier for a client with history of cerebrovascular accident.

Page Ref: 607

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 40-8 Discuss the indications and adverse effects of leukotriene modifiers in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

26) A young child is diagnosed with asthma. Which assessment question should the nurse ask the parents?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Has your child eaten any new foods?"
2. "Does anyone smoke in the home?"
3. "Have any chemicals been used in your home?"
4. "Has your child recently traveled to any warm climates?"
5. "Have you changed the laundry soap recently?"

Answer: 1, 2, 3, 5

Explanation:

1. Some food sources are associated with triggering asthma.
2. Cigarette smoke can trigger asthma.
3. Chemicals used in the home are a common trigger for asthma.
4. Warm climates are not associated with the development of asthma.
5. Changes in household chemicals may be related to the onset of asthma.

Page Ref: 600

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for lower respiratory tract disorders.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

27) The nurse is preparing a plan of care for a client with asthma. Which food should the nurse identify that can trigger asthma?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cured meats
2. Dairy products
3. Grapefruit juice
4. Nuts
5. Shellfish

Answer: 1, 2, 4, 5

Explanation:

1. The sulfites in cured meats may trigger asthma.
2. Dairy products may trigger asthma.
3. Grapefruit juice is not a known trigger for asthma.
4. Nuts may trigger asthma.
5. Shellfish may trigger asthma.

Page Ref: 600

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 40-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for lower respiratory tract disorders.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

28) A client taking albuterol (Proventil) reports fatigue and palpitations. Which laboratory test should the nurse monitor for this client?

1. Amylase
2. Electrolytes
3. Hemoglobin
4. Arterial blood gases

Answer: 2

Explanation:

1. Albuterol does not affect amylase.
2. It can cause hypokalemia; potassium is an electrolyte.
3. Albuterol does not cause bleeding.
4. The client may have arterial blood gases drawn to check asthma status, but this test is not indicated by fatigue and palpitations.

Page Ref: 603

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-4 Discuss the indications and adverse effects of beta-adrenergic agonists in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

29) A young child is prescribed a corticosteroid as treatment for asthma. Which parameter should the nurse monitor in this child?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Height
2. Bone density
3. IQ
4. Weight
5. EKG

Answer: 1, 2, 4

Explanation:

1. Corticosteroids can affect growth in children.
2. Corticosteroids can affect bone density in adults.
3. Corticosteroids does not affect IQ.
4. Corticosteroids can affect growth in children.
5. Corticosteroids does not affect EKG readings.

Page Ref: 606

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 40-7 Discuss the indications and adverse effects of corticosteroids in treating asthma.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

30) The nurse instructs a client diagnosed with asthma. Which client statement indicates further teaching is required?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My albuterol inhaler should be taken routinely to prevent asthma attacks."
2. "I should plan to take a corticosteroid for the rest of my life."
3. "My cromolyn inhaler (Intal) will help prevent an asthma attack."
4. "I'll use my montelukast (Singulair) inhaler every day."
5. "My therapy will include both oral and inhaled drugs."

Answer: 1, 2, 4

Explanation:

1. Albuterol inhalers are used as rescue medications.
2. Corticosteroids are short-term drugs.
3. Cromolyn (Intal) is a mast cell stabilizer and will help prevent asthma attacks.
4. Montelukast (Singulair) is an oral drug.
5. Therapy will include both oral and inhaled drugs.

Page Ref: 603, 606, 607

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 40-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for lower respiratory tract disorders.

MNL Learning Outcome: Examine drugs used for asthma and other pulmonary disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 41 Drugs for Peptic Ulcer Disease**

1) The nurse instructs a client about intrinsic factor. Which client statement indicates teaching was effective?

1. "Intrinsic factor is secreted by the chief cells of the stomach."
2. "Intrinsic factor is necessary for absorption of vitamin B<sub>6</sub>."
3. "Intrinsic factor aids in the secretion of mucus to protect the stomach."
4. "Intrinsic factor is necessary for absorption of vitamin B<sub>12</sub>."

Answer: 4

Explanation:

1. Chief cells secrete pepsinogen and rennin, not intrinsic factor.
2. Intrinsic factor is necessary for the absorption of vitamin B<sub>12</sub>, not B<sub>6</sub>.
3. Intrinsic factor does not aid in the secretion of mucus in the stomach.
4. Parietal cells secrete intrinsic factor, which is essential for the absorption of vitamin B<sub>12</sub>.

Page Ref: 616

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 41-1 Describe the major anatomic structures of the upper gastrointestinal tract.  
MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

2) A client with a peptic ulcer colonized with *H. pylori* asks how the prescription of bismuth (Pepto-Bismol) will help them. Which information should the nurse give to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Bismuth increases stomach acid to help kill bacteria."
2. "Bismuth helps prevent the side effects of antibiotics."
3. "Bismuth is effective for inhibiting bacterial growth."
4. "Bismuth keeps bacteria from sticking in your stomach."
5. "Bismuth helps relieve ulcer-related constipation."

Answer: 3, 4

Explanation:

1. Bismuth does not increase stomach acid.
2. Bismuth does not prevent the side effects of antibiotics.
3. Bismuth compounds are added to the antibiotic regimen to inhibit bacterial growth.
4. Bismuth compounds prevent *H. pylori* from adhering to the gastric mucosa.
5. Bismuth is used to relieve diarrhea, not constipation.

Page Ref: 623

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 41-9 Explain the pharmacologic strategies for eradicating *Helicobacter pylori*.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

3) The nurse reviews information received about clients during hand-off communication. Which client does the nurse determine is at risk for peptic ulcer disease?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A client with decreased intrinsic factor
2. A client with Type O blood
3. A client that smokes
4. A client experiencing excessive psychological stress
5. A client with a low-fiber diet

Answer: 2, 3, 4

Explanation:

1. A client with decreased intrinsic factor does not place them at risk for a peptic ulcer disease.
2. Risk factors for peptic ulcer disease include having Type O blood.
3. Risk factors for peptic ulcer disease include smoking.
4. Risk factors for peptic ulcer disease include psychological stress.
5. A low-fiber diet does not place a client at risk for peptic ulcer disease.

Page Ref: 617

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-3 Identify causes, signs, and symptoms of peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

4) A client asks why esomeprazole (Nexium) works better than cimetidine (Tagamet). Which response should the nurse make to the client?

1. "It is about the same but a lot cheaper than cimetidine."
2. "It decreases acid in your stomach better than cimetidine."
3. "It is about the same but has fewer side effects than cimetidine."
4. "It is not as effective as cimetidine but kills bacteria better."

Answer: 2

Explanation:

1. Esomeprazole is not cheaper than cimetidine.
2. Proton-pump inhibitors reduce acid secretion to a greater extent than H<sub>2</sub>-receptor antagonists and have a longer duration of action.
3. Esomeprazole does not have fewer side effects than cimetidine.
4. Esomeprazole is more effective than cimetidine but will not kill bacteria.

Page Ref: 618

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-6 Describe the indications and adverse effects for proton pump inhibitors.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

5) The nurse is assessing a client. Which finding should the nurse associate with a duodenal ulcer?

1. Nausea and lower-right-quadrant abdominal pain
2. Burning pain several hours after eating a meal
3. Anorexia and weight loss
4. Nausea and vomiting

Answer: 2

Explanation:

1. Nausea and lower-right-quadrant abdominal pain are more likely associated with appendicitis.
2. Duodenal ulcers are associated with burning upper abdominal pain 1 to 3 hours after a meal.
3. Anorexia and weight loss are more common with gastric, not duodenal, ulcers.
4. Duodenal ulcers are not associated with nausea and vomiting.

Page Ref: 617

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-3 Identify causes, signs, and symptoms of peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

6) The nurse instructs a client about peptic ulcer disease (PUD). Which client statement indicates teaching was effective?

1. "I will limit my intake of caffeine products."
2. "I will take ibuprofen for my headaches."
3. "I will drink more milk and limit spicy foods."
4. "I will join a gym and increase my exercise."

Answer: 1

Explanation:

1. Caffeine is a risk factor for peptic ulcer disease (PUD), so limiting caffeine will be beneficial in the treatment of peptic ulcer disease (PUD).
2. Nonsteroidal anti-inflammatory drugs (NSAIDs) are a primary cause of peptic ulcer disease (PUD).
3. Milk can increase acid production, and spicy foods are not an issue with peptic ulcer disease (PUD).
4. There is no correlation between exercise and the management of peptic ulcer disease (PUD).

Page Ref: 617

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 41-3 Identify causes, signs, and symptoms of peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

7) A client reports stomach pain is completely relieved after eating and returns a couple hours after the meal. Which condition should the nurse suspect the client is experiencing?

1. Gastric ulcer
2. Crohn disease
3. Ulcerative colitis
4. Duodenal ulcer

Answer: 4

Explanation:

1. Although the pain of a gastric ulcer is relieved by food, the pain may continue even after a meal.
2. Ulceration in the distal small intestine is known as Crohn disease and is not associated with pain relief after a meal.
3. Ulcerative colitis is erosions in the large intestine and is not associated with pain relief after a meal.
4. A duodenal ulcer is characterized by gnawing or burning upper abdominal pain that occurs 1 to 3 hours after a meal. The pain is worse when the stomach is empty and often disappears on ingestion of food.

Page Ref: 617

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-3 Identify causes, signs, and symptoms of peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

8) A client reports taking proton-pump inhibitors (PPIs) for "several months." Which condition should the nurse identify as a complication for the long-term use of this medication?

1. Anemia
2. Osteoporosis
3. Hypertension
4. Intestinal irritation

Answer: 2

Explanation:

1. Anemia is not a consequence of long-term use of PPIs.
2. Long-term use of PPIs increases risk of osteoporosis.
3. Hypertension is not a consequence of long-term use of PPIs.
4. Intestinal irritation is not a consequence of long-term use of PPIs.

Page Ref: 618

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-6 Describe the indications and adverse effects for proton pump inhibitors.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

9) A client with peptic ulcer disease (PUD) and positive for *Helicobacter pylori* asks why combination therapy is used for treatment. Which information should the nurse provide to the client?

1. Combination therapy has the best outcomes when antibiotics are used with antacids.
2. Combination therapy has the best outcomes when antibiotics are used with proton-pump inhibitors (PPIs).
3. The use of sucralfate (Carafate) along with antibiotics is the best combination therapy for PUD.
4. Various antibiotics are used to eradicate the bacteria that are responsible for development of PUD.

Answer: 2

Explanation:

1. Combination therapy has the best outcomes when antibiotics are used with PPIs, not with antacids.
2. Combination therapy has the best outcomes when antibiotics are used with PPIs.
3. Combination therapy has the best outcomes when antibiotics are used with PPIs, not with sucralfate.
4. More than one antibiotic may be used but treatment is more effective when antibiotics are used with a PPI.

Page Ref: 622

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-9 Explain the pharmacologic strategies for eradicating *Helicobacter pylori*.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

10) A client is diagnosed with peptic ulcer disease. Which information should the nurse include when teaching the client about omeprazole (Prilosec)?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Omeprazole (Prilosec) should not be crushed or chewed.
2. Omeprazole (Prilosec) is best taken with yogurt.
3. Omeprazole (Prilosec) is recommended for long-term treatment of peptic ulcer disease.
4. Omeprazole (Prilosec) should be taken before breakfast if possible.
5. Omeprazole (Prilosec) should be administered after meals.

Answer: 1, 4

Explanation:

1. Omeprazole is enteric coated and needs to dissolve in the intestine; it should not be crushed or chewed.
2. Yogurt may help replace beneficial bacteria, but the medication should not be taken with yogurt.
3. Omeprazole is recommended for short-term, not long-term, use.
4. Omeprazole should be administered before breakfast, if possible, when the stomach is empty.
5. Omeprazole should be administered before, not after, meals in order to be most effective.

Page Ref: 620

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 41-6 Describe the indications and adverse effects for proton pump inhibitors.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

11) A client is prescribed an antacid. Which information should the nurse include when teaching the client about this medication?

1. Antacids can be safely administered with H<sub>2</sub>-receptor medications.
2. Antacids can be safely administered with antibiotics.
3. Administer antacids at least 2 hours before other oral medications.
4. Lie down for 30 minutes after taking antacids.

Answer: 3

Explanation:

1. Administering an antacid with a H<sub>2</sub>-receptor antagonist will decrease their absorption.
2. Administering an antacid with antibiotics will decrease the absorption.
3. Administering an antacid with other oral medications can affect the absorption of the other medications; they should be taken 2 hours before other oral medications.
4. There is no need for the client to lie down after taking an antacid.

Page Ref: 622

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

12) A client is taking an H<sub>2</sub>-receptor antagonist as treatment for peptic ulcer disease. Which assessment finding should cause the nurse to be concerned?

1. Constipation
2. Pain 24 hours after treatment
3. Increased diarrhea
4. Headache

Answer: 3

Explanation:

1. Constipation is a common side effect of H<sub>2</sub>-receptor antagonists.
2. Adequate healing of an ulcer takes approximately 4 to 8 weeks.
3. The medications used to treat hyperacidic conditions raise the gastric pH and increase the risk of *Clostridoides difficile*.
4. A headache is the most common symptom associated with the use of ranitidine.

Page Ref: 623

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. |

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-7 Describe the indications and adverse effects for H<sub>2</sub>-receptor antagonists.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

13) A client is taking an antacid containing aluminum hydroxide. Which electrolyte should the

nurse assess in this client?

1. Potassium
2. Phosphate
3. Calcium
4. Sodium

Answer: 2

Explanation:

1. Aluminum hydroxide does not affect potassium level.
2. At high doses, aluminum products bind with phosphate in the gastrointestinal tract and long-term use can result in phosphate depletion.
3. Aluminum hydroxide does not affect calcium level.
4. Aluminum hydroxide does not affect sodium level.

Page Ref: 622

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

14) The nurse is reviewing the antacid that is prescribed for a client. Which substance can be combined with aluminum compounds to increase the effectiveness and reduce the potential for constipation?

1. Phosphate
2. Potassium
3. Magnesium
4. Calcium

Answer: 3

Explanation:

1. Combining aluminum compounds with phosphate does not increase their effectiveness or reduce the potential for constipation.
2. Combining aluminum compounds with potassium does not increase their effectiveness or reduce the potential for constipation.
3. Combining aluminum compounds with magnesium increases their effectiveness and reduces the potential for constipation.
4. Combining aluminum compounds with calcium does not increase their effectiveness or reduce the potential for constipation.

Page Ref: 622

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

15) A client asks how misoprostol (Cytotec) will treat peptic ulcer disease. Which response should the nurse make to the client?

1. "It dissolves into a gel and sticks to your ulcer."
2. "It increases mucus production in your stomach."
3. "It inhibits bacterial growth."
4. "It neutralizes stomach acid."

Answer: 2

Explanation:

1. Sucralfate dissolves into a gel and adheres to the ulcer site.
2. Misoprostol inhibits gastric secretion and stimulates the production of protective mucus.
3. Bismuth inhibits bacterial growth.
4. Antacids neutralize stomach acid.

Page Ref: 624

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-10 Describe the indications and adverse effects for miscellaneous drugs used to treat peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

16) The nurse is reviewing the physiology of the gastrointestinal tract with a client. Into which structure should the nurse explain the pyloric sphincter regulates the flow of food?

1. Small intestine
2. Stomach
3. Esophagus
4. Rectum

Answer: 1

Explanation:

1. The pyloric sphincter regulates food out of the stomach into the small intestine.
2. The pyloric sphincter is where food moves out of the stomach.
3. The cardiac sphincter keeps food from moving back into the esophagus.
4. The pyloric sphincter regulates food out of the stomach, not the rectum.

Page Ref: 616

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 41-1 Describe the major anatomic structures of the upper gastrointestinal tract.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

17) The nurse is preparing a teaching tool about gastrointestinal illnesses. Which condition should

the nurse explain is characterized by an erosion of the mucosal layer of the stomach or duodenum?

1. Diverticulum
2. Crohn disease
3. Hiatal hernia
4. Peptic ulcer

Answer: 4

Explanation:

1. Diverticulum occurs in the large intestine.
2. Crohn disease occurs in the distal small intestine.
3. Hiatal hernias are an outpouching in the esophagus.
4. A peptic ulcer is erosion of the mucosal layer of the stomach or duodenum.

Page Ref: 617, 636

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 41-3 Identify causes, signs, and symptoms of peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

18) The nurse is planning care for a client with gastrointestinal reflux disease (GERD). Which primary goal should the nurse identify for treatment of this condition?

1. Promote ulcer healing
2. Prevent infection
3. Reduce gastric acid secretions
4. Decrease stomach pain

Answer: 3

Explanation:

1. Promoting ulcer healing is not the goal of treatment for GERD.
2. Preventing infection is not the goal of treatment for GERD.
3. The primary goal is to reduce gastric secretions, which produces the reflux.
4. GERD is not associated with pain in the stomach.

Page Ref: 617

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 41-5 Explain treatment goals for the management of peptic ulcer and gastroesophageal reflux disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

19) The nurse reviews data collected from a client during a health history. Which information should the nurse recognize is a risk factor for gastroesophageal reflux disease (GERD)?

1. Obesity

2. Stress
3. Esophageal ulcers
4. Aging

Answer: 1

Explanation:

1. Obesity is a risk factor for GERD.
2. Stress is not a risk factor for GERD.
3. Esophageal ulcers are a complication of GERD.
4. Although most often considered a disease of people older than age 40, GERD also occurs in a significant percentage of infants.

Page Ref: 617

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-4 Identify causes, signs, and symptoms of gastroesophageal reflux disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

20) A client is prescribed calcium carbonate for a peptic ulcer. Which clinical condition should cause the nurse to be concerned?

1. Anemia
2. Diarrhea
3. Kidney stones
4. Gastroesophageal reflux disease (GERD)

Answer: 3

Explanation:

1. Calcium-based products can be used in the presence of anemia.
2. Calcium-based products cause constipation.
3. Calcium-based products place the client at risk for renal calculi.
4. Calcium-based products can be used as part of the treatment of GERD.

Page Ref: 621

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

21) A client is prescribed a proton-pump inhibitor. Which information should the nurse include when describing the mechanism of action of this medication?

1. Neutralizes the acid in the stomach.
2. Blocks the enzyme that secretes acid in the stomach.
3. Blocks H<sub>2</sub> receptors in the stomach.
4. Decreases the amount of *Helicobacter pylori*.

Answer: 2

Explanation:

1. The mechanism of action of proton-pump inhibitors is not to neutralize stomach acid.
2. The mechanism of action of proton-pump inhibitors is to block the enzyme that secretes acid in the stomach.
3. The mechanism of action of proton-pump inhibitors is not to block H<sub>2</sub> receptors in the stomach.
4. The mechanism of action of proton-pump inhibitors is not to decrease the amount of *Helicobacter pylori*.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 41-6 Describe the indications and adverse effects for proton pump inhibitors.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

22) The nurse is instructing a client about gastroesophageal reflux disease (GERD). Which statements should the nurse include in this teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Eliminate the use of alcohol."
2. "Elevate the head of the bed."
3. "Eliminate the use of caffeine."
4. "Take measures to decrease the stress in your life."
5. "Eat meals at least 3 hours prior to sleeping."

Answer: 1, 2, 5

Explanation:

1. A client with GERD should be encouraged to eliminate alcohol to help reduce the symptoms.
2. Elevating the head of the bed will help reduce the symptoms.
3. It is not necessary to eliminate caffeine.
4. Stress does not increase the symptoms of GERD.
5. Small meals should be eaten at least 3 hours before sleep.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 41-5 Explain treatment goals for the management of peptic ulcer and gastroesophageal reflux disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

23) A client is being evaluated for peptic ulcer disease. Which therapy should the nurse anticipate being included in the treatment plan for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Antibiotic treatment
2. Testing for *Helicobacter pylori*
3. Multiple prescriptions
4. Pharmacotherapy for 4 weeks
5. Lifestyle changes

Answer: 2, 3, 4, 5

Explanation:

1. Antibiotics are only necessary if the client has *H. pylori*.
2. The client should be tested for the presence of *H. pylori* prior to the initiation of antibiotic therapy.
3. Multiple medications may be included in the treatment plan.
4. Multiple medications may be included in the treatment plan.
5. Some lifestyle changes such as changing dietary habits and smoking cessation can help therapy be more successful.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 41-5 Explain treatment goals for the management of peptic ulcer and gastroesophageal reflux disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

24) A client is diagnosed with *Helicobacter pylori*. Which information should the nurse include when explaining the development of this condition?

1. "Your immune system is weak."
2. "Your stomach pH is too low."
3. "The bacteria has entered your body somehow."
4. "*H. pylori* naturally lives in your gastrointestinal tract."

Answer: 3

Explanation:

1. *H. pylori* is gram-negative bacteria that has entered the body. It is not specifically associated with a decreased immunity.
2. *H. pylori* is gram-negative bacteria that has entered the body. A low stomach pH is not specifically associated with contracting *H. pylori*.
3. *H. pylori* is gram-negative bacteria that has entered the body.
4. *H. pylori* is gram-negative bacteria that has entered the body but does not naturally reside in the gastrointestinal tract.

Page Ref: 622

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 41-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for peptic ulcer and gastroesophageal reflux diseases.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

25) A client is prescribed aluminum hydroxide (AlternaGEL). Which information should the nurse include when instructing the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. You should expect this medication to take up to 2 days to start taking effect.
2. Take this medication with a glass of milk.
3. You may notice constipation as an effect of this drug.
4. Take this medication at least 2 hours before or after any other medication you are taking.
5. This medication will reduce the acid your stomach produces.

Answer: 3, 4

Explanation:

1. This medication's onset of action is within 20 to 40 minutes.
2. There is no reason for the client to drink milk with this medication.
3. Constipation may be a side effect of this antacid.
4. Absorption may be affected if taken within 2 hours of any other drug.
5. This medication acts to neutralize acid, not to reduce its production.

Page Ref: 621-622

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

26) A client with gastroesophageal reflux disease (GERD) is reluctant to make lifestyle changes. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The damage to your esophagus may result in esophagitis."
2. "Long-term exposure to acid increases risk for esophageal cancer."
3. "Without lifestyle changes, the prescriptions are ineffective."
4. "The lifestyle changes will be easier if you adopt them one at a time and institute them gradually."
5. "You will eventually have difficulty with swallowing if this condition is not treated."

Answer: 1, 2

Explanation:

1. Esophagitis is a possible complication of GERD.
2. Approximately 10% of those with GERD will develop Barrett's esophagus, which is associated with increased risk of cancer.
3. The medications may be somewhat effective even if lifestyle changes are not made.
4. The nurse should not assume the client will perceive the lifestyle changes easier if they are instituted gradually.
5. The nurse cannot assume what will occur if the treatment is not adhered to.

Page Ref: 617

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-4 Identify causes, signs, and symptoms of gastroesophageal reflux disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

27) A client is prescribed medication to treat gastroesophageal reflux disease. Which information should the nurse include when teaching to prevent a *Clostridoides difficile* infection?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Report any episode of diarrhea.
2. Do not treat diarrhea with over-the-counter antidiarrheal drugs.
3. Increase intake of active-culture yogurt.
4. Avoid fatty foods.
5. Increase fluid intake.

Answer: 2, 3

Explanation:

1. The client does not need to report each episode of diarrhea but should report if the amount increases or is frequent or if the stool includes mucus, blood, or pus.
2. Antidiarrheal drugs may cause retention of harmful bacteria.
3. Dairy products containing live active cultures help restore normal flora.
4. Avoidance of fatty foods is not specifically prescribed to treat this condition.
5. Increasing fluid intake is not specifically prescribed to treat this condition.

Page Ref: 623

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 41-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for peptic ulcer and gastroesophageal reflux diseases.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

28) The client treated for gastroesophageal reflux disease (GERD) reports an increase in the frequency of colds and coughs. Which response should the nurse make to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Be sure to get your flu shot."
2. "The medicine you are on for GERD changes your gastric pH."
3. "You need to avoid crowds until your condition is under control."
4. "You may be more susceptible to respiratory infection while taking this medication."
5. "You may be having an allergic reaction to your medicine."

Answer: 2, 4

Explanation:

1. Getting immunized against influenza is important, but the client is not at higher risk for contracting the flu.
2. The prescriptions for GERD change gastric pH, which increases risk for respiratory illnesses.
3. There is no reason to avoid crowds.
4. The prescriptions used to treat hyperacidic conditions raise the gastric pH and impact the body's normal defense mechanisms against respiratory pathogens.
5. A client experiencing an increase in coughs and colds is not having an allergic reaction to the prescription.

Page Ref: 623

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-11 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for peptic ulcer and gastroesophageal reflux diseases.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

29) The nurse is reviewing the use of antacids. For which clinical condition should the nurse recognize self-directed antacid use is not recommended?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Decreased calcium levels
2. Diminished renal function
3. Perimenopause
4. Sodium-restricted diets
5. Coronary artery disease

Answer: 2, 4

Explanation:

1. Calcium antacids are often used as calcium supplements.
2. Self-directed antacid use is not recommended when the renal function is diminished.
3. There is no reason for perimenopausal clients to avoid antacids.
4. Many over-the-counter antacids contain significant amounts of sodium, therefore self-directed antacid use is not recommended.
5. There is no reason for those with coronary artery disease to avoid antacids.

Page Ref: 622

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 41-8 Describe the indications and adverse effects for antacids.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

30) A client asks how metoclopramide (Reglan) will help peptic ulcer disease. Which mechanism of action should the nurse discuss with the client?

1. Neutralizes the stomach acid
2. Decreases the production of hydrochloric acid
3. Increases emptying time of the stomach
4. Relaxes the muscles of the gastrointestinal tract

Answer: 3

Explanation:

1. Metoclopramide does not act to neutralize the stomach acid.
2. Metoclopramide does not decrease the production of hydrochloric acid.
3. Metoclopramide causes muscles in the upper intestine to contract, resulting in faster emptying of the stomach, and blocks food from reentering the esophagus from the stomach, which is of benefit in patients with peptic ulcer disease.
4. Metoclopramide does not relax the muscles of the gastrointestinal tract

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 41-10 Describe the indications and adverse effects for miscellaneous drugs used to treat peptic ulcer disease.

MNL Learning Outcome: Examine drugs used for peptic ulcer disease.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 42 Drugs for Bowel Disorders and Other Gastrointestinal Conditions**

1) The nurse reviews the anatomy and physiology of the gastrointestinal system with a client. Which statement indicates the client understands the function of the large intestine?

1. "The large intestine contains host flora that manufacture vitamin E."
2. "The large intestine absorbs most of the nutrients from food."
3. "The large intestine absorbs water and eliminates stool."
4. "Food travels through the large intestine for 3 to 6 hours."

Answer: 3

Explanation:

1. The large intestine contains host flora that manufacture B-complex vitamins and vitamin K, not vitamin E.
2. The small intestine, not the large intestine, absorbs most of the nutrients from food.
3. Major functions of the large intestine include absorption of water and elimination of stool.
4. Food travels through the large intestine for 12 to 24 hours, not for 3 to 6 hours.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 42-1 Identify major anatomic structures of the lower gastrointestinal tract.  
MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

2) A client asks how constipation develops. Which response should the nurse make to the client?

1. "Too much water has been reabsorbed in the large intestine."
2. "The waste material remains in the colon for too long."
3. "The motility of the intestines is too slow."
4. "The dietary intake is not high in fiber."

Answer: 2

Explanation:

1. The primary reason too much water has been reabsorbed is because the waste material remains in the colon for an extended period, resulting in too much water being reabsorbed, leading to small, hard stools.
2. When the waste material remains in the colon for an extended period, this results in too much water being reabsorbed, leading to small, hard stools.
3. Intestinal motility can contribute to constipation, but it is not the primary reason constipation occurs.
4. Dietary intake of fiber prevents the waste material from remaining in the colon for long periods of time.

Page Ref: 631

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 42-2 Identify conditions frequently associated with constipation.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

3) A client with pancreatitis asks why they are receiving pancrelipase (Pancreaze). Which response should the nurse make about the medication?

1. "The medication will replace the enzymes your pancreas cannot make."
2. "The medication will help promote healing of your pancreas."
3. "The medication will promote digestion of starches and fats."
4. "The medication will help digest all of the food you eat."

Answer: 1

Explanation:

1. Pancrelipase is used as replacement therapy for clients with insufficient pancreatic exocrine secretion.
2. Pancrelipase will not help heal the pancreas.
3. The medication will help digest starches and fats, but this is not the primary reason the client has been prescribed pancrelipase.
4. The medication will help digest food, but this is not the primary reason the client has been prescribed pancrelipase.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 42-10 Explain the use of pancreatic enzyme replacement in the pharmacotherapy of pancreatitis.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

4) A client experiences frequent constipation. Which intervention should the nurse include in the plan of care for the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase dietary protein.
2. Increase the fluid intake.
3. Increase dairy products.
4. Increase dietary fiber.
5. Increase daily physical exercise.

Answer: 2, 4, 5

Explanation:

1. Increasing protein in the diet will not help prevent constipation.
2. Increasing fluid intake can help prevent constipation.
3. Increased dairy products in the diet can cause constipation.
4. Increasing fiber in the diet will help prevent constipation.
5. Increasing exercise will help prevent constipation.

Page Ref: 631

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 42-2 Identify conditions frequently associated with constipation.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

5) A client is scheduled for a colonoscopy. Which bowel preparation should the nurse anticipate being prescribed for the client?

1. Docusate sodium (Colace)
2. Bisacodyl (Dulcolax)
3. Methylcellulose (Citrucel)
4. Sodium biphosphate (Fleet Phospho-Soda)

Answer: 4

Explanation:

1. Docusate sodium is a stool softener and is not appropriate for bowel preparation prior to a colonoscopy.
2. Bisacodyl is a stimulant laxative and is not appropriate for bowel preparation prior to a colonoscopy.
3. Methylcellulose is a bulk-forming laxative and is not appropriate for bowel preparation prior to a colonoscopy.
4. Sodium phosphate is an osmotic saline laxative that is appropriate for bowel preparation prior to a colonoscopy.

Page Ref: 632

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

6) A client has been vomiting for several days. Which acid—base imbalance should the nurse be concerned about for the client?

1. Metabolic acidosis
2. Respiratory alkalosis
3. Metabolic alkalosis
4. Respiratory acidosis

Answer: 3

Explanation:

1. Metabolic acidosis will not occur as a result of vomiting.
2. Respiratory alkalosis will not occur as a result of vomiting.
3. Metabolic alkalosis will result from excessive loss of hydrochloric acid from the stomach brought on by prolonged vomiting.
4. Respiratory acidosis will not occur as a result of vomiting.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-8 Identify common causes of nausea and vomiting.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

7) A client asks how probiotics can be beneficial in the treatment of irritable bowel syndrome. Which response should the nurse make to the client?

1. Probiotics attack infective bacteria in the intestine.
2. Probiotics restore the normal intestinal bacteria.
3. Probiotics decrease the bowel frequency.
4. Probiotics decrease intestinal water absorption.

Answer: 2

Explanation:

1. Probiotics do not attack infective bacteria.
2. Probiotic strains act to restore the normal flora in the intestines.
3. Probiotics do not decrease bowel frequency.
4. Probiotics do not decrease intestinal water absorption.

Page Ref: 638

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-6 Explain the pharmacologic management of irritable bowel syndrome.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

8) The nurse instructs a client about psyllium (Metamucil). Which client statement indicates further teaching is required?

1. "I don't need to drink extra fluids while I take this prescription."
2. "My cholesterol level will be reduced somewhat with this prescription."
3. "This prescription is a lot more natural than other laxatives."
4. "This prescription takes several days to work."

Answer: 1

Explanation:

1. Fluids must be increased when clients use psyllium.
2. Psyllium does help to reduce cholesterol levels.
3. Psyllium is more natural than other laxatives.
4. Psyllium does take several days to work.

Page Ref: 633

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

9) The nurse is reviewing the frequency of the development of constipation. Which client should the nurse identify that is most at risk for constipation?

1. The pediatric client who takes antibiotics for ear infections
2. The elderly client who routinely takes a stimulant laxative twice daily
3. The young client in the hospital for an appendectomy
4. The middle-aged client who uses an enema during periods of travel

Answer: 2

Explanation:

1. The pediatric client is at low risk for constipation.
2. Elderly clients who abuse laxatives are at risk of constipation. Exceeding the recommended dose or frequent laxative use increases the risk of adverse effects and decreases normal peristalsis over time, resulting in laxative dependence.
3. The young client is at low risk for constipation.
4. The middle-aged client is at low risk for constipation.

Page Ref: 631

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-2 Identify conditions frequently associated with constipation.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

10) A client taking diphenoxylate with atropine (Lomotil) for diarrhea asks why the pain is not relieved. Which response should the nurse make to the client?

1. "Diphenoxylate with atropine is not an opioid."
2. "You would really have to take a lot to experience pain relief."
3. "It does provide some relief from the pain associated with diarrhea."
4. "Diphenoxylate with atropine does not have analgesic properties."

Answer: 4

Explanation:

1. Diphenoxylate with atropine is an opioid.
2. The opioid in diphenoxylate with atropine does not have analgesic properties.
3. Diphenoxylate with atropine does not have analgesic properties and will not provide any pain relief associated with diarrhea.
4. Unlike most opioids, diphenoxylate with atropine does not have analgesic properties.

Page Ref: 635

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 42-5 Explain the pharmacologic management of diarrhea.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal

conditions.

11) A client is prescribed ondansetron (Zofran). Which current medication should cause the nurse concern?

1. Warfarin (Coumadin)
2. Haloperidol (Haldol)
3. Metformin (Glucophage)
4. Atenolol (Tenormin)

Answer: 2

Explanation:

1. Warfarin can be taken safely with ondansetron.
2. Haloperidol taken with ondansetron increases the risk of the client developing a prolonged Q-T interval.
3. Metformin can be taken safely with ondansetron.
4. Atenolol can be taken safely with ondansetron.

Page Ref: 642

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-9 Explain the pharmacologic management of nausea and vomiting.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal

conditions.

12) The nurse is preparing a teaching tool about the gastrointestinal tract. In which way should the nurse describe the primary role of the large intestine?

1. Excretes fecal matter
2. Absorbs nutrients
3. Excretes enzymes
4. Controls peristalsis

Answer: 1

Explanation:

1. The large intestine is responsible for reabsorption of water and for fecal excretion.
2. The small intestine absorbs nutrients and drugs.
3. The stomach and small intestine excrete enzymes for digestion.
4. Peristalsis is controlled by the autonomic nervous system.

Page Ref: 630

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 42-1 Identify major anatomic structures of the lower gastrointestinal tract. MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

13) A client is experiencing diarrhea. In which way should the nurse describe the pathophysiology of this condition?

1. It is infrequent uncontrolled passage of stool.
2. It occurs when the large intestine reabsorbs too little water.
3. It is an increase in the amount of bowel movements.
4. It is an increase in frequency and fluidity of bowel movements.

Answer: 4

Explanation:

1. Diarrhea is not an infrequent uncontrolled passage of stool.
2. Diarrhea is not caused by too little fluid being reabsorbed in the large intestine.
3. Diarrhea is not an increase in the amount of bowel movements.
4. Diarrhea is an increase in the frequency and fluidity of bowel movements.

Page Ref: 633

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 42-5 Explain the pharmacologic management of diarrhea. MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

14) A client is taking pancreatic enzyme replacement therapy. For which effect should the nurse monitor for in this client?

1. Headache
2. Dry mouth
3. Nausea and vomiting
4. Sedation

Answer: 3

Explanation:

1. Some anorexiant can cause headache.
2. Antidiarrheal therapy can cause dry mouth.
3. The most frequent adverse effects of pancreatic enzyme replacement therapy include the gastrointestinal symptoms of nausea, vomiting, and diarrhea.
4. Antiemetic therapy can cause sedation and falls.

Page Ref: 644

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-10 Explain the use of pancreatic enzyme replacement in the pharmacotherapy of pancreatitis.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

15) A client is prescribed diphenoxylate with atropine (Lomotil). In which way should the nurse explain the mechanism of action of this medication?

1. Promotes stool passage
2. Blocks dopamine receptors
3. Increases stool formation
4. Decreases peristalsis

Answer: 4

Explanation:

1. Laxatives promote stool passage and increase the size of stool.
2. Antiemetics block dopamine and inhibit vomiting centers.
3. Laxatives increase the size of the stool.
4. Antidiarrheals such as atropine slow peristalsis and allow water reabsorption.

Page Ref: 635

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-5 Explain the pharmacologic management of diarrhea.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

16) The nurse is caring for a client with ulcerative colitis. Which question should the nurse ask the client before giving a dose of sulfasalazine (Azulfidine)?

1. "Do you have any medication allergies?"
2. "Are you experiencing any pain?"
3. "What other prescriptions have you taken for ulcerative colitis?"
4. "Are you currently experiencing any diarrhea?"

Answer: 1

Explanation:

1. The question to ask the client is about medication allergies. Clients that have allergies to sulfonamides or salicylates should not take sulfasalazine.
2. The assessment for pain is important but not the most important question prior to administering sulfasalazine.
3. Assessing previous treatments for ulcerative colitis is important but not the most important question prior to administering sulfasalazine.
4. Assessing the client for diarrhea is important to obtain adequate treatment, but diarrhea is not directly related to the use of sulfasalazine.

Page Ref: 637

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-7 Explain the pharmacologic management of inflammatory bowel disease.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

17) A client is prescribed a stool softener. In which way should the nurse describe the action of this medication?

1. Breaks up fecal material in the colon
2. Decreases gastrointestinal peristalsis
3. Increases water absorption in the stool
4. Increases gastrointestinal peristalsis

Answer: 3

Explanation:

1. Stimulant laxatives break up fecal material.
2. Laxatives do not cause a decrease in peristalsis.
3. Stool softeners cause more water and fat to be absorbed in the stool.
4. Stimulant laxatives increase peristalsis.

Page Ref: 632

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

18) A client with *Clostridioides difficile* reports taking an over-the-counter prescription to stop the diarrhea. Which response should the nurse provide to the client?

1. "If you continue to have diarrhea, contact the clinic."
2. "Follow the dosing on the packaging."
3. "An antidiarrheal can worsen your infection."
4. "You may experience rebound constipation."

Answer: 3

Explanation:

1. Antidiarrheal use is contraindicated in cases of *C. difficile*.
2. Antidiarrheal use is contraindicated in cases of *C. difficile*.
3. Use of antidiarrheals for a client with *C. difficile* will result in the retention of the harmful substance in the body. Antidiarrheal use is contraindicated in cases of diarrhea caused by pseudomembranous colitis (PMS) that results from *C. difficile*. This infection can cause fatal toxic megacolon.
4. Antidiarrheal use is contraindicated in cases of *C. difficile*.

Page Ref: 634

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 42-5 Explain the pharmacologic management of diarrhea.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

19) A client is prescribed sulfasalazine (Azulfidine). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "A headache is a common adverse effect."
2. "You can divide the daily dose throughout the day to decrease the adverse effects."
3. "You may experience infertility from this drug."
4. "You can crush your tablets and mix it in juice."
5. "If you are outdoors, be sure you use a strong sunscreen."

Answer: 1, 2, 5

Explanation:

1. A headache is a common adverse effect associated with the use of sulfasalazine.
2. The daily dosages of sulfasalazine can be divided to lessen the adverse effects.
3. The medication may impair male fertility, which reverses when the drug is discontinued.
4. The extended-release tablets should not be crushed or chewed.
5. Sulfasalazine can cause photosensitivity.

Page Ref: 637

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-7 Explain the pharmacologic management of inflammatory bowel disease.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

20) A client is experiencing nausea and vomiting. Which outcome should the nurse anticipate when the client is treated for these symptoms?

1. Replacing fluids
2. Identifying and eliminating the cause
3. Encouraging the client to lie still
4. Providing the client with soft foods

Answer: 2

Explanation:

1. Replacement of fluids is essential but not the primary treatment.
2. Nausea and vomiting are often due to modifiable conditions. The treatment outcomes for nausea and vomiting focus on removal of the cause, whenever feasible.
3. If the client is vomiting, lying still is difficult and may be dangerous if aspiration occurs.
4. The client should not eat while experiencing nausea and vomiting.

Page Ref: 640

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 42-9 Explain the pharmacologic management of nausea and vomiting.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

21) The nurse is reviewing medications prescribed for a client. For which condition should the nurse identify that a bulk-type laxative is contraindicated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Coronary heart disease
2. Prescribed antibiotic
3. Type 2 diabetes
4. Fecal impaction
5. Pregnancy

Answer: 2, 4, 5

Explanation:

1. Bulk-type laxatives may decrease the blood cholesterol levels, which may be beneficial in decreasing the advancement of coronary artery disease.
2. Bulk-type laxatives may decrease the absorption of antibiotics.
3. Bulk-type laxatives may decrease serum glucose levels in clients with type 2 diabetes; however, this is not considered an adverse outcome.
4. Bulk-type laxatives are contraindicated in clients with a fecal impaction.
5. A client should check with the healthcare provider regarding use during pregnancy.

Page Ref: 633

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

22) A client reports taking loperamide (Imodium) for diarrhea without effectiveness. Which response should the nurse provide to the client?

1. "Are you taking it after every episode of diarrhea?"
2. "Imodium is not very effective against diarrhea."
3. "How much Imodium are you taking daily?"
4. "You may have to take the maximum dose for 2 or 3 days before diarrhea slows."

Answer: 1

Explanation:

1. Loperamide is taken as a 4 mg single dose, followed by 2 mg after each diarrhea episode up to 16 mg/day.
2. Loperamide is indicated for diarrhea.
3. Asking how much loperamide the client is taking per day does not determine when the client is taking the prescription.
4. Diarrhea should slow within a few hours of doses.

Page Ref: 634

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-5 Explain the pharmacologic management of diarrhea.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

23) A client asks what causes inflammatory bowel disease. Which information should the nurse explain to the client?

1. Imbalance of the normal flora
2. Autoimmune response
3. Hyperactive immune response
4. Psychosomatic

Answer: 3

Explanation:

1. Inflammatory bowel disease is not caused by an imbalance of the normal flora.
2. Inflammatory bowel disease is not an autoimmune response.
3. The etiology of IBD remains largely unknown. Several genes involved with immune responses have been identified as being associated with the disorder. It is believed that these defective genes cause hyperactivity of immune responses that result in chronic intestinal inflammation.
4. Inflammatory bowel disease is not a psychosomatic disorder.

Page Ref: 637

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 42-7 Explain the pharmacologic management of inflammatory bowel disease.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

24) A client asks what the difference is between Crohn disease and ulcerative colitis. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Ulcerative colitis can appear anywhere in the gastrointestinal tract.
2. Crohn disease will reoccur after surgery.
3. Crohn disease is more common in smokers.
4. Ulcerative colitis is not associated with any specific ethnic group.
5. Crohn disease most commonly occurs in the terminal ileum.

Answer: 2, 3, 4, 5

Explanation:

1. Ulcerative colitis is limited to the large intestine.
2. Crohn disease tends to reoccur following surgery.
3. Crohn disease is more common in current smokers.
4. Ulcerative colitis is not associated with any specific ethnic group whereas Crohn disease occurs more frequently in Jewish populations of Middle European ancestry.
5. Crohn disease most commonly occurs in the terminal ileum but may appear anywhere in the digestive tract.

Page Ref: 636

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 42-6 Explain the pharmacologic management of irritable bowel syndrome. MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

25) A client wants to control nausea with natural products such as herbal options instead of medications. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Peppermint may be effective."
2. "Melatonin may be helpful in controlling nausea."
3. "Vitamin E oil is sometimes effective for nausea."
4. "Chamomile tea is effective in controlling nausea."
5. "Ginger can be effective for controlling nausea."

Answer: 1, 5

Explanation:

1. Peppermint is effective for treatment of nausea.
2. Melatonin is used to promote sleep.
3. There is no evidence that vitamin E oil is an effective treatment for nausea.
4. Chamomile tea is used to promote relaxation.
5. Ginger is effective in controlling nausea.

Page Ref: 640

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-9 Explain the pharmacologic management of nausea and vomiting.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

26) The nurse is reviewing the physiology of the gastrointestinal tract. Which phrase should the nurse recognize explains the function of the duodenum?

1. Secretes hydrochloric acid
2. Receives chyme from the stomach
3. Performs most of the digestion and chemical absorption
4. Reabsorbs water and vitamins

Answer: 2

Explanation:

1. Hydrochloric acid is secreted in the stomach.
2. The duodenum receives chyme from the stomach and secretions from the pancreas and liver.
3. The jejunum performs most of the digestion and chemical absorption.
4. Reabsorption of water and vitamins occurs in the colon.

Page Ref: 630

Cognitive Level: Remembering

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 42-1 Identify major anatomic structures of the lower gastrointestinal tract.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

27) A client has overdosed on diphenoxylate with atropine (Lomotil). Which medication should the nurse anticipate providing to this client?

1. Beta blocker
2. Naloxone
3. Large volume of normal saline
4. Activated charcoal

Answer: 2

Explanation:

1. A beta blocker is not used to treat an overdose of diphenoxylate with atropine.
2. Naloxone is a narcotic antagonist used to reverse the effects of an opioid overdose.
3. The client will need intravenous access, but administration of a large volume of normal saline is not a treatment for an overdose of diphenoxylate with atropine.
4. Activated charcoal does not reverse the effects of an opioid overdose.

Page Ref: 635

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

28) A client is prescribed a saline cathartic. In which way should the nurse explain the mechanism of action for this medication?

1. Promotes peristalsis by irritating the gastric mucosa
2. Absorbs water and increases the size of the fecal mass
3. Pulls water into the fecal mass creating more watery stool
4. Causes more water and fat to be absorbed into the stool

Answer: 3

Explanation:

1. Stimulant laxatives promote peristalsis by irritating the gastric mucosa.
2. Bulk-forming laxatives absorb water and increase the size of the fecal mass.
3. Cathartics pull water into the fecal mass, creating more watery stool.
4. Surfactant stool softeners cause more water and fat to be absorbed into the stool.

Page Ref: 631

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

29) A client is prescribed a stool softener for constipation. Which information should the nurse include when teaching the client about this medication?

1. "Continue to take this medication until your stool is very loose and diarrhea-like."
2. "If your discomfort gets worse, return to the clinic."
3. "This medication should work within 12 hours."
4. "If you do not have a bowel movement by tomorrow, return to the clinic."

Answer: 2

Explanation:

1. There is no reason to take this medication until loose stools occur.
2. A client that is experiencing increased discomfort requires further assessment.
3. The medication may take 2 or 3 days to work.
4. Instructing the client to return to the clinic within 24 hours of taking a stool softener is too soon to evaluate the therapy.

Page Ref: 632

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-3 Explain the mechanisms of agents used as laxatives.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

30) A client is prescribed scopolamine for motion sickness. Which information should the nurse include when teaching the client about this medication?

1. Take an initial dose of the medication 1 day prior to travel.
2. Limit periods of movement after you take the medication.
3. Take the medication 20 to 60 minutes prior to travel.
4. Take the medication in the evening or at bedtime.

Answer: 3

Explanation:

1. The medication should be taken 20 to 60 minutes prior to travel.
2. It is not necessary to limit periods of movement after the client takes the medication.
3. The medication should be taken 20 to 60 minutes prior to travel.
4. The medication is not taken in the evening or at bedtime. It is taken before travel.

Page Ref: 640

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 42-9 Explain the pharmacologic management of nausea and vomiting.

MNL Learning Outcome: Examine drugs used for bowel disorders and other gastrointestinal conditions.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 43 Drugs for Nutritional Disorders**

1) A client has a low vitamin A level but does not want to take supplements. Which foods high in vitamin A should the nurse recommend to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Eggs
2. Butter
3. Whole milk
4. Dark, leafy vegetables
5. Lean red meat

Answer: 1, 2, 3, 4

Explanation:

1. Eggs are high in vitamin A.
2. Butter is high in vitamin A.
3. Whole milk is high in vitamin A.
4. Dark, leafy vegetables are high in vitamin A.
5. Lean red meat is not high in vitamin A.

Page Ref: 650

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 43-5 Identify indications and adverse effects of fat-soluble vitamins.  
MNL Learning Outcome: Examine drugs used for nutritional disorders.

2) A client asks why a multivitamin is being prescribed. Which information should the nurse include in the discussion?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Small amounts of vitamins are needed for health.
2. Vitamins will heal many illnesses.
3. Vitamins are inorganic compounds that are not always stored in the body.
4. Your body cannot synthesize most vitamins.
5. Vitamins are needed for growth and maintenance of normal metabolic processes.

Answer: 1, 4, 5

Explanation:

1. Vitamins are organic compounds. They are needed for health.
2. Vitamins are great nutritional support, but there are very few illnesses that vitamins will heal.
3. Vitamins are organic compounds and many are stored in the body.
4. Only vitamin D can be synthesized.
5. Vitamins are needed for growth and maintenance of normal metabolic processes.

Page Ref: 648

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 43-1 Describe the role of vitamins in maintaining wellness.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

3) The nurse notes a client is prescribed orlistat (Alli). Which condition should the nurse recognize the prescription is treating?

1. Obesity
2. Malnutrition
3. Malabsorption syndrome
4. Overnutrition

Answer: 1

Explanation:

1. Orlistat is prescribed for the treatment of obesity in combination with a reduced-calorie diet and exercise.
2. Orlistat is not used to treat malnutrition.
3. Orlistat is not used to treat malabsorption syndrome.
4. Orlistat is not used to treat overnutrition.

Page Ref: 662

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-13 Describe the types of drugs used in the short-term management of obesity.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

4) The nurse reviews the medical records for a group of clients. Which client should the nurse identify that is at greatest risk for developing vitamin deficiencies?

1. A client newly prescribed phenytoin (Dilantin) for the treatment of epilepsy
2. A client taking oral contraceptives for birth control
3. A client who eats a well-balanced diet and does not take a vitamin supplement
4. A pregnant client that is receiving prenatal vitamins

Answer: 2

Explanation:

1. Certain anticonvulsants can be associated with B-complex deficiencies, but the client is just starting therapy so is not at great risk.
2. The use of oral contraceptives is associated with deficiencies of B-complex vitamins.
3. Most nutritional demands can be met with a well-balanced diet.
4. Prenatal vitamins will meet all the vitamin requirements of the pregnant female.

Page Ref: 649

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-3 Explain the purpose of the recommended dietary allowance in preventing vitamin deficiencies.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

5) The nurse is caring for a newborn. Which information should the nurse provide to the parent about a vitamin K injection?

1. "Vitamin K is administered if bleeding is observed."
2. "Vitamin K is only administered to infants that are bottle fed."
3. "Newborns do not have enough intestinal bacteria to synthesize vitamin K."
4. "Newborns are unable to store vitamin K in their body."

Answer: 3

Explanation:

1. Vitamin K is administered prior to waiting for active bleeding to promote clotting of the blood.
2. Vitamin K is not transferred through breast milk. All newborns will need to receive vitamin K to promote clotting.
3. The newborn's small intestine is sterile so there are inadequate bacteria to synthesize vitamin K, which is essential to promote blood clotting.
4. The newborn has not synthesized vitamin K because the small intestine is sterile.

Page Ref: 650

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 43-5 Identify indications and adverse effects of fat-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

6) A client is recovering from bariatric surgery. For which deficiency should the nurse monitor in the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. B-complex vitamins
2. Copper
3. Iron
4. Fat-soluble vitamins
5. Potassium

Answer: 1, 2, 3, 4

Explanation:

1. The client is at risk for B-complex vitamin deficiency.
2. The client is at risk for copper deficiency.
3. The client is at risk for iron deficiency.
4. The client is at risk for fat-soluble vitamin deficiency.
5. The client who has had bariatric surgery is at risk for calcium, not potassium, deficiency.

Page Ref: 651

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-3 Explain the purpose of the recommended dietary allowance in preventing vitamin deficiencies.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

7) A client is receiving topical vitamin A. For which adverse effect should the nurse monitor in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Headache
2. Irritability
3. Drowsiness
4. Delirium
5. Muscle cramps

Answer: 1, 2, 3, 4

Explanation:

1. Headache is an adverse effect of vitamin A.
2. Irritability is an adverse effect of vitamin A.
3. Drowsiness is an adverse effect of vitamin A.
4. Delirium is an adverse effect of vitamin A.
5. Muscle cramps are not an adverse effect of vitamin A.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-5 Identify indications and adverse effects of fat-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

8) The nurse is caring for a client with a history of alcoholism. For which clinical condition should the nurse monitor in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Carbohydrate deficiency
2. Thiamine deficiency
3. Scurvy
4. Vitamin A deficiency
5. Folic acid deficiency

Answer: 2, 3, 4, 5

Explanation:

1. Alcohol is high in carbohydrates.
2. Thiamine deficiency is commonly seen in clients who use alcohol.
3. People who use alcohol are among those at highest risk for vitamin C deficiency or scurvy.
4. Vitamin A deficiency is caused by prolonged dietary deprivation that may occur in alcoholism.
5. Folic acid deficiency is commonly seen in clients who use alcohol.

Page Ref: 649

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-4 Identify general characteristics of vitamin deficiency disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

9) A client with preeclampsia is receiving magnesium sulfate. Which assessment should the nurse make when the client experiences muscle weakness?

1. Oxygen saturation
2. Deep tendon reflexes
3. Peripheral edema
4. Breath sounds

Answer: 2

Explanation:

1. Oxygen saturation is not the priority assessment.
2. Trace or absent deep tendon reflexes indicate the client is experiencing magnesium toxicity. Toxic levels will cause a neuromuscular blockade with resultant respiratory paralysis, heart block, and circulatory collapse.
3. Peripheral edema is not the priority assessment.
4. Breath sounds are important but not as important as the respiratory rate due to the muscular weakness associated with magnesium sulfate toxicity.

Page Ref: 656

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for nutritional disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

10) A client is prescribed total parenteral nutrition (TPN). Which action should the nurse take when caring for this client?

1. Check the feeding tube for residual prior to initiating feedings.
2. Administer the nutrition using an intravenous (IV) pump.
3. Withhold oral medications while the TPN is hanging.
4. Maintain a dedicated percutaneous endoscopic gastrostomy (PEG) tube for the solution.

Answer: 2

Explanation:

1. Checking the tube for residual is performed with enteral feedings, not parenteral feedings.
2. TPN should be administered through an infusion pump so that nutrition delivery can be precisely monitored.
3. The client can continue to receive oral medications while TPN is infusing.
4. Parenteral infusions are done through an IV line, not a PEG tube.

Page Ref: 659

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-11 Compare and contrast types of parenteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

11) A client follows a vegetarian diet. Which information should the nurse include when discussing nutrients with the client?

1. "You are not at risk for vitamin deficiencies."
2. "Seek out dietary sources that include vitamin B<sub>12</sub>."
3. "Increase fluids and fiber to promote the absorption of vitamins."
4. "You may be at risk for a vitamin C deficiency."

Answer: 2

Explanation:

1. Based on the choices of food, a vegetarian diet may not adequately supply the necessary vitamins.
2. Vitamin B<sub>12</sub> is found only in animal sources but may also be added to other food sources. It is important to encourage the client to seek those sources out.
3. Increasing fluids and fiber does not promote the absorption of vitamins.
4. A vegetarian diet is almost never deficient in vitamin C as this vitamin is plentiful in fruits and vegetables.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 43-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for nutritional disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

12) A client asks how much vitamin C should be taken to prevent a cold. Which information should the nurse discuss with the client?

1. "Increase your dietary intake of vitamin C as well as add an oral supplement."
2. "There is no proof that vitamin C prevents the common cold."
3. "Vitamin C is effective if you take the recommended daily allowance."
4. "Vitamin C must be taken prior to the onset of the cold to be most effective."

Answer: 2

Explanation:

1. The ability of vitamin C to prevent the common cold has not been proven.
2. The ability of vitamin C to prevent the common cold has not been proven.
3. The ability of vitamin C to prevent the common cold has not been proven.
4. There is no evidence to support that vitamin C must be taken before a cold in order to be effective.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 43-6 Identify indications and adverse effects of water-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

13) A female client is planning a pregnancy. Which vitamin should the nurse encourage the client to take to help prevent neural tube defects?

1. Thiamine
2. Niacin
3. Riboflavin
4. Folic acid

Answer: 4

Explanation:

1. Folic acid, not thiamine, is the vitamin that is essential for the prevention of neural tube defects in a fetus.
2. Folic acid, not niacin, is the vitamin that is essential for the prevention of neural tube defects in a fetus.
3. Folic acid, not riboflavin, is the vitamin that is essential for the prevention of neural tube defects in a fetus.
4. Folic acid is the vitamin that is essential for the prevention of neural tube defects in a fetus.

Page Ref: 653

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-6 Identify indications and adverse effects of water-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

14) A client is receiving total parenteral nutrition (TPN). Which laboratory value should the nurse monitor in this client?

1. Potassium
2. Blood glucose
3. Liver enzymes
4. Thyroid function

Answer: 2

Explanation:

1. The client's potassium levels are not as likely to be affected by total parenteral nutrition.
2. Hyperglycemia may occur, as total parenteral nutrition solutions contain concentrated amounts of glucose.
3. Total parenteral nutrition does not have an adverse effect on the liver.
4. Total parenteral nutrition does not have an adverse effect on the thyroid function.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for nutritional disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

15) A client asks why vitamins need to be taken. Which response should the nurse make that describes the body's need for vitamins?

1. They are needed in large amounts to support metabolic processes.
2. They are needed in large amounts to promote health.
3. They are needed in small amounts to promote growth.
4. They are needed in small amounts to detoxify chemicals.

Answer: 3

Explanation:

1. Vitamins are needed in small amounts.
2. Vitamins are needed in small amounts.
3. Vitamins are organic compounds required by the body in small amounts for growth and for the maintenance of normal metabolic processes.
4. Vitamins do not specifically detoxify chemicals.

Page Ref: 648

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-1 Describe the role of vitamins in maintaining wellness.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

16) A client is prescribed vitamin C. In which way should the nurse describe a function of this vitamin?

1. Maintains vision
2. Regulates digestion
3. Promotes development of bones and teeth
4. Promotes the manufacturing of platelets

Answer: 3

Explanation:

1. Vision is maintained by vitamin A.
2. Vitamin B helps with metabolic processes, such as digestion.
3. Vitamin C is necessary for the development of bones, teeth, and blood vessels.
4. Vitamin C is not essential for the manufacturing of platelets.

Page Ref: 653

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-1 Describe the role of vitamins in maintaining wellness.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

17) A client is prescribed a vitamin A supplement. In which way should the nurse describe a function of this vitamin?

1. Promotes visual pigment of the eye
2. Has antioxidant properties
3. Promotes blood clotting
4. Facilitates bile excretion

Answer: 1

Explanation:

1. Vitamin A is needed for the precursor retinol for normal vision.
2. Vitamin C and E are antioxidants.
3. Vitamin K is important in the clotting of blood.
4. Vitamin B helps with metabolic processes.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-1 Describe the role of vitamins in maintaining wellness.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

18) A client reports taking many vitamins every day. Which vitamin should the nurse recall that can be toxic if consumed in large amounts?

1. Niacin
2. Vitamin C
3. Vitamin A
4. Folic acid

Answer: 3

Explanation:

1. Niacin is vitamin B and therefore water soluble.
2. Vitamin C is a water-soluble vitamin and cannot be toxic.
3. Vitamin A is lipid soluble and can be toxic in large amounts.
4. Folic acid is a B vitamin and is water soluble.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-2 Compare and contrast the properties of water-soluble and fat-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

19) A client has a cyanocobalamin (B<sub>12</sub>) deficiency. For which condition should the nurse monitor in this client?

1. Pellagra
2. Pernicious anemia
3. Rickets
4. Scurvy

Answer: 2

Explanation:

1. A deficiency of niacin results in pellagra.
2. A cyanocobalamin deficiency can result in pernicious anemia, which may require pharmacotherapy.
3. A vitamin D deficiency results in rickets.
4. A vitamin C deficiency results in scurvy.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-4 Identify general characteristics of vitamin deficiency disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

20) A client is prescribed a calcium supplement. Which substance should the nurse identify that assists with the efficient absorption of calcium?

1. Intrinsic factor
2. Coenzymes
3. Phosphorus
4. Vitamin D

Answer: 4

Explanation:

1. Efficient absorption of calcium is not associated with intrinsic factor.
2. Efficient absorption of calcium is not associated with coenzymes.
3. Efficient absorption of calcium is not associated with phosphorus.
4. Efficient absorption of calcium is assisted by vitamin D.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-3 Explain the purpose of the recommended dietary allowance in preventing vitamin deficiencies.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

21) A client is diagnosed with magnesium toxicity. Which action should the nurse take when caring for this client?

1. Monitor the client's temperature.
2. Assess the client's reflexes.
3. Administer intravenous (IV) calcium gluconate as prescribed.
4. Administer an IV bolus of normal saline as prescribed.

Answer: 3

Explanation:

1. Temperature is not affected with magnesium toxicity.
2. Administering calcium gluconate is the priority intervention to reverse the effects of magnesium.
3. Serious respiratory and cardiac suppression may result from overdose. Calcium gluconate or gluceptate may be administered IV as an antidote.
4. Normal saline cannot reverse the toxicity of magnesium.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-14 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for nutritional disorders.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

22) A client is receiving total parenteral therapy. Which assessment should the nurse make a priority for this client?

1. Fluid overload
2. Overnutrition
3. Electrolyte imbalance
4. Weight loss

Answer: 1

Explanation:

1. A priority nursing assessment for the client receiving parenteral feeding is to monitor for signs of fluid overload. Solutions are hypertonic and may create fluid shifting with resulting changes in intravascular fluid. Monitoring for increased pulse rate and quality, increasing blood pressure, dyspnea, or edema will assist in quickly noting adverse effects.
2. Monitoring the client for overnutrition is important but not a priority assessment for the client receiving parenteral feeding. Overnutrition occurs over a period of time.
3. Monitoring the client for an electrolyte imbalance is important but not a priority assessment for the client receiving parenteral feeding. An electrolyte imbalance may occur over a period of time.
4. Monitoring the client for weight loss is important but not a priority assessment for the client receiving parenteral feeding. Weight loss occurs over a period of time.

Page Ref: 660

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-11 Compare and contrast types of parenteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

23) A client is prescribed enteral nutrition. Which information should the nurse provide to the client about this nutrition?

1. "Nutrition can be administered continuously."
2. "Your nutrition will be administered through your veins."
3. "Enteral feedings allow natural digestion to occur."
4. "Most enteral feeding consists of thinned pureed food."

Answer: 3

Explanation:

1. Enteral products can be given intermittently by bolus or by continuous drip.
2. Parenteral nutrition is administered through the venous system. Enteral nutrition is delivered into the gastrointestinal tract.
3. Since enteral feedings are administered into the gastrointestinal tract, it allows for natural digestion to occur.
4. Most enteral feeding is formula based.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-11 Compare and contrast types of parenteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

24) A client with undernourishment has a functioning gastrointestinal tract. Which enteral formula should the nurse anticipate being prescribed for this client?

1. Modular
2. Polymeric
3. Semi-elemental
4. Elemental

Answer: 2

Explanation:

1. Modular formulas are disease-specific supplements. For example, protein modules can be used to meet the extra nitrogen needs of patients with burns or severe trauma. Other conditions include chronic kidney disease, liver failure, pulmonary disease, or a specific genetic enzyme deficiency.
2. A polymeric formula is used in patients who are generally undernourished but have a fully functioning gastrointestinal tract.
3. Semi-elemental formulas require little or no digestion and are easily absorbed. Indications include malabsorption syndrome, partial bowel obstruction, irritable bowel disease, radiation enteritis, bowel fistulas, and short-bowel syndrome.
4. An elemental formula is used for clients who have malabsorption disorders.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 43-10 Compare and contrast oligomeric, polymeric, modular, and specialized formulations for enteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

25) A client will be receiving intermittent enteral nutrition at home. Which teaching should the nurse provide to the family about this feeding?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Clean the equipment between each feeding administration."
2. "Once mixed, the enteral feeding should hang no more than 8 hours."
3. "Refrigerate any feeding that is not needed."
4. "You may use plain water for scheduled tubing flushes."
5. "Keep the area around the insertion site clean."

Answer: 1, 3, 4, 5

Explanation:

1. The equipment used to provide enteral feedings should be kept clean.
2. Enteral feedings should hang no more than 4 hours.
3. Unused feedings should be refrigerated to prevent spoilage.
4. Plain water is acceptable for tubing flushes.
5. The area around the insertion site should be kept clean.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 43-10 Compare and contrast oligomeric, polymeric, modular, and specialized formulations for enteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

26) The nurse is collecting data with a client. Which data should the nurse use to calculate the client's body mass index?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Age
2. Gender
3. Weight
4. Height
5. Skinfold thickness

Answer: 3, 4

Explanation:

1. Age is not included in the calculation of the body mass index.
2. Gender is not included in the calculation of the body mass index.
3. Weight is used to calculate the body mass index.
4. Height is used to calculate the body mass index.
5. Skinfold thickness is not used to calculate the body mass index.

Page Ref: 661

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-12 Explain causes of obesity and the challenges of weight reduction.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

27) A client is prescribed orlistat (Alli). Which action should the nurse take when the client has dry toast for breakfast?

1. Reduce the dose by half.
2. Hold the pre-breakfast dose.
3. Double the pre-breakfast dose.
4. Give the normal dose.

Answer: 2

Explanation:

1. The dose should not be reduced by half.
2. Orlistat should be held if the meal does not contain fat.
3. The dose should not be doubled.
4. An adjustment of dose is necessary.

Page Ref: 663

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 43-13 Describe the types of drugs used in the short-term management of obesity.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

28) A client is prescribed orlistat (Alli). Which additional medication should cause the nurse concern?

1. Aspirin
2. Warfarin
3. Vitamin C
4. Ibuprofen

Answer: 2

Explanation:

1. Aspirin is not contraindicated with the use of orlistat.
2. The absorption of warfarin is affected by orlistat.
3. Vitamin C is not contraindicated with the use of orlistat.
4. Ibuprofen is not contraindicated with the use of orlistat.

Page Ref: 663

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-13 Describe the types of drugs used in the short-term management of obesity.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

29) The nurse is preparing a teaching tool about vitamins. Which vitamin should the nurse categorize as lipid soluble?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A
2. B
3. C
4. D
5. E

Answer: 1, 4, 5

Explanation:

1. Vitamin A is a lipid-soluble vitamin.
2. Vitamin B is a water-soluble vitamin.
3. Vitamin C is a water-soluble vitamin.
4. Vitamin D is a lipid-soluble vitamin.
5. Vitamin E is a lipid-soluble vitamin.

Page Ref: 650

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 43-2 Compare and contrast the properties of water-soluble and fat-soluble vitamins.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

30) The nurse is preparing to assess a client receiving enteral feedings. Which finding should cause the nurse to be concerned?

1. Dry lips
2. Weight gain of 3 pounds in a week
3. Respiratory rate of 20
4. No change in weight

Answer: 1

Explanation:

1. Dry lips are concerning because they indicate that sufficient water has not been given.
2. An increase or loss of over 1 kilogram in a 24-hour period is concerning and should be reported to the healthcare provider.
3. A respiratory rate of 20 is within the normal range.
4. The client should not experience a significant change in weight.

Page Ref: 660

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 43-10 Compare and contrast oligomeric, polymeric, modular, and specialized formulations for enteral nutrition.

MNL Learning Outcome: Examine drugs used for nutritional disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 44 Drugs for Pituitary, Thyroid, and Adrenal Disorders**

1) The nurse reviews the endocrine system with a new graduate nurse. Which statement indicates that the teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The hypothalamus secretes releasing hormones."
2. "Hormones released by the endocrine system influence every organ in the body."
3. "The hypothalamus is considered the master gland."
4. "The pituitary gland secretes thyroid-stimulating hormone."
5. "The endocrine system is a major controller of homeostasis."

Answer: 1, 2, 4, 5

Explanation:

1. The hypothalamus secretes releasing hormones.
2. Hormones released by the endocrine system influence every organ in the body.
3. The pituitary, not the hypothalamus, is often called the master gland; however, the pituitary and hypothalamus are best visualized as an integrated unit.
4. The pituitary gland secretes thyroid-stimulating hormone.
5. The endocrine system is a major controller of homeostasis.

Page Ref: 669-670

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and

processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 44-1 Describe the general structure and functions of the endocrine system. MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

2) The nurse is reviewing the records of a child being treated for a short stature. Which medication should the nurse expect to be prescribed for this client?

1. Somatotropin (Accretropin)
2. Pegmisovant (Somavert)
3. Octreotide (Sandostatin)
4. Bromocriptine (Cycloset)

Answer: 1

Explanation:

1. Somatotropin is used to treat short stature by stimulating growth.
2. Pegmisovant is used to treat acromegaly.
3. Octreotide is a synthetic growth hormone antagonist used to treat acromegaly.
4. Bromocriptine is used to treat acromegaly.

Page Ref: 673

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-4 Describe indications and actions of hypothalamic and pituitary hormones.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

3) The nurse instructs a client prescribed desmopressin (DDAVP). Which client statement indicates teaching was effective?

1. "This medication is a potent vasodilator."
2. "This medication promotes diuresis in my body."
3. "This medication increases water reabsorption in my kidneys."
4. "This medication suppresses hormone secretion from my posterior pituitary gland."

Answer: 3

Explanation:

1. Desmopressin is a potent vasoconstrictor.
2. Desmopressin promotes water retention.
3. Desmopressin is a synthetic form of human antidiuretic hormone and acts on the collecting ducts in the kidney to increase water reabsorption.
4. Desmopressin does not suppress hormone secretion from the posterior pituitary gland.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 44-4 Describe indications and actions of hypothalamic and pituitary hormones.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

4) A client is diagnosed with Cushing syndrome. Which finding should the nurse expect to assess in this client?

1. Hypotension
2. Tachycardia
3. Weight gain
4. Thin, gaunt appearance of the face

Answer: 3

Explanation:

1. Hypertension is a symptom associated with Cushing disease.
2. Tachycardia is not associated with Cushing disease.
3. Primary symptoms of Cushing syndrome include weight gain.
4. Cushing disease is characterized by a redistribution of fat around the face, resulting in a "moon face" appearance.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-11 Explain the symptoms and pharmacotherapy of Cushing syndrome.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

5) A client is diagnosed with diabetes insipidus. Which symptom should the nurse expect to assess?

1. Increased dilute urine output
2. Hyperglycemia
3. Hyponatremia
4. Fluid retention

Answer: 1

Explanation:

1. Diabetes insipidus results from decreased antidiuretic hormone production, so the client will have increased urine output.
2. Hyperglycemia is not an effect of diabetes insipidus.
3. Hyponatremia results from the volume of fluid that is lost.
4. The client will have increased urine output and fluid volume depletion.

Page Ref: 673

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-4 Describe indications and actions of hypothalamic and pituitary hormones.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

6) The nurse is instructing a client prescribed levothyroxine (Synthroid). Which information

should the nurse include in the teaching?

1. Monitor daily temperature.
2. Assess for decreased appetite.
3. Assess weekly serum blood levels.
4. Assess for altered sleep patterns.

Answer: 4

Explanation:

1. Monitoring daily temperatures is not necessary when taking levothyroxine.
2. The appetite tends to increase for clients receiving levothyroxine.
3. Serum blood levels are not required on a weekly basis with clients receiving levothyroxine.
4. Insomnia is an adverse effect of levothyroxine, so altered sleep patterns must be assessed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 44-6 Explain the symptoms and pharmacotherapy of hypothyroidism. MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

7) A client is diagnosed with hypothyroidism. Which finding should cause the nurse the most concern?

1. Dry skin
2. Generalized weakness
3. Muscle cramps
4. Weight gain

Answer: 4

Explanation:

1. Dry skin is an early sign of hypothyroidism.
2. Generalized weakness is an early sign of hypothyroidism and is likely the reason the client sought treatment.
3. Muscle cramps are an early sign of hypothyroidism.
4. Weight gain is a more severe symptom associated with hypothyroidism and should be reported to the healthcare provider.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment Learning Outcome: 44-5 Compare and contrast the signs and symptoms of hypothyroidism and hyperthyroidism. MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

8) A client is being treated with radioactive iodine (Iodine-131) therapy. Which outcome should

the nurse identify for this client?

1. The client will only temporarily accomplish the euthyroid state.
2. The client should limit fluid intake during the treatment.
3. The client will most likely require thyroid replacement therapy.
4. The client should avoid contact with others until the treatment is over.

Answer: 3

Explanation:

1. Treatment with radioactive iodine usually results in a permanent euthyroid state.
2. The client should increase fluid intake and void frequently to avoid irradiation to gonads from radioactivity in the urine.
3. Clients treated with radioactive iodine therapy often end up with hypothyroidism and require replacement therapy.
4. The client should limit contact with family to 1 hour per day per person until the treatment period is over but should be instructed to avoid contact with young children and pregnant women.

Page Ref: 677

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

9) A client is diagnosed with hyperthyroidism. Which food selection should the nurse instruct the client to avoid?

1. Soy sauce
2. Dairy products
3. High-calorie foods
4. Caffeine-free soda

Answer: 1

Explanation:

1. Foods high in iodine, such as soy sauce, can affect the effectiveness of medication therapy for clients who are diagnosed with hyperthyroidism.
2. Milk products should be included in the diet for the client with hyperthyroidism because they are high in protein and calcium.
3. High-calorie foods are important for clients with hyperthyroidism in order to meet metabolic demands.
4. There is no reason to restrict caffeine-free soda.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

10) A client is receiving hydrocortisone therapy. For which electrolyte disturbance should the nurse assess the client?

1. Hypernatremia and hyperglycemia
2. Hypernatremia and hyperkalemia
3. Hypercalcemia and hyperkalemia
4. Hypoglycemia and hyponatremia

Answer: 1

Explanation:

1. Hydrocortisone may increase serum values for sodium and glucose. Hypernatremia and hyperglycemia occur due to aldosterone effects (mineralocorticoid activity), which cause sodium and fluid retention and elevations of blood glucose as a result of promotion of gluconeogenesis.
2. Hypernatremia and hypokalemia can occur.
3. Hypercalcemia and hypokalemia can occur.
4. Hypoglycemia and hyponatremia do not occur.

Page Ref: 680-681

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-9 Describe the feedback mechanisms regulating corticosteroid secretion.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

11) A client is receiving glucocorticoid therapy. For which adverse effect should the nurse assess the client?

1. Hypothermia
2. Hypotension
3. Hypertension
4. Weight loss

Answer: 3

Explanation:

1. Hypothermia would not be seen; temperature regulation is not related to glucocorticoid therapy.
2. Hypotension would not be expected related to the increased production of angiotensin II.
3. Hypertension would be expected related to the increased production of angiotensin II.
4. Weight loss would not be seen; weight gain is more likely with glucocorticoid therapy.

Page Ref: 680

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-9 Describe the feedback mechanisms regulating corticosteroid secretion.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

12) The nurse instructs a client prescribed glucocorticoid therapy. Which client statement indicates

further teaching is required?

1. "I can take the medication at any time as long as I don't forget it."
2. "I will monitor my blood sugar on a regular basis."
3. "I will eat a diet that is high in protein."
4. "I should take my medication after I have eaten."

Answer: 1

Explanation:

1. The medication must be taken at the same time of day to maintain serum levels.
2. It is important for the client to monitor blood glucose levels with glucocorticoid medications.
3. A high-protein diet is necessary with glucocorticoid medications.
4. Glucocorticoid medications should be taken after eating.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 44-9 Describe the feedback mechanisms regulating corticosteroid secretion.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

13) A client is prescribed intranasal desmopressin (DDAVP). Which teaching should the nurse emphasize with the client?

1. Instruct the client to blow the nose following administration.
2. Be sure to have fresh water at the bedside.
3. Withhold other prescriptions when administering desmopressin to ensure absorption.
4. Direct the spray high into the nasal cavity.

Answer: 4

Explanation:

1. Intranasal sprays of desmopressin should be alternately rotated between nares. There is no need for the client to blow the nose following administration of intranasal desmopressin.
2. Fresh water at the bedside is not required when administering intranasal desmopressin.
3. There is no need to withhold other medications when a client receives intranasal desmopressin.
4. The spray should be directed high into the nasal cavity, not into the nasopharynx.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between

knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 44-4 Describe indications and actions of hypothalamic and pituitary hormones.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

14) The nurse is reviewing negative feedback regulation of thyroid-stimulating hormone (TSH) and thyroid-releasing hormone (TRH). Which action should the nurse identify as the initial step in

this mechanism?

1. Blood levels of thyroid hormone rise.
2. Hypothalamus secretes TRH.
3. T<sub>3</sub> and T<sub>4</sub> are secreted.
4. The anterior pituitary secretes TSH.

Answer: 2

Explanation:

1. When the blood level of thyroid hormone is low, the hypothalamus secretes TRH, which stimulates the anterior pituitary to secrete TSH. This stimulates production and secretion of T<sub>3</sub> and T<sub>4</sub>. As the levels of thyroid hormones rise, the secretion of TSH and TRH is suppressed.
2. When the blood level of thyroid hormone is low, the hypothalamus secretes TRH, which stimulates the anterior pituitary to secrete TSH. This stimulates production and secretion of T<sub>3</sub> and T<sub>4</sub>. As the levels of thyroid hormones rise, the secretion of TSH and TRH is suppressed.
3. When the blood level of thyroid hormone is low, the hypothalamus secretes TRH, which stimulates the anterior pituitary to secrete TSH. This stimulates production and secretion of T<sub>3</sub> and T<sub>4</sub>. As the levels of thyroid hormones rise, the secretion of TSH and TRH is suppressed.
4. When the blood level of thyroid hormone is low, the hypothalamus secretes TRH, which stimulates the anterior pituitary to secrete TSH. This stimulates production and secretion of T<sub>3</sub> and T<sub>4</sub>. As the levels of thyroid hormones rise, the secretion of TSH and TRH is suppressed.

Page Ref: 675

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-5 Compare and contrast the signs and symptoms of hypothyroidism and hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

15) The nurse reviews new medication prescriptions for a client. For which condition should the nurse expect vasopressin (Vasopressin) to treat?

1. Diabetes insipidus
2. Dehydration
3. Electrolyte imbalances
4. Diabetes mellitus

Answer: 1

Explanation:

1. Vasopressin (Vasopressin) is a synthetic drug with a structure identical to that of human antidiuretic hormone used for the treatment of diabetes insipidus.
2. Vasopressin is not used to treat dehydration.
3. Vasopressin is not used to treat electrolyte imbalances.
4. Vasopressin is not used to treat diabetes mellitus.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-4 Describe indications and actions of hypothalamic and pituitary hormones.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

16) The nurse is reviewing the physiology of the endocrine system. Which function should the nurse expect from the thyroid gland?

1. Stimulate growth
2. Control pituitary gland secretion
3. Conserve water in the body
4. Control basal metabolism

Answer: 4

Explanation:

1. Growth hormone stimulates growth.
2. The thyroid gland does not control the pituitary.
3. Antidiuretic hormone conserves water in the body.
4. The function of the thyroid gland is to control basal metabolism and affect every cell in the body.

Page Ref: 673

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-1 Describe the general structure and functions of the endocrine system.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

17) A client is being evaluated for hypothyroidism. Which finding should the nurse expect to assess?

1. Anxiety
2. Bradycardia
3. Tachycardia
4. Weight loss

Answer: 2

Explanation:

1. Anxiety is a symptom of hyperthyroidism.
2. Bradycardia can be a more severe symptom of hypothyroidism.
3. Tachycardia is a symptom of hyperthyroidism.
4. Weight loss is a sign of hyperthyroidism.

Page Ref: 676

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-5 Compare and contrast the signs and symptoms of hypothyroidism and hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

18) The nurse is caring for a client with Graves' disease. Which goal should the nurse identify for the client receiving medication for this condition?

1. Decrease the metabolic processes.
2. Increase synthesis of thyroid hormones.
3. Lower the activity of the thyroid gland.
4. Prevent a thyroid storm from occurring.

Answer: 3

Explanation:

1. The primary goal of treatment is to lower the activity of the thyroid gland, which will decrease the metabolic processes.
2. The primary goal of treatment is to lower the activity of the thyroid gland, which is intended to decrease the synthesis of thyroid hormones.
3. The goal is to lower the activity of the thyroid gland.
4. The primary goal is to lower the activity of the thyroid gland, thus decreasing the risk for a thyroid storm.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

19) A client is diagnosed with Cushing disease. Which assessment finding should the nurse expect to assess in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Nervousness
2. Osteoporosis
3. Confusion
4. Fluid retention
5. Lethargy

Answer: 1, 2, 4

Explanation:

1. Nervousness is a symptom associated with Cushing syndrome.
2. Osteoporosis is a symptom of Cushing syndrome.
3. Confusion and lethargy are associated with Addison disease.
4. Fluid retention is a symptom associated with Cushing syndrome.
5. Confusion and lethargy are associated with Addison disease.

Page Ref: 683

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-11 Explain the symptoms and pharmacotherapy of Cushing syndrome.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

20) A client is prescribed levothyroxine. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "It may take a few weeks for you to see the full benefits from this drug."
2. "Be sure to keep all of your follow-up appointments."
3. "Take this medication at whatever time you eat your evening meal."
4. "Do not start a fiber laxative without first discussing it with your healthcare team."
5. "Take your calcium supplement at least 4 hours after taking this drug."

Answer: 1, 2, 4, 5

Explanation:

1. When given orally, it may take up to 3 weeks for the full effect of the drug to be realized.
2. Serum thyroid-stimulating hormone levels will be drawn frequently as the client begins this therapy and to monitor its effectiveness as therapy continues.
3. The medication should be taken at the same time every day, not at variable mealtimes. It should be taken in the morning to decrease insomnia.
4. Dietary fiber may bind to and decrease the absorption of levothyroxine.
5. Calcium and iron supplements should be taken at least 4 hours after taking levothyroxine to prevent interference with drug absorption.

Page Ref: 678

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 44-6 Explain the symptoms and pharmacotherapy of hypothyroidism.  
MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

21) A client is prescribed methimazole. Which information should the nurse include when teaching the client about this medication?

1. "Occasionally you may feel your heart beating fast."
2. "Call the clinic if you are having trouble sleeping."
3. "It is important for you to schedule periodic liver function tests."
4. "You may experience weight loss while taking this prescription."

Answer: 3

Explanation:

1. Methimazole may result in a slower pulse rate.
2. Methimazole results in less insomnia.
3. Periodic liver function tests should be obtained because methimazole may be hepatotoxic.
4. The client prescribed methimazole may experience weight gain.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

22) The nurse reviews the action of methimazole with a client. Which effect should the nurse instruct the client to report to the healthcare provider?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Unexplained bruising
2. Anxiety
3. Decreased sense of taste
4. Weight loss
5. Intolerance to cold

Answer: 1, 3, 5

Explanation:

1. Adverse effects of methimazole include thrombocytopenia.
2. Methimazole is prescribed to treat hyperthyroidism. Anxiety is a symptom of hyperthyroidism and is expected.
3. An overdose of methimazole will cause signs of hypothyroidism. A decreased sense of taste is associated with hypothyroidism.
4. Methimazole is prescribed to treat hyperthyroidism. Weight loss is a symptom of hyperthyroidism and is expected.
5. An overdose of methimazole will cause signs of hypothyroidism. Intolerance to cold is a severe symptom of hypothyroidism.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

23) The nurse is caring for a client with Cushing syndrome. For which reason should the nurse anticipate mitotane (Lysodren) to be prescribed for this client?

1. Blocks the synthesis of corticosteroids
2. Increases heart rate
3. Improves vision
4. Treats an inoperable tumor of the adrenal gland

Answer: 4

Explanation:

1. Ketoconazole is used to block the synthesis of corticosteroids.
2. Mitotane is not used to increase the heart rate.
3. Mitotane is not used to improve vision.
4. Mitotane is approved to treat an inoperable tumor of the adrenal gland.

Page Ref: 683

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-12 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for pituitary, thyroid, and adrenal disorders.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

24) A client has been on long-term steroid therapy. For which condition should the nurse assess the client?

1. Acute closed-angle glaucoma
2. Muscle wasting
3. Ulcerative colitis
4. Weight loss

Answer: 2

Explanation:

1. Open-angle glaucoma is associated with long-term steroid therapy.
2. Myopathy is associated with long-term steroid therapy, which is characterized by muscle wasting.
3. Peptic ulcers are associated with long-term steroid therapy.
4. Weight gain is most likely to occur with long-term steroid therapy.

Page Ref: 683

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-9 Describe the feedback mechanisms regulating corticosteroid secretion.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

25) A client is prescribed corticosteroids. Which information should the nurse expect to be in the treatment plan to limit serious adverse effects from this medication?

1. Administer steroids every other day.
2. Administer small doses over a period of several weeks.
3. Administer oral doses of the prescription whenever possible.
4. Administer large doses for acute conditions then discontinue the medication.

Answer: 1

Explanation:

1. Administer corticosteroids every other day (alternate-day dosing) to limit adrenal atrophy.
2. Doses should be kept to the lowest amount possible that will achieve a therapeutic effect and prescribed for the amount of time necessary.
3. Oral doses of corticosteroids have the highest risk for systemic effects.
4. For acute conditions, administer large doses for a few days and then gradually decrease the drug until it is discontinued.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-10 Explain the symptoms and pharmacotherapy of adrenal insufficiency.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

26) A client is being treated for a thyroid storm. Which assessment finding should cause the client the most concern?

1. A second dose of propylthiouracil is prescribed.
2. Crackles develop in both lung bases.
3. The client begins to shiver.
4. The client's blood glucose level increases.

Answer: 3

Explanation:

1. The amount of medication required to alter the high fever associated with a thyroid storm is not the most concerning.
2. The development of crackles is not the most concerning.
3. Shivering increases metabolic stress and is the most concerning assessment finding since a goal in the treatment of a thyroid storm is to reduce body temperature.
4. Hypoglycemia can occur during a thyroid storm as a result of the increased metabolic rate.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-7 Explain the symptoms and pharmacotherapy of hyperthyroidism.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

27) A client is being tested with cosyntropin (Cortrosyn) to diagnose adrenocortical insufficiency. Which finding indicates secondary adrenocortical insufficiency has occurred?

1. The client's plasma level of cortisol rises following the injection.
2. The client has carpal spasms following injection.
3. The client's urine cortisol fails to rise following the injection.
4. The client experiences flushing following the injection.

Answer: 1

Explanation:

1. If the adrenal gland responds by secreting corticosteroids after the cosyntropin injection, the pathology lies at the level of the pituitary or hypothalamus (secondary adrenocortical insufficiency).
2. Carpal spasms are not related to this test.
3. The test involves plasma levels of cortisol.
4. Flushing is not associated with the test.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 44-10 Explain the symptoms and pharmacotherapy of adrenal insufficiency.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

28) A client with Addison disease is experiencing nausea, vomiting, and confusion. Which intervention should the nurse anticipate be included in the plan of care?

1. Placement of a nasogastric tube
2. Administration of intravenous hydrocortisone
3. Administration of intravenous diuretic
4. Immediate endotracheal intubation

Answer: 2

Explanation:

1. A nasogastric tube may be necessary but is not the priority.
2. Acute adrenal insufficiency requires immediate treatment with intravenous hydrocortisone.
3. A diuretic may or may not be necessary but is not the priority.
4. Intubation may or may not be necessary but is not the priority.

Page Ref: 682

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 44-10 Explain the symptoms and pharmacotherapy of adrenal insufficiency.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

29) A client is prescribed corticosteroid therapy for an endocrine disorder. Which statement indicates teaching about this medication was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "If I cannot take my medicine for more than 2 days, I will contact my healthcare provider."
2. "I will take my medication at the same time every day."
3. "I will take my medication with food or a meal."
4. "I will avoid dairy products while taking this medication."
5. "If I notice my vision is changing, I will contact my healthcare provider."

Answer: 2, 3, 5

Explanation:

1. The client should not stop the corticosteroid abruptly and should contact the healthcare provider if unable to take the medication for over 1 day.
2. The client should take this medication regularly and at the same time every day.
3. Taking the medication with food or a meal will help to reduce gastric upset.
4. There is no reason to avoid dairy products when taking this medication.
5. Corticosteroids may cause increased intraocular pressure and an increased risk of glaucoma and may cause cataracts.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 44-12 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for pituitary, thyroid, and adrenal disorders.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

30) A client is prescribed long-term corticosteroid therapy. Which information should the nurse include when teaching about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Avoid carbonated beverages.
2. Participate in regular weight-bearing exercise.
3. Avoid taking calcium supplements.
4. Take your prescription with food or milk.
5. Avoid caffeine in the diet.

Answer: 1, 2, 4

Explanation:

1. The client on long-term corticosteroid therapy is at risk for osteoporosis and should avoid carbonated beverages.
2. Regular weight-bearing exercise helps to strengthen the bones.
3. The client should have a sufficient calcium intake, either from foods or from supplements.
4. The client should take the medication with food or milk to avoid gastrointestinal upset.
5. There is no reason to avoid caffeine in the diet.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 44-12 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for pituitary, thyroid, and adrenal disorders.

MNL Learning Outcome: Examine drugs used for pituitary, thyroid, and adrenal disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 45 Drugs for Diabetes Mellitus**

1) A client is diagnosed with type 1 diabetes mellitus. Which information should the nurse include when teaching the client about this disorder?

1. "The exocrine function of the pancreas is not working."
2. "The target cells are resistant to insulin."
3. "Your alpha cells should be able to secrete insulin, but they cannot."
4. "Your pancreas cannot secrete insulin."

Answer: 4

Explanation:

1. Secretion of insulin is an endocrine function.
2. Target cells that are resistant to insulin are descriptive of the pathology for type 2 diabetes.
3. Insulin is secreted by the beta cells of the pancreas.
4. A function of the pancreas is to secrete insulin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 45-2 Explain the etiology and symptoms of type 1 diabetes mellitus. MNL Learning Outcome: Examine drugs used for diabetes mellitus.

2) A client is prescribed to receive 10 units of lispro (Humalog). At which time should the nurse give the client the injection?

1. Thirty minutes before a meal
2. Five minutes before a meal
3. When the meal trays arrive on the floor
4. Fifteen minutes after a meal

Answer: 2

Explanation:

1. Thirty minutes before a meal is too long.
2. The onset of action for insulin lispro (Humalog) is 15 to 30 minutes, so it must be given 5 to 10 minutes before the client eats to prevent hypoglycemia.
3. There is no way of knowing how long it will take for the client to receive a meal tray. This is not the appropriate time to give the medication.
4. The injection is given before a meal.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

3) The nurse reviews medication orders written for a client with diabetes mellitus. Which order should the nurse clarify with the healthcare provider?

1. Lantus insulin 20U BID
2. Administer regular insulin 30 minutes prior to meals
3. Five units of Humalog/10 units NPH daily
4. Metformin (Glucophage) 1000 mg per day in divided doses

Answer: 1

Explanation:

1. Lantus is a long-acting insulin with a duration of 24 hours. Administering it BID (twice a day) places the client at risk for hypoglycemia.
2. Regular insulin is administered 30 minutes before meals.
3. Humalog and NPH (neutral protamine Hagedorn) insulin can be mixed.
4. Metformin is often prescribed in divided doses of 1000 mg per day.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

4) The nurse finds a client with diabetes mellitus type 1 unresponsive. Which action should the nurse take?

1. Call the rapid response team.
2. Administer glucagon.
3. Administer oxygen.
4. Assess the vital signs.

Answer: 2

Explanation:

1. Calling the rapid response team is delaying care.
2. When a client with diabetes mellitus type 1 is found unresponsive, the client should be treated as if they were hypoglycemic. Left untreated, severe hypoglycemia may result in death.
3. Oxygen will not help the client.
4. Vital signs can be taken after the client is treated for hypoglycemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

5) The home health nurse observes a client's 3-month supply of insulin vials are not refrigerated. Which action should the nurse take?

1. Instruct the client that the insulin should be stored away from direct sunlight or excessive heat.
2. Have the client discard the vials.
3. Instruct the client to label each vial with the date when opened.
4. Instruct the client that unopened bottles can be stored for up to 3 months.

Answer: 1

Explanation:

1. Unopened vials can be stored at room temperature but should be stored away from direct sunlight or direct heat.
2. There is no need to discard the vials.
3. Writing the date of opening on the vial is good practice but does not address the need to refrigerate additional vials.
4. Unopened vials of insulin can be stored at room temperature for up to 30 days.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

6) The nurse instructs a client with type 1 diabetes on self-administration of insulin. Which client statement indicates teaching was effective?

1. "I should only use a calibrated insulin syringe for the injections."
2. "I should check my blood sugar immediately prior to administration of insulin."
3. "I should use the abdominal area only for insulin injections."
4. "I should provide direct pressure over the site following the injection."

Answer: 1

Explanation:

1. To ensure the correct insulin dose, a calibrated insulin syringe must be used.
2. There is no need to check blood glucose immediately prior to the injection.
3. Insulin injections should also be rotated to the arm and thigh, not just the abdominal area.
4. There is no need to apply direct pressure over the site following an insulin injection.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

7) The nurse is preparing instructions about self-administration of insulin. Which information should the nurse include about proper subcutaneous injection techniques?

1. Inject the area using a 60-degree angle.
2. Apply a pad to the site after injection.
3. Rotate sites monthly.
4. Massage the site after injection.

Answer: 2

Explanation:

1. The area should be injected using a 90-degree angle.
2. A pad should be applied to the site after an injection.
3. Injection sites should be rotated weekly.
4. The site should not be massaged after an injection.

Page Ref: 696

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

8) The nurse instructs a client about type 2 diabetes mellitus. Which client statement indicates

teaching was effective?

1. "My beta cells just cannot produce enough insulin."
2. "My peripheral cells have increased sensitivity to insulin."
3. "My cells have increased receptor sites, but there is not enough insulin."
4. "My cells are resistant to the insulin my pancreas makes."

Answer: 4

Explanation:

1. Beta cells continue to produce insulin with type 2 diabetes.
2. Peripheral cells have a decreased, not an increased, sensitivity to insulin.
3. There is a decrease in receptor sites with type 2 diabetes.
4. With type 2 diabetes mellitus, the pancreas produces insulin but the cells cannot use it.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 45-4 Explain the etiology and symptoms of type 2 diabetes mellitus. MNL Learning Outcome: Examine drugs used for diabetes mellitus.

9) A client with type 1 diabetes mellitus asks why insulin is not available in pill form. Which response should the nurse make to the client?

1. "The cells cannot recognize insulin in that form."
2. "The insulin could not be properly absorbed."
3. "The insulin is destroyed in the gastrointestinal tract."
4. "The action of insulin would be unpredictable."

Answer: 3

Explanation:

1. Cellular recognition is not the reason that insulin cannot be received PO (by mouth).
2. The insulin would be destroyed if taken by mouth.
3. The gastrointestinal tract destroys insulin, therefore it cannot be given PO.
4. The unpredictability of insulin is not the reason that insulin cannot be received PO.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus. MNL Learning Outcome: Examine drugs used for diabetes mellitus.

10) The nurse reviews the health history of a group of clients. Which client should the nurse identify that has the highest risk of developing type 2 diabetes mellitus?

1. The 38-year-old client who smokes one pack of cigarettes per day
2. The 42-year-old client who is 50 pounds overweight
3. The 50-year-old client who does not get any physical exercise
4. The 56-year-old client who drinks three glasses of wine each evening

Answer: 2

Explanation:

1. Smoking is a serious health concern but is not a specific risk factor for type 2 diabetes mellitus.
2. The majority of people with type 2 diabetes have obesity and dyslipidemias and will need a medically supervised plan to reduce weight gradually and exercise safely.
3. Exercise is important, but a lack of exercise is not as big of a risk factor as obesity.
4. Consuming alcohol is associated with liver disease but is not as big of a risk factor for diabetes as obesity.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-4 Explain the etiology and symptoms of type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

11) The nurse is assessing a client with type 1 diabetes mellitus. Which symptom should the nurse associate with hypoglycemia?

1. Thirst
2. Increased urination
3. Moist skin
4. Nausea

Answer: 3

Explanation:

1. Thirst is a symptom of hyperglycemia.
2. Increased urination is a symptom of hyperglycemia.
3. Moist skin is a symptom of hypoglycemia.
4. Nausea is a symptom of hyperglycemia.

Page Ref: 693

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

12) A client is prescribed metformin (Glucophage) as treatment for type 2 diabetes. Which information should the nurse include when teaching about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Decreases sugar production in the liver
2. Inhibits absorption of carbohydrates
3. Stimulates the pancreas to produce more insulin
4. Reduces insulin resistance
5. Increases energy use

Answer: 1, 4

Explanation:

1. Metformin decreases sugar production (gluconeogenesis) in the liver.
2. Metformin does not inhibit the absorption of carbohydrates.
3. Metformin does not stimulate the pancreas to produce insulin.
4. Metformin reduces insulin resistance.
5. Metformin does not increase energy use.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 45-5 Compare and contrast the drug classes used to treat type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

13) A client with type 1 diabetes mellitus receiving insulin asks if a glass of wine is permitted with dinner. Which response should the nurse make to the client?

1. The alcohol could increase your resistance to insulin.
2. The alcohol could predispose you to hypoglycemia.
3. The alcohol could cause serious liver disease.
4. The alcohol could decrease the metabolism of the insulin.

Answer: 2

Explanation:

1. Alcohol can decrease the resistance to insulin, resulting in hypoglycemia.
2. Alcohol can potentiate hypoglycemic effects in the client.
3. Alcohol can cause liver disease, but the more immediate concern is hypoglycemia.
4. Alcohol can increase the metabolism of insulin, resulting in hypoglycemia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

14) The nurse reviews the laboratory values for a client with type 1 diabetes. Which laboratory test in addition to glucose should the nurse monitor in the client?

1. Potassium
2. Serum amylase
3. AST (aspartate aminotransferase)
4. Sodium

Answer: 1

Explanation:

1. Insulin causes potassium to move into the cell and may cause hypokalemia.
2. There is no need to monitor the serum amylase level.
3. There is no need to monitor the AST level.
4. There is no need to monitor the sodium level.

Page Ref: 694

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

15) A client has a blood glucose level of 563 mg/dL. Which type of insulin should the nurse anticipate providing to the client through the intravenous route?

1. Insulin aspart (NovoLog)
2. Insulin isophane (NPH)
3. Insulin regular (Humulin R).
4. Insulin glargine (Lantus)

Answer: 3

Explanation:

1. Insulin aspart (NovoLog) is not administered intravenously.
2. Insulin isophane (NPH) is not administered intravenously.
3. Regular insulin is the only insulin that can be given intravenously.
4. Insulin glargine (Lantus) is not administered intravenously.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

16) The nurse reviews the physiology of glucose and insulin balance. Which situation triggers the release of insulin in the body?

1. Increase in glycogen
2. Increase in blood glucose
3. Increase in carbohydrates
4. Increase in glucagon

Answer: 2

Explanation:

1. An increase in glycogen does not stimulate the release of insulin.
2. An increase in blood glucose triggers the release of insulin.
3. An increase in carbohydrates does not stimulate the release of insulin.
4. Glucagon acts to increase blood glucose.

Page Ref: 690

Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-1 Explain how the body regulates blood glucose levels.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

17) The nurse is preparing a teaching tool about the different types of diabetes mellitus. Which function of the islets of Langerhans should the nurse emphasize?

1. Secretion of enzymes
2. Exocrine function
3. Secretion of glucagon
4. Absorption of insulin

Answer: 3

Explanation:

1. The islets of Langerhans do not secrete enzymes.
2. Other cells of the pancreas are responsible for exocrine function.
3. The islets of Langerhans are responsible for the secretion of glucagon and insulin.
4. The islets of Langerhans do not absorb insulin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 45-1 Explain how the body regulates blood glucose levels.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

18) A client is being evaluated for diabetes mellitus. Which symptom should the nurse expect to assess in this client?

1. Increased energy
2. Weight gain
3. Fatigue
4. Decreased hunger

Answer: 3

Explanation:

1. Clients with type 1 diabetes do not experience increased energy.
2. Clients with type 1 diabetes typically experience weight loss.
3. Fatigue is a typical sign/symptom of type 1 diabetes due to sustained hyperglycemia.
4. Clients with type 1 diabetes typically experience polyphagia.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-2 Explain the etiology and symptoms of type 1 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

19) The nurse is caring for a client with type 2 diabetes mellitus. For which medication should the nurse include information about biguanides?

1. Metformin HCl (Glucophage)
2. Repaglinide (Prandin)
3. Glipizide (Glucotrol XL)
4. Acarbose (Precose)

Answer: 1

Explanation:

1. Metformin HCl is classified as a biguanide.
2. Repaglinide is classified as a meglitinide.
3. Glipizide is classified as a sulfonylurea.
4. Acarbose is classified as an alpha-glucosidase inhibitor.

Page Ref: 697

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 45-5 Compare and contrast the drug classes used to treat type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

20) A client is prescribed regular insulin before a meal. In which way should the nurse describe the mechanism of action of this medication?

1. Stimulate the pancreas to produce insulin.
2. Promote entry of glucose into the cells.
3. Facilitate the entry of glucose into the bloodstream.
4. Stimulate the pancreas to secrete more insulin.

Answer: 2

Explanation:

1. Oral hypoglycemic drugs, such as glipizide, stimulate the pancreas to produce insulin.
2. The action of regular insulin is to promote entry of glucose into the cells, thereby lowering glucose.
3. Insulin facilitates the entry of glucose into the cell.
4. Oral hypoglycemic drugs, such as glipizide, stimulate the pancreas to secrete insulin.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

21) The nurse is preparing a teaching tool on the development of type 1 diabetes. Which factor

should the nurse identify that contributes to the development of this condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Gender
2. Genetics
3. Ethnicity
4. Environment
5. Immunology

Answer: 2, 4, 5

Explanation:

1. Gender is not a causative factor in the development of type I diabetes mellitus.
2. Type 1 diabetes is caused by the autoimmune destruction of pancreatic beta cells, resulting in lack of insulin secretion. The disease is thought to be an interaction of genetic, immunologic, and environmental factors.
3. Ethnicity is not a causative factor in the development of type I diabetes mellitus.
4. Type 1 diabetes is caused by the autoimmune destruction of pancreatic beta cells, resulting in lack of insulin secretion. The disease is thought to be an interaction of genetic, immunologic, and environmental factors.
5. Type 1 diabetes is caused by the autoimmune destruction of pancreatic beta cells, resulting in lack of insulin secretion. The disease is thought to be an interaction of genetic, immunologic, and environmental factors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 45-2 Explain the etiology and symptoms of type 1 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

22) A client is demonstrating signs and symptoms of diabetes mellitus. Which blood test should the nurse expect to be prescribed to confirm the diagnosis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fasting plasma glucose
2. Random glucose testing
3. Hemoglobin A1C
4. Oral glucose tolerance test
5. Postprandial glucose test

Answer: 1, 3, 4

Explanation:

1. The primary blood tests for diagnosing diabetes include the fasting plasma glucose.
2. Random glucose testing is not used to diagnose diabetes.
3. The primary blood tests for diagnosing diabetes include hemoglobin A1C.
4. The primary blood tests for diagnosing diabetes include the oral glucose tolerance test.
5. A postprandial glucose test is not used to diagnose diabetes.

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Cognitive Level: Remembering

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 45-2 Explain the etiology and symptoms of type 1 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

23) A client with type 2 diabetes is prescribed a biguanide. For which condition should the nurse monitor in this client?

1. Anaphylaxis
2. Hepatotoxicity
3. Lactic acidosis
4. Pancreatitis

Answer: 3

Explanation:

1. Anaphylaxis is a risk factor for clients prescribed incretin enhancers and meglitinides.
2. Sulfonylureas place a client at risk for hepatotoxicity.
3. There is a risk for lactic acidosis for a client receiving biguanide.
4. Clients prescribed incretin mimetics are at risk for pancreatitis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-5 Compare and contrast the drug classes used to treat type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

24) The nurse instructs a client about type 2 diabetes mellitus. Which client statement indicates additional teaching is needed?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The medication that I will be on will help me lose weight."
2. "I can take an oral prescription and will never have to inject myself."
3. "I can increase my body's ability to use the insulin by exercising regularly."
4. "I have several lifestyle changes to make."
5. "I am not at risk for kidney disease like type 1 diabetics."

Answer: 2, 5

Explanation:

1. Some of the prescriptions for type 2 diabetes cause weight gain.
2. As type 2 diabetes progresses, the cells that produce insulin may fail, resulting in the need for insulin. Some prescriptions used in the treatment of type 2 diabetes are injected.
3. The activity of insulin receptors can be increased by physical exercise.
4. Lifestyle changes can help the type 2 diabetic avoid complications.
5. If the diabetes is poorly managed, kidney disease may occur.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 45-5 Compare and contrast the drug classes used to treat type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

25) The nurse is reviewing the laboratory values of a client suspected of having diabetes. Which result should cause the nurse concern?

1. HBA1C level is 8.4%
2. Fasting plasma glucose of 115 g/dL
3. Fasting plasma glucose is 110 g/dL
4. Oral glucose tolerance test of 185 mg/dL

Answer: 1

Explanation:

1. The target level for a HBA1C is 6.5% or less.
2. A fasting plasma glucose of 126 mg/dL or higher indicates diabetes.
3. A fasting plasma glucose of 126 mg/dL or higher indicates diabetes.
4. An oral glucose tolerance test value of 200 mg/dL or higher indicates diabetes.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation  
Learning Outcome: 45-2 Explain the etiology and symptoms of type 1 diabetes mellitus.  
MNL Learning Outcome: Examine drugs used for diabetes mellitus.

26) The nurse is reviewing insulin prescribed for a client. Which insulin should the nurse identify has the longest onset?

1. Insulin detemir (Levemir)
2. Insulin glulisine (Apidra)
3. Insulin lispro (Humalog)
4. Insulin isophane (NPH)

Answer: 1

Explanation:

1. Insulin detemir has an onset of 1.6 hours.
2. Insulin glulisine has an onset of 15 to 30 minutes.
3. Insulin lispro has an onset of 15 to 30 minutes.
4. Insulin isophane has an onset of 1 to 2 hours.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment  
Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.  
MNL Learning Outcome: Examine drugs used for diabetes mellitus.

27) A client receiving insulin reports having low blood glucose the last few mornings. Which additional statement made by the client may be a contributing factor to the decrease in blood glucose?

1. "I have been taking a garlic supplement to prevent colds."
2. "I have been taking St. John's wort to help with my memory."
3. "I have been taking extra vitamin C because so many people have colds."
4. "I have been taking vitamin D to help build up my bones."

Answer: 1

Explanation:

1. Garlic may potentiate the hypoglycemic effect of insulin.
2. St. John's wort is not implicated in this change.
3. Vitamin C is not implicated in this change.
4. Vitamin D is not implicated in this change.

Page Ref: 694

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

28) A client has consistently elevated blood glucose in the morning. Which information should the nurse explain to the client about the dawn phenomenon?

1. "At night your body converts glycogen into glucose, resulting in hyperglycemia."
2. "During the night your body releases hormones that elevate blood glucose."
3. "During the night your blood glucose levels decline and then rise again in the morning."
4. "Your body naturally produces cortisol and growth hormone between 4:00 and 8:00 am."

Answer: 4

Explanation:

1. During the dawn phenomenon the body naturally produces cortisol and growth hormone between 4:00 and 8:00 am, which can result in hyperglycemia.
2. The Somogyi phenomenon occurs when the client has taken excessive insulin, ingested too much alcohol, or missed a meal, which causes a rebound fall in blood glucose. This results in the body releasing hormones during the night that elevate blood glucose.
3. Waning insulin occurs when the amount of insulin in the blood declines, causing blood glucose levels to rise by morning.
4. During the dawn phenomenon the body naturally produces cortisol and growth hormone between 4:00 and 8:00 am, which can result in hyperglycemia.

Page Ref: 694

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 45-3 Describe different types of insulin and the signs of insulin overdose and underdose.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

29) A client taking sulfonylureas for type 2 diabetes reports nausea, flushing, and palpitations. Which question should the nurse ask the client?

1. "Have you taken your medication as directed?"
2. "Did you eat or drink anything new this week?"
3. "Have you increased the amount of fiber in your diet?"
4. "Have you had any alcoholic beverages this week?"

Answer: 4

Explanation:

1. Assessing medication regimen compliance is important but is not the priority.
2. Assessing dietary changes is important but is not the priority.
3. Assessing dietary changes is important but is not the priority.
4. When alcohol is taken with sulfonylureas, some patients experience a disulfiram-like reaction that includes flushing, palpitations, and nausea.

Page Ref: 699

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 45-5 Compare and contrast the drug classes used to treat type 2 diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

30) A client with type 1 diabetes plays soccer and tennis. Which information should the nurse include when teaching this client?

1. "Lower your dose of insulin."
2. "Eat a large meal after a game."
3. "Take an oral hypoglycemic agent on game days rather than insulin."
4. "Eat a meal 1 hour before a game and consume a carbohydrate snack and fluids during the game."

Answer: 4

Explanation:

1. The client should not lower the insulin dose unless the healthcare provider directs to do so.
2. The client's body will have increased glucose demands during games.
3. Oral hypoglycemics are not used to treat clients with type 1 diabetes mellitus.
4. Exercise should occur 1 hour after a meal or after a 10- or 15-gram carbohydrate snack to prevent hypoglycemia. If exercise is prolonged, small, frequent carbohydrate snacks can be consumed every 30 minutes during exercise to maintain blood sugar.

Page Ref: 695

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 45-6 Use the nursing process and clinical judgment measurement model to care for patients receiving pharmacotherapy for diabetes mellitus.

MNL Learning Outcome: Examine drugs used for diabetes mellitus.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 46 Drugs for Disorders and Conditions of the Female Reproductive System**

1) The nurse teaches a class for clients in the first trimester of pregnancy. Which statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Ovulation occurs on approximately Day 21 of the ovarian cycle."
2. "Ovulation is caused by a surge of luteinizing hormone."
3. "Ovulation is caused by a surge of human chorionic gonadotropin."
4. "Follicle-stimulating hormone causes ovarian follicles to develop."
5. "The pituitary gland secretes gonadotropin-releasing hormone."

Answer: 2, 4

Explanation:

1. Ovulation occurs on approximately Day 14, not Day 21, of the ovarian cycle.
2. Ovulation is caused by a surge of luteinizing hormone.
3. Human chorionic gonadotropin is produced during pregnancy; it is not involved with ovulation.
4. Follicle-stimulating hormone causes ovarian follicles to develop.
5. The hypothalamus, not the pituitary gland, secretes gonadotropin-releasing hormone.

Page Ref: 706

Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-1 Describe the roles of the hypothalamus and pituitary in maintaining female reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

2) A client seeks emergency contraception. Which question should the nurse ask the client?

1. "How long ago did you have unprotected sex?"
2. "Did you use a condom during intercourse?"
3. "What kind of birth control have you used in the past?"
4. "Where are you in your monthly cycle?"

Answer: 1

Explanation:

1. The choice of emergency contraception is based on the time frame the intercourse occurred.
2. Asking the client about the use of a condom is irrelevant when choosing emergency contraception.
3. Prior methods of birth control are irrelevant when choosing emergency contraception.
4. The time frame of the monthly cycle is irrelevant when choosing emergency contraception.

Page Ref: 713

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-4 Explain how drugs may be used to provide emergency contraception and to modify pregnancy.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

3) A male client prescribed estrogen for prostate cancer asks why they are receiving a female hormone. Which response should the nurse make to the client?

1. "It shrinks your cancer by causing the cells to die at a faster rate."
2. "It eliminates the testosterone that encourages the growth of the cancer cells"
3. "It suppresses secretion of the androgens that make your cancer grow."
4. "It keeps the cancer cells from receiving nutrients."

Answer: 3

Explanation:

1. Administration of estrogen will suppress androgen secretion.
2. Administration of estrogen will suppress androgen secretion but will not eliminate testosterone.
3. Prostate cancer is usually dependent on androgen for growth; administration of estrogen will suppress androgen secretion.
4. Administration of estrogen will suppress androgen secretion but not prevent nutrients from getting to the cancer cells.

Page Ref: 715

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 46-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders of the female reproductive system and for contraception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

4) The nurse instructs a client prescribed clomiphene (Clomid). Which client statement indicates teaching was effective?

1. "This medication increases my estrogen levels so I can ovulate."
2. "This medication stimulates luteinizing hormone."
3. "This medication stimulates follicle-stimulating hormone."
4. "This medication stimulates gonadotropin-releasing hormone."

Answer: 2

Explanation:

1. Clomiphene stimulates luteinizing hormone (LH); it does not increase estrogen levels.
2. Clomiphene stimulates LH, resulting in the maturation of more ovarian follicles than would normally occur.
3. Clomiphene stimulates LH; it does not stimulate follicle-stimulating hormone.
4. Clomiphene stimulates LH, not gonadotropin-releasing hormone.

Page Ref: 722

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-8 Explain how drug therapy may be used to treat female infertility and endometriosis.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

5) A client is taking hormone replacement therapy (HRT). For which condition should the nurse monitor in this client?

1. Thrombophlebitis
2. Night sweats
3. Colorectal cancer
4. Fractures

Answer: 1

Explanation:

1. HRT puts the client at risk for thrombophlebitis.
2. HRT is prescribed to treat symptoms of menopause, which include night sweats.
3. Women who are taking estrogen—progestin combination HRT experienced a decreased risk of hip fractures and colorectal cancer.
4. Women who are taking estrogen—progestin combination HRT experienced a decreased risk of hip fractures and colorectal cancer.

Page Ref: 713

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-5 Describe the role of drug therapy in the management of menopausal and postmenopausal symptoms.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

6) The nurse is caring for a client in labor who is receiving oxytocin (Pitocin). Which finding indicates the medication should be discontinued?

1. Uterine contractions that are continuous and sustained.
2. The vaginal exam reveals that the client is entering transition.
3. The client reports that the uterine contractions are strong in intensity.
4. Uterine contractions occur every 2 to 3 minutes and last 40 to 60 seconds.

Answer: 1

Explanation:

1. Continuous and sustained uterine contractions may lead to uterine rupture.
2. The infusion should not be stopped when the client enters transition.
3. Contractions that are strong in intensity are no reason to stop the infusion.
4. Uterine contractions every 2 to 3 minutes and lasting 40 to 60 seconds are expected with induction of labor.

Page Ref: 718

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-7 Compare and contrast the use of uterine stimulants and relaxants in the treatment of antepartum and postpartum patients.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

7) A client reports missing several doses of contraceptive pills during the current cycle. Which response should the nurse make to the client?

1. "Please come into the clinic immediately to have a pregnancy test done."
2. "You might consider another form of birth control if you keep missing your pills."
3. "If you have missed fewer than three of your pills, you do not need to worry."
4. "You should use an alternative form of birth control for the rest of this cycle."

Answer: 4

Explanation:

1. There is no reason for the client to have a pregnancy test done at this time.
2. If the client is unable to remember to take the contraceptive pills, then the nurse should review alternative forms of birth control, but this is not the most immediate issue.
3. The client could become pregnant if missing fewer than three of the pills, so this is incorrect advice.
4. If more than one pill is missed, the medication will not be effective and conception could occur, so the client must use an alternative form of birth control for the rest of the current cycle.

Page Ref: 707

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 46-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders of the female reproductive system and for contraception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

8) A client taking oral contraceptives reports vaginal bleeding. Which action should the nurse take?

1. Ask if sexual activity has recently occurred.
2. Tell the client to seek immediate medical attention.
3. Ask if bleeding occurs between cycles or during a regular period.
4. Tell the client not to worry if the bleeding resembles the monthly flow.

Answer: 3

Explanation:

1. Sexual intercourse should not result in vaginal bleeding.
2. There is no need for the client to go to the emergency department at this time.
3. It is important to determine the nature of the oral contraceptive cycle to determine what type of vaginal bleeding is occurring.
4. Telling the client not to worry is condescending; the nurse must collect more data.

Page Ref: 716

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 46-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders of the female reproductive system and for contraception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

9) The nurse instructs a postpartum client about oxytocin (Pitocin). Which client statement indicates teaching was effective?

1. "Oxytocin will increase my uterine contractions."
2. "Oxytocin will promote fluid loss."
3. "Oxytocin will stimulate milk production."
4. "Oxytocin will increase the amount of milk I produce."

Answer: 1

Explanation:

1. Oxytocin administered in the postpartum period causes the smooth muscle of the uterus to contract.
2. Oxytocin does not promote fluid loss.
3. Oxytocin does not stimulate milk production.
4. Oxytocin does not increase milk production.

Page Ref: 718

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-7 Compare and contrast the use of uterine stimulants and relaxants in the treatment of antepartum and postpartum patients.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

10) The nurse is assessing a client with symptoms similar to the early stage of menopause. Which client statement supports the condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I have experienced bouts of depression."
2. "I have a great deal of trouble sleeping."
3. "I have lost interest in having sex."
4. "I have been experiencing headaches."
5. "I have been leaking urine when I cough and sneeze."

Answer: 1, 2, 4

Explanation:

1. Symptoms and conditions associated with early menopause include depression.
2. Symptoms and conditions associated with early menopause include insomnia.
3. Symptoms and conditions associated with midmenopause include a decreased interest in sex.
4. Symptoms and conditions associated with early menopause include headaches.
5. Symptoms and conditions associated with midmenopause include stress urinary incontinence.

Page Ref: 715

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-5 Describe the role of drug therapy in the management of menopausal and postmenopausal symptoms.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

11) A client taking oral contraceptives is experiencing nausea and breast tenderness and is concerned about being pregnant. Which information should the nurse provide to the client?

1. Instruct the client to take an at-home pregnancy test.
2. Instruct the client to come to the clinic to evaluate her birth control prescription.
3. Reassure the client that these symptoms can be a side effect of oral contraceptives.
4. Ask the client if she is premenstrual.

Answer: 3

Explanation:

1. Telling the client to purchase an at-home pregnancy test will only increase her anxiety.
2. There is no reason for the client to come in for an evaluation at this time.
3. It is important for the nurse to educate the client about the side effects of oral contraceptives.
4. Nausea and breast tenderness are most likely side effects of oral contraceptives.

Page Ref: 710

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

12) A client is taking estrogen/progestin oral contraception. Which client behavior should cause the nurse to be concerned?

1. Multiple sexual partners
2. Pharmacological treatment for bipolar disorder
3. Smoking half a pack of cigarettes per day
4. Drinking two glasses of wine a day

Answer: 3

Explanation:

1. Having multiple sexual partners is not a contraindication with the use of oral contraceptives.
2. Pharmacological treatment for bipolar disorder is not a contraindication with the use of oral contraceptives.
3. Cigarette smoking increases the client's risk for a thrombolytic disorder.
4. Drinking two glasses of wine per day is not a contraindication of the use of oral contraceptives.

Page Ref: 711

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

13) A client receiving Depo-Provera as a method of birth control asks how long the prescription will be effective. Which response should the nurse provide to the client?

1. 2 months
2. 6 months
3. 1 year
4. 3 months

Answer: 4

Explanation:

1. Depo-Provera is effective for 3 months.
2. Depo-Provera is effective for 3 months.
3. Depo-Provera is effective for 3 months.
4. Depo-Provera is effective for 3 months.

Page Ref: 708

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

14) The nurse instructs a client prescribed a transdermal patch for contraception. Which client statement indicates teaching was effective?

1. "I will change the patch every 4 weeks."
2. "I will change the patch every 7 days for the first 3 weeks."
3. "I will change the patch every 3 weeks and be patch free week 4."
4. "I will change the patch every 7 days for the first 4 weeks."

Answer: 2

Explanation:

1. The patch is changed more frequently than every 4 weeks.
2. A client prescribed a transdermal patch for contraception will change the patch every 7 days for the first 3 weeks and be patch free for week 4.
3. The patch is changed more frequently than every 3 weeks.
4. There is no patch used for the 4th week.

Page Ref: 708

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

15) Which body structure should the nurse identify that is responsible for the secretion of estrogen?

1. Corpus luteum
2. Anterior pituitary
3. Ovarian follicles
4. Endometrium

Answer: 3

Explanation:

1. Progestins are secreted by the corpus luteum.
2. Gonadotropin-releasing hormone is secreted by the pituitary.
3. Estrogens are secreted by the ovarian follicles.
4. The endometrium is not involved in secretion, since it is a part of the uterus.

Page Ref: 708

Cognitive Level: Remembering

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-1 Describe the roles of the hypothalamus and pituitary in maintaining female reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

16) The nurse reviews the anatomy and physiology of the female reproductive system. Which body structure should the nurse identify that is responsible for the secretion of progesterins?

1. Anterior pituitary
2. Corpus luteum
3. Ovarian follicles
4. Hypothalamus

Answer: 2

Explanation:

1. Gonadotropin-releasing hormone is secreted by the pituitary and the hypothalamus.
2. Progestins are secreted by the corpus luteum.
3. Estrogens are secreted by the ovarian follicles.
4. Gonadotropin-releasing hormone is secreted by the hypothalamus and the pituitary.

Page Ref: 708

Cognitive Level: Remembering

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-1 Describe the roles of the hypothalamus and pituitary in maintaining female reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

17) A client is prescribed progestin. Which condition should the nurse suspect the client is experiencing?

1. Breast cancer
2. Amenorrhea
3. Dysfunctional uterine bleeding
4. Menopause

Answer: 3

Explanation:

1. Estrogen in high doses is used for breast cancer.
2. Estrogen or estrogen progestin is used for amenorrhea.
3. Progestin is the main therapy for dysfunctional uterine bleeding.
4. Estrogen or estrogen progestin is used for menopausal symptoms.

Page Ref: 715

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 46-6 Discuss the uses of progestins in the therapy of dysfunctional uterine bleeding.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

18) A client is prescribed an oxytocic medication. Which outcome should the nurse expect to assess in the client?

1. Slow down uterine contractions.
2. Increase the level of luteinizing hormones.
3. Increase ovarian secretion.
4. Stimulate uterine contractions.

Answer: 4

Explanation:

1. Tocolytics slow uterine contractions.
2. Infertility drugs raise the level of luteinizing hormone.
3. Infertility drugs increase ovarian secretion.
4. Oxytocics, such as oxytocin, stimulate uterine contractions to induce labor.

Page Ref: 718

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-7 Compare and contrast the use of uterine stimulants and relaxants in the treatment of antepartum and postpartum patients.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

19) The nurse is preparing education for a client prescribed an estrogen—progestin combination oral contraceptive. Which information should the nurse include in the teaching?

1. Inhibits ovulation
2. Inhibits the luteinizing hormone
3. Suppresses the follicle-stimulating hormone
4. Suppresses the growth of the follicle

Answer: 1

Explanation:

1. Oral contraceptives inhibit ovulation.
2. Oral contraceptives do not inhibit the luteinizing hormone.
3. Oral contraceptives do not suppress the follicle-stimulating hormone.
4. Oral contraceptives do not suppress the growth of the follicle.

Page Ref: 711

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning  
Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

20) The nurse reviews the action of the biphasic estrogen—progestin oral contraceptive with a graduate nurse. Which statement by the graduate nurse indicates teaching was effective?

1. "The amounts of both estrogen and progestin in each pill vary in three distinct phases during the treatment cycle."
2. "The oral contraceptive contains estradiol valerate, a synthetic estrogen, and dienogest, a progestin."
3. "The amount of estrogen in each pill remains constant, but the amount of progestin is increased toward the end of the treatment cycle to better nourish the uterine lining."
4. "The oral contraceptive delivers a constant dose of estrogen and progestin throughout the 21-day treatment cycle."

Answer: 3

Explanation:

1. In the triphasic oral contraceptive, the amounts of both estrogen and progestin vary in three distinct phases during the treatment cycle.
2. The quadriphasic contraceptive contains estradiol valerate, a synthetic estrogen, and dienogest, a progestin.
3. In the biphasic oral contraceptive, the amount of estrogen in each pill remains constant, but the amount of progestin is increased toward the end of the treatment cycle to better nourish the uterine lining.
4. The monophasic contraceptive delivers a constant dose of estrogen and progestin throughout the 21-day treatment cycle.

Page Ref: 711

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

21) The nurse instructs a client about the possible adverse effects of oral contraceptives. Which client statement indicates that teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I may experience increased acne while on oral contraceptives."
2. "If I experience chest pain, I will call the clinic immediately."
3. "If I begin to lose more hair than is normal, my dose may need to be adjusted."
4. "Any blurry vision or loss of vision should be reported immediately."
5. "If I notice swelling in my feet, hands, or face, I will notify the clinic."

Answer: 1, 2, 4, 5

Explanation:

1. Oral contraceptive use may result in an increase in acne.
2. Chest pain is a serious symptom and should be reported.
3. Hirsutism, not hair loss, may occur as an adverse effect of oral contraceptive use.
4. Blurry vision can be associated with glucose elevation, hypertension, or other adverse effects of oral contraceptive use.
5. Edema is a common effect of oral contraceptive use.

Page Ref: 711

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

22) A client reports having unprotected sex and is concerned about being pregnant. Which information about Plan B should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You can purchase Plan B without a prescription."
2. "You cannot purchase Plan B until you have been examined at the family planning clinic."
3. "You may take two separate doses of Plan B."
4. "If you are already pregnant, Plan B will end the pregnancy."
5. "Plan B will prevent ovulation and implantation."

Answer: 1, 3, 5

Explanation:

1. Plan B is available without a prescription.
2. It is not necessary to be examined in a family planning clinic prior to purchasing this medication.
3. Plan B consists of two doses. Plan B One Step includes a single dose.
4. Plan B will not induce an abortion or terminate a pregnancy.
5. Plan B acts in a manner similar to oral contraceptives in that it prevents ovulation and implantation.

Page Ref: 713

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 46-4 Explain how drugs may be used to provide emergency contraception and to modify pregnancy.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

23) A client is prescribed conjugated estrogens (Premarin). Which information should the nurse provide to the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You may notice a decrease in your libido while on this medication."
2. "You may experience depression while taking the medication."
3. "Do not become pregnant while on this medication."
4. "If you add the herbal black cohosh to this therapy, the results will be better."
5. "This medication will help prevent cardiovascular disease."

Answer: 1, 2, 3

Explanation:

1. Decreased libido is an adverse effect of this medication.
2. Depression is an adverse effect of the medication.
3. Conjugated estrogens are contraindicated in pregnant clients.
4. Black cohosh may interfere with estrogen therapy.
5. It was once believed that treatment with estrogen protected the client from cardiovascular disease, but this has not been proven to be correct.

Page Ref: 716

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

24) A client is prescribed a NuvaRing. Which teaching should the nurse provide to the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "This ring should be inserted into your uterus."
2. "Once inserted, this ring will provide contraception for 6 months."
3. "You should expect to replace the ring every 3 weeks."
4. "Contraceptive protection is provided for 3 weeks."
5. "The ring uses estrogen and progestin to provide contraception."

Answer: 4, 5

Explanation:

1. The ring is inserted into the vagina.
2. The ring provides 3 weeks of contraception.
3. The ring is worn for 3 weeks, removed for 1 week, and replaced at the beginning of the 4th week.
4. Contraceptive protection is provided for 3 weeks.
5. The active ingredients of NuvaRing are estrogen and progestin.

Page Ref: 709

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

25) A client is prescribed a progestin-only oral contraceptive. Which information should the nurse include when teaching about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Progestin oral contraceptives have a higher failure rate."
2. "Progestin oral contraceptives inhibit plantation of a fertilized egg."
3. "It works primarily by producing a thick viscous mucus that discourages sperm entrance to the uterus."
4. "You have an increased risk of a thromboembolism."
5. "You may notice your menstrual cycle will be more regular."

Answer: 1, 2, 3

Explanation:

1. Progestin-only pills have a higher failure rate than estrogen—progestin combination pills.
2. Progestin oral contraceptives inhibit plantation of a fertilized egg.
3. Progestin contraception primarily works by producing a thick viscous mucus that discourages sperm entrance to the uterus.
4. Progestins are not associated with a higher risk of thromboembolic events.
5. Progestin oral contraceptives have a higher incidence of menstrual irregularities, such as amenorrhea, prolonged menstrual bleeding, or breakthrough spotting.

Page Ref: 708

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

26) Which initial step should the nurse identify that occurs in the process of forming the corpus luteum?

1. A surge of luteinizing hormone (LH) occurs.
2. Ovarian follicles mature.
3. Follicle-stimulating hormone (FSH) and luteinizing hormone (LH) are secreted.
4. Gonadotropin-releasing hormone (GnRH) is secreted.

Answer: 4

Explanation:

1. The hypothalamus secretes gonadotropin-releasing hormone (GnRH), which travels a short distance to the pituitary to stimulate the secretion of follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Both of these pituitary hormones act on the ovary and cause immature ovarian follicles to begin developing.
2. The hypothalamus secretes gonadotropin-releasing hormone (GnRH), which travels a short distance to the pituitary to stimulate the secretion of follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Both of these pituitary hormones act on the ovary and cause immature ovarian follicles to begin developing.
3. The hypothalamus secretes gonadotropin-releasing hormone (GnRH), which travels a short distance to the pituitary to stimulate the secretion of follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Both of these pituitary hormones act on the ovary and cause immature ovarian follicles to begin developing.
4. The hypothalamus secretes gonadotropin-releasing hormone (GnRH), which travels a short distance to the pituitary to stimulate the secretion of follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Both of these pituitary hormones act on the ovary and cause immature ovarian follicles to begin developing.

Page Ref: 706

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-1 Describe the roles of the hypothalamus and pituitary in maintaining female reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

27) A client has stopped taking oral contraceptives in order to become pregnant. Which information should the nurse provide the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "It may take several months for ovulation to return to normal."
2. "The incidence of miscarriage is slightly increased."
3. "It may take several months for your menstrual periods to become regular."
4. "The length of use can affect your fertility."
5. "If you are not pregnant within a year, your healthcare provider will refer you to an infertility specialist."

Answer: 1, 3

Explanation:

1. After discontinuing oral contraceptives, it may take several months for ovulation to return to normal and for monthly menstrual periods to become regular.
2. The incidence of miscarriage is not increased in women who conceive after having taken oral contraceptives.
3. After discontinuing oral contraceptives, it may take several months for ovulation to return to normal and for monthly menstrual periods to become regular.
4. The length of contraceptive use does not appear to affect fertility.
5. After discontinuing oral contraceptives, it may take several months for ovulation to return to normal and for monthly menstrual periods to become regular. This is not an appropriate time to discuss a referral to an infertility specialist.

Page Ref: 710

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 46-10 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders of the female reproductive system and for contraception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

28) The nurse instructs a client prescribed the contraceptive Seasonale. Which client statement indicates teaching was effective?

1. "After I have taken 21 pills, I will not take pills for 7 days."
2. "I will remove the ring at the end of 3 weeks."
3. "After I have taken pills for 84 days, I will not take pills for 7 days."
4. "I will change the patch each week."

Answer: 3

Explanation:

1. This is not the treatment plan for the use of Seasonale.
2. Seasonale is not prescribed in the form of an intravaginal ring.
3. Seasonale is taken for 3 months (84 days) and then is not taken for 7 days.
4. Seasonale is not prescribed in the form of a patch.

Page Ref: 709

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

29) An older client is taking medroxyprogesterone (Provera). Which client statement should cause the nurse the most concern?

1. "I have gained a bit of weight."
2. "I have had periods of feeling very sad."
3. "I have experienced moments of confusion."
4. "I have been experiencing bouts of nausea."

Answer: 3

Explanation:

1. Medroxyprogesterone is associated with weight gain, but this is not the most concerning finding.
2. Depression is an adverse effect of medroxyprogesterone but not the most concerning finding.
3. Women age 65 and older have increased risk for dementia when treated with progestins.
4. Nausea is an adverse effect of medroxyprogesterone but is not the most concerning finding.

Page Ref: 716

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 46-3 Explain the mechanisms by which estrogens and progestins prevent conception.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

30) A client is prescribed flibanserin (Addyi). Which information should the nurse include when teaching the client about this information?

1. "Do not drink alcohol while taking the medication."
2. "You may experience insomnia while taking this prescription."
3. "Abstain from dairy products while taking this medication."
4. "This medication increases desire by increasing endogenous estrogen production."

Answer: 1

Explanation:

1. Severe hypotension and syncope may occur if this drug is taken concurrently with alcohol.
2. Common side effects include fatigue and sleepiness.
3. There is no reason to abstain from dairy products.
4. The mechanism of action is unknown.

Page Ref: 722

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 46-9 Identify the role of medications in the treatment of female hypoactive sexual desire disorder.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the female reproductive system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 47 Drugs for Disorders and Conditions of the Male Reproductive System**

1) The nurse reviews the role of follicle-stimulating hormone (FSH) and the male reproductive system with a client. Which statement indicates teaching provided was effective?

1. "Follicle-stimulating hormone (FSH) regulates sperm production."
2. "Follicle-stimulating hormone (FSH) regulates male androgen production."
3. "Follicle-stimulating hormone (FSH) regulates production of testosterone."
4. "Follicle-stimulating hormone (FSH) regulates male progesterone."

Answer: 1

Explanation:

1. Follicle-stimulating hormone (FSH) regulates sperm production in men.
2. Androgens are male sex hormones not regulated by follicle-stimulating hormone (FSH).
3. Testosterone is regulated by luteinizing hormone (LH), not follicle-stimulating hormone (FSH).
4. Follicle-stimulating hormone (FSH) does not regulate progesterone in men.

Page Ref: 728

Cognitive Level: Analyzing

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 47-1 Describe the roles of the hypothalamus, pituitary, and testes in

regulating male reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

2) The nurse notes that a female client has been taking high doses of an androgen. For which condition should the nurse suspect the client is being treated?

1. Cervical cancer
2. Breast cancer
3. Uterine cancer
4. Ovarian cancer

Answer: 2

Explanation:

1. High doses of androgens are not used as a palliative measure to treat cervical cancer.
2. High doses of androgens are occasionally used as a palliative measure to treat certain types of breast cancer.
3. High doses of androgens are not used as a palliative measure to treat uterine cancer.
4. High doses of androgens are not used as a palliative measure to treat ovarian cancer.

Page Ref: 730

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

3) A client asks why infertility drugs are not being developed for men. Which response should the nurse make?

1. "It's difficult because the medications have many side effects that men do not like."
2. "It's difficult because about 25% of infertile men also have erectile dysfunction."
3. "It's difficult because the cause is idiopathic and is untreatable."
4. "It's difficult because many men do not want to even admit they have a problem."

Answer: 3

Explanation:

1. All medications have side effects, but if they were successful in treating infertility, men would most likely use them.
2. Erectile dysfunction is not considered a prominent problem in male infertility.
3. Drug therapy for male infertility is not as successful as fertility pharmacotherapy for women because the cause of infertility is idiopathic and remains untreatable.
4. Men are willing to admit to a problem, but male infertility is difficult to treat.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 47-3 Explain the role of medications in the treatment of male infertility.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

4) A client receiving androgen therapy expresses concern about recent body changes as a result of the therapy. Which therapeutic response should the nurse make to the client?

1. "Would you like to speak with your healthcare provider?"
2. "Can we talk about your concerns?"
3. "Are you aware that these changes are only temporary?"
4. "Can you tell me specifically what changes you are talking about?"

Answer: 2

Explanation:

1. Deferring the discussion to the healthcare provider does not convey an acknowledgment of the client's feelings.
2. It is important to assess the client's perception of the problem, and asking the client for permission to discuss the concerns conveys respect.
3. The effects last throughout the course of therapy and are not temporary, and this does not offer the client the opportunity to discuss their concerns.
4. Asking the client to identify which specific concerns they have does not offer the client an option to not discuss their concerns or the opportunity to share their feelings prior to discussing their concerns.

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Cognitive Level: Applying

Client Need/Sub: Psychosocial Integrity

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

5) The nurse is assessing a client with symptoms of benign prostatic hyperplasia (BPH). Which common finding should the nurse anticipate?

1. Dysuria
2. Hematuria
3. Nocturia
4. Polyuria

Answer: 3

Explanation:

1. Dysuria is not a common finding for a client with benign prostatic hyperplasia.
2. Hematuria is not a common finding for a client with benign prostatic hyperplasia.
3. Nocturia is a common symptom associated with benign prostatic hyperplasia.
4. Polyuria is not associated with benign prostatic hyperplasia.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

6) A client is prescribed sildenafil (Viagra). Which information should the nurse include when teaching this client about the medication?

1. Grapefruit juice can decrease the effects of sildenafil (Viagra).
2. You can take sildenafil (Viagra) anywhere from 1 to 6 hours before sex.
3. Be sure to take only one pill in a 24-hour period.
4. Sildenafil (Viagra) should be taken with food.

Answer: 3

Explanation:

1. Grapefruit juice can lead to increased, not decreased, levels of sildenafil (Viagra).
2. The optimum time for administration is 1 hour before sex, but it can be taken up to 4 hours before sex.
3. Taking only one pill in a 24-hour period is the recommended dosing for sildenafil (Viagra).
4. Sildenafil (Viagra) should be taken on an empty stomach, not with food.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

7) A client is diagnosed with benign prostatic hyperplasia (BPH) and hypertension. Which medication should the nurse anticipate being prescribed for this client?

1. Terazosin (Hytrin)
2. Sildenafil (Viagra)
3. Finasteride (Proscar)
4. Tamsulosin (Flomax)

Answer: 1

Explanation:

1. Terazosin is an alpha<sub>1</sub>-adrenergic blocker that relaxes smooth muscle in the prostate and can also reduce blood pressure.
2. Sildenafil has no effect on benign prostatic hypertrophy.
3. Finasteride has no effect on blood pressure.
4. Tamsulosin has no effect on blood pressure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

8) A client without a history of benign prostatic hyperplasia is taking finasteride (Proscar). Which assessment question should the nurse ask the client?

1. "Do you have male-pattern baldness?"
2. "Do you have erectile dysfunction?"
3. "Do you have a stomach ulcer?"
4. "Do you have high blood pressure?"

Answer: 1

Explanation:

1. Finasteride is also sold as Propecia, which is used to promote hair growth.
2. Finasteride is not indicated for erectile dysfunction.
3. Finasteride is not indicated for stomach ulcers.
4. Finasteride is not indicated for high blood pressure.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

9) The nurse is preparing a health class for a group of high school students. Which information should the nurse include about anabolic steroids?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The use of anabolic steroids can lead to infertility.
2. The entire body is affected by anabolic steroids, especially the liver.
3. The use of anabolic steroids is the most effective way to increase muscle mass.
4. The use of anabolic steroids should be monitored by a healthcare provider.
5. The use of anabolic steroids can lead to very aggressive behavior.

Answer: 1, 2, 5

Explanation:

1. The use of anabolic steroids can lead to infertility.
2. The entire body is affected by anabolic steroids, and they can cause liver damage.
3. Weight training can effectively build muscle mass.
4. Anabolic steroid use to enhance athletic performance is illegal.
5. Behavioral changes, including aggression, are associated with anabolic steroids.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

10) The nurse is creating a teaching tool about erectile dysfunction (ED). Which body system should the nurse highlight that is associated with this disorder?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Cardiovascular
2. Integumentary
3. Endocrine
4. Nervous
5. Renal

Answer: 1, 3, 4, 5

Explanation:

1. Cardiovascular disorders can contribute to ED.
2. Disorders of the integumentary system are unlikely to contribute to ED.
3. Endocrine disorders contribute to ED.
4. Penile erection has both neuromuscular and vascular components.
5. Kidney disorders may contribute to ED.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

11) A client is prescribed doxazosin (Cardura). Which information should the nurse include in the teaching for this client?

1. Take your first dose as soon as you get your prescription.
2. Do not drive for 12 to 24 hours after starting this medication.
3. You may experience sweating and a headache while taking this medication.
4. Increase fluids with this medication.

Answer: 2

Explanation:

1. The first dose should be taken in a safe place in case the client experiences a significant drop in blood pressure.
2. Doxazosin may cause "first-dose" phenomenon, which results in a greater initial drop in blood pressure than with subsequent doses. The client should not drive for 12 to 24 hours until this effect has passed.
3. Doxazosin (Cardura) does not cause diaphoresis or headache.
4. There is no reason to encourage fluids.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Planning  
Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

12) A client is requesting a refill of tadalafil (Cialis). Which question should the nurse ask the client?

1. "Do you have diabetes mellitus?"
2. "Do you have any sexually transmitted diseases?"
3. "Do you use nitroglycerin?"
4. "Do you take blood pressure medication?"

Answer: 3

Explanation:

1. Having diabetes mellitus is not a contraindication to the use of tadalafil (Cialis).
2. Having a sexually transmitted disease is not a contraindication to the use of tadalafil (Cialis).
3. Combining tadalafil (Cialis) with organic nitrates such as nitroglycerin can lead to serious hypotension.
4. Taking blood pressure medication is not a contraindication to the use of tadalafil (Cialis).

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

13) The nurse is assessing an 18-year-old male client. Which physical assessment finding supports a diagnosis of hypogonadism?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Facial hair is minimal, soft, and light in color
2. Absent pubic hair
3. Decreased subcutaneous fat
4. Small testicles
5. Pale skin

Answer: 1, 2, 4

Explanation:

1. Lack of secondary sexual characteristics like beard development is associated with hypogonadism.
2. Lack of secondary sexual characteristics like pubic hair is associated with hypogonadism.
3. It is more likely that subcutaneous fat will be increased in a patient with hypogonadism.
4. Lack of secondary sexual characteristics like development of the testes is associated with hypogonadism.
5. Pale skin is not associated with hypogonadism.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-2 Identify drugs used for the pharmacotherapy of male hypogonadism.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

14) A client is prescribed finasteride (Proscar). Which information should the nurse include when teaching about this medication?

1. "Pregnant women should not touch this medication."
2. "This drug has only very minor side effects."
3. "Side effects of the prescription occur within 1 week of starting treatment."
4. "Swallow the medication whole with a full glass of water."

Answer: 1

Explanation:

1. Finasteride may be absorbed through the skin and cause damage to a male fetus.
2. Finasteride may cause impotence, impaired fertility, diminished libido, and ejaculatory dysfunction. Other effects include headache, rash, dizziness, and asthenia.
3. It may take 3 to 6 months for the maximum effect of this medication.
4. Finasteride may be crushed for oral administration.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

15) A male client has been using endocrine pharmacology for infertility. Which finding indicates that the treatment has been successful?

1. Patient reports reduced difficulty in achieving and maintaining an erection.
2. Patient's sperm count is 22 million/mL.
3. Patient's ejaculate volume is 2 mL.
4. Patient reports pleasure with intercourse.

Answer: 2

Explanation:

1. The goal of endocrine pharmacotherapy of male infertility is to increase sperm production.
2. The goal of endocrine pharmacotherapy is to increase sperm production. A sperm count of 22 million/mL is normal.
3. The amount of ejaculate volume is not a criterion for success of endocrine pharmacology for infertility.
4. The goal of endocrine pharmacotherapy of male infertility is to increase sperm production.

Page Ref: 732

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-3 Explain the role of medications in the treatment of male infertility.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

16) The nurse is reviewing the physiology of the male reproductive system. Which describes the primary function of luteinizing hormone in men?

1. Regulates sperm production
2. Regulates secondary sex characteristics
3. Regulates growth of male sex organs
4. Regulates testosterone

Answer: 4

Explanation:

1. Follicle-stimulating hormone regulates sperm.
2. Testosterone regulates secondary sex characteristics.
3. Androgen regulates growth of male sex organs.
4. Luteinizing hormone regulates testosterone.

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Cognitive Level: Remembering

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-1 Describe the roles of the hypothalamus, pituitary, and testes in regulating male reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

17) The nurse is preparing a teaching tool about the male reproductive system. Which body part or substance is responsible for the secretion of androgen?

1. Follicle-stimulating hormone
2. Gonadotropin-releasing hormone
3. Testes
4. Pituitary gland

Answer: 3

Explanation:

1. The pituitary releases follicle-stimulating hormone.
2. Gonadotropin is released from the hypothalamus.
3. Androgen is secreted by the testes.
4. The pituitary releases follicle-stimulating hormone.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment; Teaching/Learning

Learning Outcome: 47-1 Describe the roles of the hypothalamus, pituitary, and testes in regulating male reproductive function.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

18) A male client is prescribed androgen therapy. Which goal should the nurse identify for this client?

1. Increase the sperm count
2. Release follicle-stimulating hormone
3. Increase luteinizing hormone
4. Increase the libido

Answer: 4

Explanation:

1. Androgens do not decrease the libido.
2. Androgens do not release FSH.
3. Androgens do not increase luteinizing hormone.
4. Androgen therapy increases the libido and treats erectile dysfunction.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

19) A client seeks treatment for erectile dysfunction (ED). Which medication should the nurse anticipate being prescribed for this client?

1. Leuprolide (Lupron)
2. Finasteride (Proscar)
3. Tamsulosin (Flomax)
4. Sildenafil (Viagra)

Answer: 4

Explanation:

1. Leuprolide is an androgen used in high doses for prostate cancer.
2. Finasteride is used for benign prostatic hypertrophy.
3. Tamsulosin is used for benign prostatic hypertrophy.
4. Sildenafil is an agent for ED.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

20) A client is prescribed finasteride (Proscar). Which mechanism of action should the nurse explain to the client about this medication?

1. Relaxes smooth muscle in the penis
2. Promotes the shrinkage of an enlarged prostate gland
3. Increases the testosterone level
4. Stimulates RNA synthesis

Answer: 2

Explanation:

1. Agents for erectile dysfunction, such as phosphodiesterase-5 inhibitors, relax smooth muscle in the penis.
2. 5-alpha reductase inhibitors promote shrinkage of the prostate gland.
3. Androgens increase testosterone.
4. Androgens stimulate RNA synthesis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

21) A client is taking a 5-alpha reductase inhibitor. Which finding should the nurse identify as an adverse effect of this medication?

1. Headache
2. Acne
3. Sexual dysfunction
4. Chest pain

Answer: 3

Explanation:

1. Headache is common with phosphodiesterase-5 inhibitors.
2. Acne is an adverse effect of androgens.
3. Sexual dysfunction may occur with 5-alpha reductase inhibitors.
4. Chest pain is an adverse effect of phosphodiesterase-5 inhibitors.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

22) The nurse is assessing a male high school student who participates in sports. Which comments made by the student should the nurse interpret as understanding the risks of using anabolic steroids?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "The only legal way I can take these drugs is if I inject them myself."
2. "Once I stop taking these drugs, my body will return to normal."
3. "As long as my coach says these drugs are okay, they won't hurt me."
4. "I might become mentally dependent on these drugs."
5. "These drugs could harm my liver."

Answer: 4, 5

Explanation:

1. Self-injection does not make the use of steroids legal.
2. The effects of anabolic steroids often last long after the drug is discontinued.
3. Coaches are not the experts on the use of anabolic steroids and their effects on the body.
4. Psychologic dependence is possible with use of anabolic steroids.
5. Oral androgens are hepatotoxic and permanent liver damage may result with prolonged use.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.B.2 Demonstrate effective use of strategies to reduce risk of harm to self or others. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

23) A client is diagnosed with azoospermia. About which clinical condition should the nurse ask the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Sexually transmitted infections (STIs)
2. Erectile dysfunction (ED)
3. Mumps
4. Tuberculosis (TB)
5. Atherosclerosis

Answer: 1, 3, 4

Explanation:

1. STIs are a common cause of obstruction of the vas deferens, which would result in sperm not passing into the ejaculate.
2. ED would not result in azoospermia.
3. Mumps and other infections may result in blockage of the vas deferens, which would prevent the passage of sperm into the ejaculate.
4. Infections such as chronic TB may result in obstruction of the vas deferens, which could result in azoospermia.
5. Atherosclerosis is more likely to be a reason for erectile dysfunction.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-3 Explain the role of medications in the treatment of male infertility.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

24) A client is prescribed testosterone. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Place the patch on a place that does not have hair."
2. "Avoid placing the patch on active areas like the thigh or arm."
3. "The patch should be changed every 7 days."
4. "Observe for a rash at the patch site."
5. "Keep these patches away from children."

Answer: 1, 4, 5

Explanation:

1. The patch should be placed on hair-free skin.
2. As long as the skin is dry and hair-free, the activity of the area is not an issue.
3. The patch is changed daily.
4. Skin irritation or rash may occur at the patch site.
5. Children should not be exposed to these patches or the patch site.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

25) A client is taking sildenafil (Viagra). Which assessment finding should the nurse identify as an adverse effect of this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Nasal congestion
2. Nausea
3. Blurry vision
4. Priapism
5. Photophobia

Answer: 1, 3, 4, 5

Explanation:

1. Nasal congestion can occur as an adverse effect of sildenafil.
2. Nausea is not a known adverse effect of sildenafil.
3. Blurry vision is a known adverse effect of sildenafil.
4. Sustained erection is a known adverse effect of sildenafil.
5. Increased sensitivity to light is a known adverse effect of sildenafil.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 47-4 Describe the etiology, pathogenesis, and pharmacotherapy of erectile dysfunction.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

26) A client is prescribed buccal testosterone. Which information should the nurse include when teaching the client about this medication?

1. Inflammation may occur in the mucosal tissue.
2. Fluctuations of libido and energy may occur.
3. It produces a continuous supply of testosterone in the blood.
4. The dosage can last for 2 weeks.

Answer: 3

Explanation:

1. Buccally administered testosterone is not associated with buccal irritation.
2. Fluctuations of libido and energy may occur when administering testosterone intramuscularly.
3. Testosterone administered buccally produces a continuous supply of testosterone in the blood.
4. The dosage of testosterone can last 2 to 4 weeks when administered intramuscularly.

Page Ref: 729

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 47-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for disorders and conditions of the male reproductive system.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

27) A client is prescribed an alpha<sub>1</sub>-adrenergic blocker for the treatment of benign prostatic hyperplasia (BPH). Which teaching should the nurse provide to this client?

1. Take the first dose of the medication in the morning with breakfast.
2. Monitor your blood pressure on a weekly basis and report any blood pressure over 140/90 mmHg.
3. Call your healthcare provider if you are unable to take the prescription for 2 days.
4. Hold the prescription if you are experiencing dizziness.

Answer: 3

Explanation:

1. The first dose of the medication should be taken immediately before going to bed until the effects are known.
2. The client should be instructed to monitor their blood pressure on a weekly basis and report any blood pressure over 140/90 mmHg. Alpha-adrenergic antagonists may trigger sodium and water retention with resulting increases in weight, blood pressure, and possible edema. Immediately report any BP over 140/90 mmHg, peripheral edema, or weight gain.
3. The medication should not be stopped abruptly. Abruptly stopping alpha-adrenergic antagonists used for BPH can cause rebound hypertension and tachycardia may occur.
4. Dizziness is a side effect of the medication. The client should be instructed to sit or lie down until the sensation passes.

Page Ref: 737

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

28) The nurse instructs a client being treated for benign prostatic hypertrophy (BPH). Which client statements indicate teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "These medications are not a cure."
2. "Taking an antihistamine might make my problem worse."
3. "Avoiding caffeine intake may reduce my symptoms."
4. "Surgery is the best treatment for this condition."
5. "I should avoid drinking fluids in the late evening."

Answer: 1, 2, 3, 5

Explanation:

1. The medications for BPH only slow the progress; they are not a cure.
2. Antihistamines can cause constriction in the urethra and neck of the bladder, making symptoms worse.
3. Avoidance of caffeine can reduce symptoms.
4. The best treatment for this condition depends on the individual patient's findings.
5. Avoidance of fluids in the late evening may help to reduce the need to void at night.

Page Ref: 735

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

29) The nurse instructs a client about benign prostatic hyperplasia (BPH). Which client statement indicates teaching about the condition was effective?

1. "The urethra is enlarged."
2. "The glands around the urethra are enlarged."
3. "The obstruction is around the glans penis."
4. "The ureteral openings are swollen."

Answer: 2

Explanation:

1. BPH is not caused by enlargement of the urethra.
2. The urethra passes through the prostate gland. Enlargement of the gland or action of the receptors in the bladder neck and urethra causes compression or constriction of the urethra, making passage of urine difficult.
3. There is no obstruction around the glans penis.
4. BPH is not caused by edema of ureteral openings.

Page Ref: 734

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

30) A male patient is taking a 5-alpha reductase inhibitor for the treatment of benign prostatic hyperplasia. Which information should the nurse provide about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Use a condom during intercourse."
2. "Keep this medication in a secure place away from children."
3. "Do not give blood while you are taking this medication."
4. "Do not do heavy exercise while taking this medication."
5. "Reduce your sodium intake while taking this drug."

Answer: 1, 2, 3

Explanation:

1. The client should use a condom to prevent exposure of a female partner to semen, which may contain the drug.
2. This drug is dangerous for children and should be kept in a secure place.
3. The client should not give blood during the time this medication is being taken and for up to a month after the drug is stopped.
4. Heavy exercise is not restricted.
5. There is no need to decrease sodium.

Page Ref: 737

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 47-5 Describe the pathogenesis and pharmacotherapy of benign prostatic hyperplasia.

MNL Learning Outcome: Examine drugs used for disorders and conditions of the male reproductive system.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 48 Drugs for Bone and Joint Disorders**

1) The nurse is caring for a child with rickets. Which information should the nurse include when teaching the parents?

1. Avoid dairy products while taking vitamin D.
2. Be sure to take brand name, not generic, vitamin D.
3. Spend at least 20 minutes a day in the sunlight.
4. Take your vitamin D on an empty stomach.

Answer: 3

Explanation:

1. Dairy products are good sources of vitamin D and should be consumed.
2. Generic vitamin D is fine to take.
3. Twenty minutes a day in the sun will provide all the vitamin D that is required.
4. Vitamin D should be taken with food, not on an empty stomach.

Page Ref: 744

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 48-3 Explain the pathophysiology of the various metabolic bone diseases.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

2) The nurse instructs a client about prescribed alendronate (Fosamax). Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "I cannot lie down for at least 30 minutes after taking the prescription."
2. "Milk will help with the absorption of this medication."
3. "I should call my healthcare provider if I experience heartburn."
4. "I must take this with a full glass of water."
5. "The prescription can be taken with or without food."

Answer: 1, 3, 4

Explanation:

1. The client must stay upright for at least 30 minutes to prevent gastrointestinal upset.
2. Milk will interfere with the absorption of alendronate; it should be taken on an empty stomach.
3. Alendronate is irritating to the esophagus; the client must contact the healthcare provider if heartburn occurs.
4. Alendronate must be taken on an empty stomach with a full glass of water to ensure absorption.
5. Food will interfere with the absorption of alendronate; it should be taken on an empty stomach.

Page Ref: 750

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

3) A client has a calcium imbalance. Which medication should the nurse anticipate being prescribed for this client?

1. Calcium supplements and dark green, leafy vegetables
2. Calcium supplements and milk products
3. Calcium supplements and potassium
4. Calcium supplements and vitamin D

Answer: 4

Explanation:

1. Dark green, leafy vegetables are not the best of the sources of calcium listed.
2. Calcium supplements and milk products are good choices, but the client must also have vitamin D.
3. Potassium is not necessary with this illness.
4. Calcium supplements and vitamin D are considered the most effective treatments for osteomalacia.

Page Ref: 744

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 48-2 Identify the types of calcium supplements used in the pharmacotherapy of hypocalcemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

4) The nurse reviews the physiological process that occurs with vitamin D. Which step in the process of vitamin D activation occurs after dietary products are consumed?

1. Calcium is absorbed in the small intestine.
2. Calcifediol is formed.
3. Calcitriol is formed.
4. Cholecalciferol is synthesized.

Answer: 4

Explanation:

1. The formation of calcium is not the next step in the process of vitamin D activation after the dietary products are consumed.
2. After dietary products are consumed, cholecalciferol is synthesized from cholesterol. Calcifediol is formed from cholecalciferol.
3. The formation of calcitriol is not the next step in the process of vitamin D activation after the dietary products are consumed.
4. After dietary products are consumed, cholecalciferol is synthesized from cholesterol. Calcifediol is formed from cholecalciferol. Calcitriol is formed, which results in the increased absorption of calcium in the small intestine.

Page Ref: 744

Cognitive Level: Understanding

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-1 Describe the role of calcium, vitamin D, calcitonin, and parathyroid hormone in maintaining bone homeostasis.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

5) A client is taking hydroxychloroquine sulfate (Plaquenil) for rheumatoid arthritis. Which testing should the nurse instruct the client to have on a regular basis?

1. Hearing tests
2. Eye exams
3. Serum glucose
4. Blood pressure

Answer: 2

Explanation:

1. Hearing tests are not necessary when the client receives hydroxychloroquine sulfate.
2. Blurred vision, inability to read, and visual field disturbances can occur when receiving hydroxychloroquine sulfate, so the client must have regular eye exams.
3. Serum glucose monitoring is not necessary when the client receives hydroxychloroquine sulfate.
4. Blood pressure monitoring is not necessary when the client receives hydroxychloroquine sulfate.

Page Ref: 756

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 48-6 Explain the indications and adverse effects of disease-modifying antirheumatic drugs.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

6) The nurse instructs a client taking allopurinol (Zyloprim). Which client statement indicates teaching was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "It may take a few days or weeks for me to get the full effect of this medication."
2. "I should not drink alcohol while taking this drug."
3. "If I develop a skin rash, I should contact the prescriber."
4. "I should not crush this medication."
5. "I should take this medication with food."

Answer: 1, 2, 3, 5

Explanation:

1. It may take 1 to 3 weeks for blood levels of uric acid to return to normal range.
2. Alcohol may inhibit the renal excretion of uric acid.
3. Skin rash is a possible adverse reaction of allopurinol and can be serious.
4. Allopurinol tablets may be crushed for administration.
5. Allopurinol should be taken with or after meals.

Page Ref: 759

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 48-7 Describe drugs used to treat gout and hyperuricemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

7) A client is prescribed a calcium supplement. Which statement should the nurse include when teaching the client about this medication?

1. "This drug may cause insomnia."
2. "Take your calcium with a meal."
3. "The vitamin D supplement can be taken separately."
4. "Take the calcium on an empty stomach."

Answer: 2

Explanation:

1. Insomnia is not an adverse effect of calcium ingestion.
2. Calcium is best absorbed if taken with a meal.
3. Vitamin D facilitates absorption of calcium.
4. Calcium should be taken with food for best absorption or within 1 hour of meals.

Page Ref: 746

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other

disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 48-2 Identify the types of calcium supplements used in the pharmacotherapy of hypocalcemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

8) A client is diagnosed with gout. Which pharmacological effect should the nurse identify that prevents hyperuricemia?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Break down uric acid.
2. Inhibit the formation of uric acid.
3. Excrete uric acid.
4. Convert uric acid to a less toxic form.
5. Eliminate the uric acid.

Answer: 2, 3, 4

Explanation:

1. Uric acid can be reduced, not broken down, but can be converted to a less toxic form.
2. A strategy to prevent hyperuricemia includes inhibiting the formation of uric acid.
3. A strategy to prevent hyperuricemia includes excreting uric acid.
4. A strategy to prevent hyperuricemia includes converting uric acid into a less toxic form.
5. Uric acid cannot be eliminated from the body; it is a by-product of purines in the body.

Page Ref: 759-760

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 48-7 Describe drugs used to treat gout and hyperuricemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

9) A client has been taking a bisphosphonate as treatment for osteoporosis. Which assessment will be used to determine the effectiveness of this medication?

1. Normal serum calcium levels
2. Absence of fractures
3. Bone density scan
4. Absence of bone pain

Answer: 3

Explanation:

1. A normal serum calcium level is not used to determine the effectiveness of bisphosphonates.
2. An absence of fractures is not used to determine the effectiveness of bisphosphonates.
3. The bone density scan is the best assessment tool to determine the effectiveness of bisphosphonates.
4. The absence of bone pain is not used to determine the effectiveness of bisphosphonates.

Page Ref: 752

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

10) The nurse instructs a client with osteoporosis on actions to manage the illness. Which statement by the client indicates that additional teaching is necessary?

1. "I will avoid drinking alcohol."
2. "I will walk for 30 minutes every day."
3. "I will take my calcium when I wake up."
4. "I will drink milk regularly."

Answer: 3

Explanation:

1. Avoiding alcohol will help with osteoporosis.
2. Walking will help with osteoporosis.
3. Calcium should be taken with meals.
4. Drinking milk will help with osteoporosis.

Page Ref: 746

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 48-3 Explain the pathophysiology of the various metabolic bone diseases.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

11) The nurse is planning care for a client with rheumatoid arthritis. Which goal should the nurse identify for pharmacotherapy to treat the condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increase rheumatoid factors.
2. Reduce pain.
3. Prevent fractures.
4. Minimalize disability.
5. Control inflammation.

Answer: 2, 4, 5

Explanation:

1. Rheumatoid factors are autoantibodies that attack the client's tissues, activating complement and drawing leukocytes into the area, where they attack the cells of the synovial membranes and blood.
2. The goals of pharmacotherapy for a client with rheumatoid arthritis include reducing pain.
3. The prevention of fractures is not a pharmacotherapeutic goal for a client with rheumatoid arthritis.
4. The goals of pharmacotherapy for a client with rheumatoid arthritis include minimizing physical disability.
5. The goals of pharmacotherapy for a client with rheumatoid arthritis include controlling inflammation.

Page Ref: 781

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 48-6 Explain the indications and adverse effects of disease-modifying antirheumatic drugs.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

12) The nurse is reviewing data collected during a client assessment. Which statement made by the client supports a diagnosis of acute gouty arthritis?

1. "I experience numbness in my joints."
2. "My muscles feel very weak."
3. "My attacks occur at night."
4. "I have a great deal of stiffness in the morning."

Answer: 3

Explanation:

1. Acute gouty arthritis is not associated with numbness in the joints.
2. Muscle weakness is not associated with gout.
3. Attacks of acute gouty arthritis have a sudden onset and often occur at night.
4. Morning stiffness is not specifically associated with acute gouty arthritis.

Page Ref: 756

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-7 Describe drugs used to treat gout and hyperuricemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

13) A client has a low calcium level. Which potential condition should cause the nurse concern?

1. Muscle twitching
2. Bone fractures
3. Hypoglycemia
4. Depression

Answer: 1

Explanation:

1. Muscle twitching is a symptom of a low calcium level.
2. A consistently low calcium level will result in bone fractures, but this is not the immediate concern.
3. A low calcium level will not result in hypoglycemia.
4. A low calcium level will not result in depression.

Page Ref: 745

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-1 Describe the role of calcium, vitamin D, calcitonin, and parathyroid hormone in maintaining bone homeostasis.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

14) A client is receiving intravenous (IV) calcium. Which assessment should the nurse include in the treatment plan for this client?

1. Serum glucose levels
2. IV site
3. Serum potassium levels
4. Level of consciousness

Answer: 2

Explanation:

1. The client's glucose levels will not be affected when receiving IV calcium.
2. The IV site must be assessed, as extravasation may lead to necrosis of tissue at the insertion site.
3. The client's serum potassium levels should not be affected when receiving IV calcium.
4. The level of consciousness is not directly affected by IV calcium.

Page Ref: 746

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 48-8 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for bone and joint disorders.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

15) The nurse is caring for a client taking alendronate (Fosamax). Which adverse effect should the nurse instruct the client to report?

1. Ringing in the ears
2. Flushed skin
3. Visual changes
4. Muscle spasms

Answer: 4

Explanation:

1. Ringing in the ears is not an adverse effect of alendronate.
2. Flushed skin is not an adverse effect of alendronate.
3. Visual changes are not adverse effects of alendronate.
4. Muscle spasms indicate a low calcium level, which can be caused by alendronate. If untreated, the client is at risk for seizures.

Page Ref: 750

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

16) The nurse is reviewing the role of calcium in the body with a client. Which function of calcium

should the nurse emphasize with the client?

1. Regulates acid—base balance
2. Improves glucose absorption
3. Increases energy
4. Regulates nerve transmission

Answer: 4

Explanation:

1. Calcium does not regulate acid—base balance.
2. Calcium does not improve glucose absorption.
3. Calcium does not increase the energy level.
4. Adequate calcium levels help transmit nerve impulses.

Page Ref: 745

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 48-1 Describe the role of calcium, vitamin D, calcitonin, and parathyroid hormone in maintaining bone homeostasis.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

17) A client reports a normal dietary intake. Which condition should the nurse associate with the development of hypocalcemia in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Malabsorption syndrome
2. Hyperparathyroidism
3. Chronic kidney disease
4. Excessive vomiting
5. Multiple blood transfusions

Answer: 1, 3, 4, 5

Explanation:

1. Malabsorption syndrome can result in hypocalcemia.
2. Hypoparathyroidism results in a decrease of parathyroid hormone, causing hypocalcemia.
3. Chronic kidney disease may cause excessive calcium loss in the urine.
4. Excessive vomiting is associated with the loss of calcium.
5. Multiple blood transfusions can result in hypocalcemia.

Page Ref: 745

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-3 Explain the pathophysiology of the various metabolic bone diseases.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

18) The nurse is preparing teaching about gout. Which factor should the nurse include that contributes to the symptoms of gout?

1. Increase in the excretion of uric acid
2. Buildup of uric acid in the blood
3. Cartilage loss in the joints
4. Decrease in uric acid in the blood

Answer: 2

Explanation:

1. An increase in excretion would not cause gout.
2. Gout is due to buildup of uric acid in blood or joints.
3. Cartilage loss is characterized by osteoarthritis.
4. A decrease in uric acid would not cause gout.

Page Ref: 755

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 48-7 Describe drugs used to treat gout and hyperuricemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

19) A client has overdosed on vitamin D. Which finding should the nurse expect to assess in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Abdominal cramping
2. Muscle twitching
3. Vomiting
4. Fatigue
5. Excessive thirst

Answer: 3, 4, 5

Explanation:

1. Abdominal cramping is a symptom of hypocalcemia.
2. Muscle twitching is a symptom of hypocalcemia.
3. Vomiting is associated with hypercalcemia that occurs after an overdose of vitamin D.
4. Fatigue is associated with hypercalcemia that occurs after an overdose of vitamin D.
5. Excessive thirst is associated with hypercalcemia that occurs after an overdose of vitamin D.

Page Ref: 747

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-8 Use the nursing process and the clinical judgment measurement model to care for patients receiving pharmacotherapy for bone and joint disorders.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

20) A client is taking a selective estrogen receptor modulator. Which mechanism of action should the nurse explain to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Increases bone density
2. Increases calcium levels in the bone
3. Decreases bone resorption
4. Inhibits synthesis of microtubules
5. Increases bone mass

Answer: 1, 3, 5

Explanation:

1. Selective estrogen receptor modulators increase bone density.
2. Calcium supplements increase calcium levels.
3. Selective estrogen receptor modulators decrease bone resorption.
4. Selective estrogen receptor modulators do not inhibit synthesis of microtubules.
5. Selective estrogen receptor modulators increase bone mass.

Page Ref: 748-749

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning  
Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

21) The nurse is preparing education for a client prescribed Raloxifene. Which common adverse effect should the nurse include in the teaching?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Flulike symptoms
2. Leg cramps
3. Hot flashes
4. Peripheral edema
5. Weight gain

Answer: 2, 3, 5

Explanation:

1. Flulike symptoms are a less common adverse effect of raloxifene.
2. Leg cramps are a common adverse effect of raloxifene.
3. Hot flashes are a common adverse effect of raloxifene.
4. Peripheral edema is a less common adverse effect of raloxifene.
5. Weight gain is a common adverse effect of raloxifene.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

22) The nurse instructs a client prescribed adalimumab (Humira). Which client statement indicates further teaching is required?

1. "I am glad I do not have to take the prescription daily."
2. "I will practice drawing up the prescription in a syringe."
3. "I will store the prescription in the refrigerator."
4. "I will stop using echinacea."

Answer: 2

Explanation:

1. Adalimumab is administered by the subcutaneous route, usually every other week. Doses differ by indication.
2. Adalimumab is available in a single-use pen injection system for home administration.
3. The prescription should be stored in the refrigerator.
4. Echinacea should be avoided because it may decrease the immunosuppressive effects of adalimumab.

Page Ref: 757

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 48-6 Explain the indications and adverse effects of disease-modifying antirheumatic drugs.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

23) The nurse is preparing education for a client prescribed sodium hyaluronate (Hyalgan). Which information should the nurse include in the instructions?

1. "You will be receiving one injection a month."
2. "You will need to return to the clinic every 3 months."
3. "This will help prevent friction of the joints."
4. "Sodium hyaluronate is a synthetic fluid that is injected around your joints."

Answer: 3

Explanation:

1. Treatment consists of one injection per week for 3 to 5 weeks.
2. Treatment consists of one injection per week for 3 to 5 weeks.
3. Sodium hyaluronate is a natural chemical found in high amounts within synovial fluid. Administered by injection directly into the knee joint, this drug replaces or supplements the body's natural hyaluronic acid that deteriorated because of the inflammation of osteoarthritis. By coating the articulating cartilage surface, Hyalgan helps provide a barrier that prevents friction and further inflammation of the joint.
4. Sodium hyaluronate is a natural chemical found in high amounts within the synovial fluid. Administered by injection directly into the knee joint, this drug replaces or supplements the body's natural hyaluronic acid that deteriorated because of the inflammation of osteoarthritis.

Page Ref: 754

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning  
Learning Outcome: 48-5 Describe drugs used to treat osteoarthritis.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

24) A client is prescribed denosumab (Prolia). Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "You will receive this medication through an injection."
2. "You may feel more fatigued than usual when taking this medication."
3. "Be certain to keep your appointments for follow-up."
4. "Do not take any kind of calcium supplement or vitamin D supplement while taking this drug."
5. "We must monitor your cholesterol while you are taking this drug."

Answer: 1, 2, 3, 5

Explanation:

1. Denosumab is administered subcutaneously.
2. An adverse reaction of this drug is fatigue.
3. This drug can cause severe hypocalcemia, so it is important to monitor lab values.
4. Calcium and vitamin D supplementation may be necessary to keep serum calcium at normal levels.
5. This drug may result in hypercholesterolemia.

Page Ref: 749

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

25) A client is diagnosed with advanced osteoarthritis. Which medication should the nurse anticipate to be prescribed for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Acetaminophen
2. Topical ointments
3. Tramadol
4. Biological response modifiers
5. Intraarticular corticosteroids

Answer: 1, 2, 3, 5

Explanation:

1. Acetaminophen is used in the treatment of advanced osteoarthritis.
2. Topical ointments are used in the treatment of advanced osteoarthritis.
3. Tramadol is used in the treatment of advanced osteoarthritis.
4. Biological response modifiers are prescribed for the treatment of rheumatoid arthritis.
5. Intraarticular corticosteroids are used in the treatment of advanced osteoarthritis.

Page Ref: 753-754

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 48-5 Describe drugs used to treat osteoarthritis.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

26) A client is taking a bisphosphonate as treatment for osteoarthritis. Which client statement indicates teaching about this medication is required?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "It will take at least 4 years for the maximum effect of the prescription to occur."
2. "The bone density improvement will rapidly disappear if I stop taking this prescription."
3. "I still need to eat foods high in phosphorus."
4. "I should spend 15 to 20 minutes in the sun on most days."
5. "The medication I took to correct my vitamin D deficiency was in preparation for this new treatment."

Answer: 1, 3

Explanation:

1. Maximum results of therapy will occur in 2 to 3 years.
2. After discontinuation of therapy, bone density will remain increased for up to a year.
3. The client must have an adequate intake of calcium.
4. Vitamin D level is supported by 15 to 20 minutes of sun exposure each day. Additional teaching is not necessary.
5. Any deficiency in vitamin D should be corrected before therapy is initiated. Additional teaching is not necessary.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

27) The nurse is presenting community education for a group of clients with osteoarthritis. Which information should the nurse provide about the goals of pharmacotherapy for this condition?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Prescriptions for osteoarthritis help to prevent development of rheumatoid arthritis."
2. "Prescriptions are given to help reduce the pain of osteoarthritis."
3. "Some of the prescriptions for osteoarthritis focus on reducing inflammation."
4. "There are prescriptions that can prevent the development of osteoarthritis."
5. "Antibiotics are given to treat common infections caused by osteoarthritis."

Answer: 2, 3

Explanation:

1. Osteoarthritis does not become rheumatoid arthritis.
2. Pain relief is a major goal of treatment for osteoarthritis.
3. Prescriptions are given to treat the inflammation.
4. There are no prescriptions that prevent osteoarthritis.
5. Infections are not caused by osteoarthritis.

Page Ref: 753

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

28) A client is taking a bisphosphonate as treatment for osteoporosis. Which symptom should the nurse instruct the client to immediately report to the healthcare provider?

1. Diarrhea
2. Metallic taste
3. Headache
4. Jaw pain

Answer: 4

Explanation:

1. Diarrhea is an adverse symptom of the use of a bisphosphonate but not the most important symptom to report.
2. A metallic taste is an adverse symptom of the use of a bisphosphonate but not the most important symptom to report.
3. A headache is an adverse symptom of the use of a bisphosphonate but not the most important symptom to report.
4. An unusual adverse effect that may occur during bisphosphonate therapy is osteonecrosis of the jaw, which can result in jaw pain and swelling, loosening of teeth, and infection at the site of the lesion.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 48-4 Discuss the pharmacotherapy of metabolic bone diseases, including osteomalacia, osteoporosis, and Paget's disease.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

29) The nurse is reviewing the pathophysiology of rheumatoid arthritis. Which condition should the nurse associate with this diagnosis?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Hypothyroidism
2. Diabetes mellitus
3. Pulmonary disease
4. Pericarditis
5. Chronic kidney disease

Answer: 3, 4

Explanation:

1. Hypothyroidism is not associated with rheumatoid arthritis.
2. Diabetes mellitus is not associated with rheumatoid arthritis.
3. Pulmonary disease is associated with rheumatoid arthritis.
4. Pericarditis is associated with rheumatoid arthritis.
5. Chronic kidney disease is not associated with rheumatoid arthritis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-6 Explain the indications and adverse effects of disease-modifying antirheumatic drugs.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

30) The nurse reviews the medications that a client is currently taking. Which medication should the nurse identify that increases the client's risk for gout?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Aspirin
2. Thiazide diuretics
3. Acetaminophen
4. Cyclosporine
5. Aminoglycosides

Answer: 1, 2, 4

Explanation:

1. Aspirin is associated with the development of gout.
2. Thiazide diuretics are associated with the development of gout.
3. Acetaminophen is not associated with the development of gout.
4. Cyclosporine is associated with the development of gout.
5. Aminoglycosides are not associated with the development of gout.

Page Ref: 756

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 48-7 Describe drugs used to treat gout and hyperuricemia.

MNL Learning Outcome: Examine drugs used for bone and joint disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 49 Drugs for Skin Disorders**

1) The nurse is preparing a teaching tool for a community health program. Which information should the nurse include about the structure and function of the skin?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. The outermost layer of the epidermis serves as the major waterproof barrier to the environment.
2. The epidermis provides a foundation for the accessory structures such as hair and nails.
3. The amount of subcutaneous tissue varies and is determined by nutritional status and heredity.
4. Most receptor nerve endings, oil glands, sweat glands, and blood vessels are found within the subcutaneous fat.
5. The deepest epidermal layer provides new cells.

Answer: 1, 3, 5

Explanation:

1. The outermost layer of the epidermis, or stratum corneum, forms an effective barrier. Most substances cannot penetrate this barrier.
2. The dermis, not the epidermis, provides a foundation for the accessory structures such as hair and nails.
3. The amount of subcutaneous tissue varies and is determined by nutritional status and heredity.
4. Most receptor nerve endings, oil glands, sweat glands, and blood vessels are found within the dermis, not the subcutaneous fat.

5. The deepest epidermal sublayer supplies the epidermis with new cells after older superficial cells have been damaged or lost through normal wear.

Page Ref: 766-767

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 49-1 Identify the structure and functions of the skin and associated structures.

MNL Learning Outcome: Examine drugs used for skin disorders.

2) A client with a burn injury asks how skin cells are replaced. Which response should the nurse provide to the client?

1. "The epidermis supplies new cells after older cells have been damaged or lost."
2. "The dermis supplies new cells after older cells have been damaged or lost."
3. "The stratum corneum supplies new cells after older cells have been damaged or lost."
4. "The hypodermis supplies new cells after older cells have been damaged or lost."

Answer: 1

Explanation:

1. The deepest epidermal sublayer, the stratum basale, supplies the epidermis with new cells after older superficial cells have been damaged or lost through normal wear.
2. The dermis provides a foundation for the epidermis and accessory structures, such as hair and nails.
3. The stratum corneum contains an abundance of the protein keratin, which forms an effective barrier that repels bacteria and foreign matter; most substances cannot penetrate this barrier.
4. The hypodermis consists mainly of adipose tissue, which cushions, insulates, and provides a source of energy for the body.

Page Ref: 766

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 49-1 Identify the structure and functions of the skin and associated structures.

MNL Learning Outcome: Examine drugs used for skin disorders.

3) The nurse instructs a client prescribed a topical scabicide. Which client statement indicates teaching was effective?

1. "I will monitor the area daily for the next few weeks."
2. "I can expect some redness to occur."
3. "I need to sign a consent for this medication."
4. "I will leave the treatment on longer to make sure it is effective."

Answer: 1

Explanation:

1. The client should monitor the infected area daily for the next 1 to 2 weeks.
2. Any redness, swelling, itching, excoriation, or complaints of burning should be reported to the healthcare provider.
3. A consent is not necessary for these medications.
4. Leaving the treatment on for a longer period of time could result in an adverse reaction.

Page Ref: 770

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

4) The nurse notes that a client was prescribed tretinoin (Avita). Which question should the nurse include in the assessment?

1. "Have you noticed your eczema is clearing up?"
2. "Is your rosacea getting better?"
3. "Have you noticed the lesions healing?"
4. "Is your acne clearing up?"

Answer: 4

Explanation:

1. Tretinoin is not used to treat eczema.
2. Tretinoin is not used to treat rosacea.
3. Tretinoin is not used to treat lesions.
4. Tretinoin is prescribed to treat acne, acute promyelocytic leukemia, and wrinkles.

Page Ref: 773

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-5 Explain the pharmacotherapy of acne.

MNL Learning Outcome: Examine drugs used for skin disorders.

5) The nurse is preparing a teaching tool on the classification of skin disorders. Which information should the nurse include about inflammatory conditions?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. They can be caused by excessive sun exposure.
2. Overactive glands can cause the disorder.
3. Ticks, mites, and lice are the reason for the inflammation.
4. Athlete's foot is an example of this condition.
5. Benign neoplasms can cause this condition.

Answer: 1, 2

Explanation:

1. Injury and excessive sun exposure can cause an inflammatory condition.
2. Overactive glands can cause inflammation of the skin.
3. Ticks, mites, and lice are examples of infectious skin disorders.
4. Athlete's foot is an example of an infectious skin disorder.
5. Benign neoplasms are examples of neoplastic skin disorders.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 49-2 Describe how skin disorders are classified.

MNL Learning Outcome: Examine drugs used for skin disorders.

6) A client is diagnosed with rosacea. Which finding should the nurse expect to assess?

1. Small papules
2. Inflammatory pustules
3. Greasy scales
4. Red plaques

Answer: 1

Explanation:

1. Rosacea is characterized by small papules or inflammatory bumps without pus.
2. Inflammatory pustules are a finding associated with acne.
3. Greasy scales are associated with seborrheic dermatitis.
4. Red plaques are associated with psoriasis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-6 Explain the pharmacotherapy of rosacea.

MNL Learning Outcome: Examine drugs used for skin disorders.

7) A client is diagnosed with psoriasis vulgaris. Which information should the nurse include when teaching the client about this condition?

1. It appears after a streptococcal infection and will resolve spontaneously.
2. About 20% of clients will also have arthritis.
3. This type of psoriasis requires long-term treatment.
4. Average onset is 50 years of age.

Answer: 3

Explanation:

1. Eruptive psoriasis appears after a streptococcal infection and will resolve spontaneously.
2. About 20% of clients with psoriatic arthritis will also have arthritis.
3. Psoriasis vulgaris is the most common type of psoriasis and requires long-term treatment.
4. The average age of onset of pustular psoriasis is 50 years of age.

Page Ref: 776

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-8 Describe indications and adverse effects of drugs used to treat psoriasis.

MNL Learning Outcome: Examine drugs used for skin disorders.

8) A client being treated for acne asks why doxycycline is prescribed. Which response should the nurse make to the client?

1. "Acne contains bacteria."
2. "Your acne looks infected."
3. "The medication will prevent an infection."
4. "The medication will lessen the inflammation."

Answer: 4

Explanation:

1. Antibiotics are not specifically prescribed to treat bacteria.
2. Doxycycline is not prescribed to treat infected acne.
3. Antibiotics are not prescribed to prevent acne from becoming infected.
4. Antibiotics are sometimes prescribed to lessen the severe redness and inflammation associated with the disorder, especially when the acne is inflammatory and results in cysts and pustules.

Page Ref: 772

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 49-5 Explain the pharmacotherapy of acne.

MNL Learning Outcome: Examine drugs used for skin disorders.

9) A client asks why a glucocorticoid pill was not prescribed for dermatitis instead of a lotion.

Which information should the nurse discuss with the client?

1. Topical glucocorticoids are most effective in reducing pain.
2. Topical glucocorticoids have minimal adverse effects.
3. Topical glucocorticoids are the most effective for controlling inflammation.
4. Topical glucocorticoids are the most effective for curing dermatitis.

Answer: 3

Explanation:

1. Topical anesthetics are most effective in reducing pain.
2. Topical glucocorticoids can have serious adverse effects. The effects are based on the amount, frequency of application, and length of use.
3. Topical corticosteroids (glucocorticoids) are the most effective treatment for controlling the inflammation and itching of dermatitis.
4. Topical glucocorticoids do not cure dermatitis.

Page Ref: 775

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-7 Describe indications and adverse effects of drugs used to treat dermatitis.

MNL Learning Outcome: Examine drugs used for skin disorders.

10) A client is diagnosed with tinea capitis. Which treatment should the nurse anticipate being prescribed for this client?

1. Clotrimazole
2. Acyclovir
3. Undecylenic acid
4. Permethrin

Answer: 3

Explanation:

1. Clotrimazole is used for a variety of dermatologic mycoses.
2. Acyclovir is used to treat persistent herpes zoster and herpes simplex.
3. Tinea capitis is responsive to a topical over-the-counter prescription such as undecylenic acid.
4. Permethrin is a scabicide used for the treatment of lice.

Page Ref: 768

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 49-3 Identify the types of medications used to treat skin infections caused by bacteria, fungi, and viruses.

MNL Learning Outcome: Examine drugs used for skin disorders.

11) A client is experiencing a flare of psoriasis. For which medication should the nurse assess this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Beta blockers
2. Nonsteroidal anti-inflammatory drugs (NSAIDs)
3. Tetracyclines
4. Antifungals
5. Angiotensin-converting enzyme (ACE) inhibitors

Answer: 1, 2, 3, 5

Explanation:

1. Beta blockers are associated with triggering psoriasis.
2. NSAIDs are associated with triggering psoriasis.
3. Tetracyclines are associated with triggering psoriasis.
4. Antifungals are not associated with triggering psoriasis.
5. ACE inhibitors are associated with triggering psoriasis.

Page Ref: 776

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice.

| NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-8 Describe indications and adverse effects of drugs used to treat psoriasis.

MNL Learning Outcome: Examine drugs used for skin disorders.

12) The nurse is caring for a child with head lice. Which information should the nurse include in the teaching for the parent?

1. "Cutting your child's hair will make it easier to treat."
2. "Your child should be fine now. Just watch your child for a reinfection."
3. "Dispose of all the bedding in a sealed plastic bag."
4. "Remove all nits from the hair shaft with a nit comb or a fine-tooth comb."

Answer: 4

Explanation:

1. There is no need to cut the child's hair to remove the nits from the child's hair shaft.
2. The treatment is not complete until the nits are removed from the hair shaft.
3. It is not necessary to dispose of all the bedding. The parent should be instructed to wash the bedding and everything the child's hair has come in contact with.
4. After the shampoo treatment, the parent should remove all nits from the hair shaft with a nit comb or a fine-tooth comb.

Page Ref: 769

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

13) Clients who have contracted head lice in the nursing home are prescribed permethrin (Acticin). Which medical diagnosis should cause the nurse to be concerned before using this medication?

1. Diabetes mellitus
2. Asthma
3. Stroke
4. Hypothyroidism

Answer: 2

Explanation:

1. There is no contraindication to the use of permethrin in a client with diabetes mellitus.
2. Permethrin should be used cautiously in those with asthma.
3. There is no contraindication to the use of permethrin in a client who has had a stroke.
4. There is no contraindication to the use of permethrin in a client with hypothyroidism.

Page Ref: 769

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

14) The nurse is reviewing the structure and function of the skin. Which phrase describes the primary function of the dermis?

1. Provides foundation for hair and nails
2. Insulates the body
3. Provides energy
4. Forms a protective barrier against foreign matter

Answer: 1

Explanation:

1. The dermis provides a foundation for the epidermis and accessory structures, such as hair and nails.
2. The subcutaneous layer insulates the body.
3. The subcutaneous layer provides energy.
4. The epidermis is the outermost layer and provides a protective barrier to foreign material and bacteria.

Page Ref: 766

Cognitive Level: Remembering

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-1 Identify the structure and functions of the skin and associated structures.

MNL Learning Outcome: Examine drugs used for skin disorders.

15) A client with a burn injury asks how the skin will regenerate. Which skin layer should the nurse mention that supplies and replaces skin cells in the epidermis?

1. Stratum lucidum
2. Dermis basale
3. Melanocytes
4. Stratum basale

Answer: 4

Explanation:

1. The stratum lucidum is the middle layer.
2. This is not the layer that supplies new cells.
3. Melanocytes provide pigment.
4. The stratum basale is the deepest layer and provides new skin cells.

Page Ref: 766

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 49-1 Identify the structure and functions of the skin and associated structures.

MNL Learning Outcome: Examine drugs used for skin disorders.

16) The nurse is caring for a client with a skin condition. Which finding should indicate to the nurse that the client is experiencing dermatitis?

1. Flaky, silver scales
2. Swelling of nasal tissues
3. Small papules
4. Pruritus

Answer: 4

Explanation:

1. Psoriasis produces red plaques with silver scales.
2. Rosacea psoriasis causes swelling around the nasal tissue.
3. Rosacea produces small papules with no pus.
4. Dermatitis is characterized by redness, pain, and pruritus.

Page Ref: 774

Cognitive Level: Understanding

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-7 Describe indications and adverse effects of drugs used to treat dermatitis.

MNL Learning Outcome: Examine drugs used for skin disorders.

17) A client is prescribed topical dexamethasone as treatment for a skin condition. Which level of potency should the nurse explain when teaching the client about this medication?

1. Very high
2. High
3. Medium
4. Low

Answer: 4

Explanation:

1. Topical dexamethasone is a corticosteroid that does not have a very high potency.
2. Topical dexamethasone is a corticosteroid that does not have a high potency.
3. Topical dexamethasone is a corticosteroid that does not have a medium potency.
4. Topical dexamethasone is a corticosteroid with low potency.

Page Ref: 775

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-10 Use the nursing process and clinical judgment measurement model to care for patients who are receiving pharmacotherapy for skin disorders.

MNL Learning Outcome: Examine drugs used for skin disorders.

18) The nurse is discussing the adverse effects of phototherapy with ultraviolet-A (PUVA) therapy with a client experiencing psoriasis. Which symptom should the nurse include in the discussion?  
*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Nausea
2. Depression
3. Weight loss
4. Headache
5. Skin sensitivity

Answer: 1, 4, 5

Explanation:

1. Psoralens are oral or topical drugs that produce a photosensitive reaction when exposed to UV light. This reaction reduces the number of lesions, but unpleasant side effects such as nausea still occur, limiting the effectiveness of this therapy.
2. Depression is not an adverse effect of PUVA therapy.
3. Weight loss is not an adverse effect of PUVA therapy.
4. Psoralens are oral or topical drugs that produce a photosensitive reaction when exposed to UV light. This reaction reduces the number of lesions, but unpleasant side effects such as headache still occur, limiting the effectiveness of this therapy.
5. Psoralens are oral or topical drugs that produce a photosensitive reaction when exposed to UV light. This reaction reduces the number of lesions, but unpleasant side effects such as skin sensitivity still occur, limiting the effectiveness of this therapy.

Page Ref: 805

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-8 Describe indications and adverse effects of drugs used to treat psoriasis.

MNL Learning Outcome: Examine drugs used for skin disorders.

19) A client is experiencing itchy skin. Which skin area should the nurse explain is causing the client's symptom?

1. Dermis
2. Stratum basale
3. Epidermis
4. Subcutaneous tissue

Answer: 1

Explanation:

1. Most sensory nerves that transmit the sensations of touch, pressure, temperature, pain, and itch are located in the dermis, which is the middle layer of the skin.
2. The deepest epidermal sublayer, the stratum basale, supplies the epidermis with new cells after older superficial cells have been damaged or lost through normal wear.
3. The epidermis does not contain the sensory nerves that transmit the sensations of touch, pressure, temperature, pain, and itch.
4. The subcutaneous tissue does not contain the sensory nerves that transmit the sensations of touch, pressure, temperature, pain, and itch.

Page Ref: 767

Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 49-1 Identify the structure and functions of the skin and associated structures.

MNL Learning Outcome: Examine drugs used for skin disorders.

20) A client is prescribed permethrin (Nix) to treat body mites. Which information should the nurse include when teaching the client about this medication?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Make certain you get the 1% lotion."
2. "You should leave the lotion on your body for 10 minutes."
3. "You should expect almost immediate relief from the itching."
4. "You may feel some stinging or tingling while the lotion is being used."
5. "You should not use this medication if you are sensitive to chrysanthemums."

Answer: 4, 5

Explanation:

1. The 1% lotion is for head lice. This client should obtain the 5% lotion.
2. The medication should be allowed to remain on the body for 8 to 14 hours before removal.
3. Itching is caused by the penetration of the skin by the mites. It may persist up to 2 or 3 weeks.
4. Transient stinging or tingling is often noted with this medication.
5. Permethrin is obtained from chrysanthemums.

Page Ref: 769

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

21) An elementary school is experiencing an outbreak of lice and body mites. Which instructions should the nurse provide to the parents of the children?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Obtain over-the-counter antiparasitic lotion and apply according to label directions."
2. "Look for small bugs in your children's hair or small objects attached to the hair shaft."
3. "Look for bugs between fingers, under the arms, and in the pubic area."
4. "Open the windows and doors of your house and let fresh air blow through to eliminate lice and mites in the home."
5. "If lice or mites are found, stuffed animals should be washed or sealed in an airtight bag for 2 weeks."

Answer: 2, 5

Explanation:

1. If children do not have lice or mites, treatment is not necessary.
2. Lice are small bugs that are found in the hair. The eggs or nits are small objects found attached to the hair shaft.
3. Mites are nearly invisible to the naked eye. The parents should look for signs of scratching or complaints of itching in these areas.
4. Fresh air will not eliminate lice or mites.
5. Personal objects may harbor and spread the infestation to others or may reinfest the child. All objects should be washed, vacuumed, or sealed in plastic for 2 weeks.

Page Ref: 769-770

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning;

Teaching/Learning

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

22) A client is prescribed tretinoin (Avita) for acne. Which information should the nurse provide to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "It will take several weeks for you to see improvement in your skin."
2. "You should continue using your over-the-counter oil drying medication until you start to see effects from this prescription."
3. "Mild sun exposure will help this medication work more effectively."
4. "You will likely notice redness and scaling of your skin while using this medication."
5. "Continue to take the tetracycline previously prescribed for your cystic acne."

Answer: 1, 4

Explanation:

1. Initial improvement may take 4 to 8 weeks, while maximum therapeutic benefit may take 5 to 6 months.
2. The client should avoid preparations that dry the skin.
3. The client should avoid direct exposure to sunlight while using this medication.
4. Redness and scaling are expected effects of this medication.
5. Additive phototoxicity can occur if tretinoin is used concurrently with tetracycline.

Page Ref: 773

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 49-5 Explain the pharmacotherapy of acne.

MNL Learning Outcome: Examine drugs used for skin disorders.

23) A client is diagnosed with tinea unguium. Which area of the client's body should the nurse assess?

1. Feet
2. Pubic area
3. Scalp
4. Nails

Answer: 4

Explanation:

1. Tinea pedis is athlete's foot.
2. Tinea cruris or "jock itch" is located in the pubic area and groin.
3. Tinea capitis is ringworm of the scalp.
4. Tinea unguium is fungal infection of the nails.

Page Ref: 768

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-3 Identify the types of medications used to treat skin infections caused by bacteria, fungi, and viruses.

MNL Learning Outcome: Examine drugs used for skin disorders.

24) A client has lice infestation of the eyelids. Which teaching should the nurse provide to the client?

1. "Dilute the permethrin lotion with water before applying it to your eyelids."
2. "These lice should be pulled off manually."
3. "Apply a thin coat of petroleum jelly to your eyelashes once a day for a week."
4. "The systemic effect of the lotion you are using on your hair will kill these lice, so no specific treatment is necessary."

Answer: 3

Explanation:

1. Permethrin should not be used on the eyelids.
2. While removing the lice manually will work, it is not the best solution to the problem.
3. The petroleum jelly will kill the lice, which can then be removed by combing.
4. Specific treatment is necessary.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-4 Describe indications and adverse effects of drugs used for mite and lice infestations.

MNL Learning Outcome: Examine drugs used for skin disorders.

25) A client is prescribed 0.1% tacrolimus (Protopic) for treatment of severe atopic dermatitis. Which client statement indicates that teaching provided about this medication was effective?

1. "I could use this for my 1-year-old who also has atopic dermatitis."
2. "I can use this ointment on an as-needed basis for as long as I need."
3. "I am at increased risk for skin cancer because I am using this drug."
4. "I cannot use this ointment on my face."

Answer: 3

Explanation:

1. This medication is not approved for use in children under age 2.
2. This drug is generally used for short-term treatment of severe disease.
3. There is a small increase in risk of skin cancer when using this drug.
4. This medication can be used on the face and neck.

Page Ref: 775

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.15 Communicate care provided and needed at each transition of care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 49-7 Describe indications and adverse effects of drugs used to treat dermatitis.

MNL Learning Outcome: Examine drugs used for skin disorders.

26) A client has been advised to use an over-the-counter acne product that contains benzoyl peroxide and salicylic acid. Which information should the nurse include in the teaching?

1. "Use this medication once a day."
2. "Many people find this medication makes their acne worse."
3. "Gently wash your face within a few hours of applying this product."
4. "Do not take aspirin while using this product."

Answer: 1

Explanation:

1. The medication is typically applied once a day.
2. Benzoyl peroxide and salicylic acid do not generally make a client's acne worse.
3. Most products require gentle face-washing prior to application, but this is not the priority information.
4. There is no reason to avoid aspirin when taking this prescription.

Page Ref: 772

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-5 Explain the pharmacotherapy of acne.

MNL Learning Outcome: Examine drugs used for skin disorders.

27) A client is diagnosed with rosacea. Which nonpharmacological intervention should the nurse

recommend to the client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Avoid drinking alcohol."
2. "Spend some time in the sun each day."
3. "Avoid eating spicy foods."
4. "Drink your coffee at room temperature."
5. "Keep the temperature in your home warmer."

Answer: 1, 3, 4, 5

Explanation:

1. Alcohol dilates facial blood vessels and can make rosacea worse.
2. Sunlight should be avoided as it can make rosacea worse.
3. Spicy food should be avoided as it dilates facial blood vessels and can make rosacea worse.
4. Warm beverages should be avoided as they dilate facial blood vessels and can make rosacea worse.
5. The client should avoid warm temperatures as it can dilate facial blood vessels, which makes rosacea worse.

Page Ref: 772

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Basic Care and Comfort

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 49-6 Explain the pharmacotherapy of rosacea.

MNL Learning Outcome: Examine drugs used for skin disorders.

28) A client prescribed ultraviolet (UV) light therapy for a skin condition states the treatments are cost prohibitive and will use a tanning bed instead. Which information should the nurse provide to the client?

1. "Your insurance should pay for your treatments."
2. "The light therapy you require should be closely monitored."
3. "That will only work if your tanning salon has a particular type of bed."
4. "A tanning bed emits the same UV light that is used for therapy."

Answer: 2

Explanation:

1. The nurse should not offer an opinion on what the client's insurance will fund.
2. The UV light therapy prescribed by a healthcare provider is monitored. Tanning beds are not a substitute and should be avoided.
3. The type of bed in the tanning salon is irrelevant.
4. The nurse should not encourage the patient to use this type of therapy.

Page Ref: 779

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 49-8 Describe indications and adverse effects of drugs used to treat psoriasis.

MNL Learning Outcome: Examine drugs used for skin disorders.

29) The nurse reviews data collected when assessing a young child with atopic dermatitis. Which information in the history should the nurse anticipate for this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Family history of asthma
2. Allergy to soaps and lotions
3. Family history of cardiac disease
4. Prematurity
5. Illicit drug use in the mother during pregnancy

Answer: 1, 2

Explanation:

1. Family history of asthma predisposes the client to development of atopic dermatitis.
2. Allergy to soaps and lotions is often found in clients with atopic dermatitis.
3. Family history of cardiac disease does not increase client's risk for atopic dermatitis.
4. Prematurity does not increase risk for atopic dermatitis.
5. Illicit drug use in a parent does not increase risk of atopic dermatitis.

Page Ref: 774

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-7 Describe indications and adverse effects of drugs used to treat dermatitis.

MNL Learning Outcome: Examine drugs used for skin disorders.

30) A client is diagnosed with dermatitis. Which type of dermatitis should the nurse recall that commonly responds to topical pharmacotherapy?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Acne
2. Contact
3. Atopic
4. Psoriasis
5. Seborrheic

Answer: 2, 3, 5

Explanation:

1. Acne is not dermatitis.
2. Contact dermatitis commonly responds to topical pharmacotherapy.
3. Atopic dermatitis commonly responds to topical pharmacotherapy.
4. Psoriasis is a chronic inflammatory skin disorder.
5. Seborrheic dermatitis commonly responds to topical pharmacotherapy.

Page Ref: 774

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 49-7 Describe indications and adverse effects of drugs used to treat dermatitis.

MNL Learning Outcome: Examine drugs used for skin disorders.

### ***Pharmacology for Nurses, 7e (Adams)***

#### **Chapter 50 Drugs for Eye and Ear Disorders**

1) A client is diagnosed with glaucoma. Which information should the nurse provide when teaching the client about this disorder?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "Having diabetes is a risk factor in the development of glaucoma."
2. "Glaucoma exists when the pressure in your eye is high enough to cause optic nerve damage."
3. "High blood pressure can certainly lead to the development of glaucoma."
4. "A history of hyperthyroidism is a risk factor in the development of glaucoma."
5. "Drugs like antihistamines and antidepressants can contribute to glaucoma."

Answer: 1, 2, 3, 5

Explanation:

1. Having diabetes mellitus is a risk factor for glaucoma.
2. Glaucoma occurs when the pressure in the eye is high enough to cause optic nerve damage.
3. High blood pressure can lead to the development of glaucoma.
4. A history of treatment for hyperthyroidism is not associated with the development of glaucoma.
5. Medications like antihistamines and antidepressants can cause glaucoma.

Page Ref: 785

Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery.

| NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

2) A client is diagnosed with glaucoma. Which statement indicates teaching provided to the client was effective?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My eye cannot drain the fluid that it produces."
2. "One of the first signs of this is pain behind my eyes."
3. "My type of glaucoma is a medical emergency."
4. "This is a gradual process; it may take years to develop."
5. "This is the most common kind of glaucoma."

Answer: 1, 4, 5

Explanation:

1. In cases of open-angle glaucoma, the cause for the high pressure is an imbalance in the production and drainage of fluid in the eye (aqueous humor).
2. With open-angle glaucoma, the person will have no warning sign or hint that anything is wrong.
3. Closed-angle glaucoma, not open-angle glaucoma, is a medical emergency.
4. Open-angle glaucoma often takes years to develop.
5. Open-angle glaucoma is the most common type of glaucoma.

Page Ref: 786

Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

3) A client is having an eye examination. Which information should the nurse provide prior to administering cycloplegic eye drops?

1. The drugs will dilate the pupil and lubricate the eye to provide additional comfort during the examination.
2. The drops will paralyze the muscles that move the eye so that examination can take place.
3. The drops will dilate the pupil so that the healthcare provider can better visualize the retina during examination.
4. The drops dilate the pupil and paralyze the ciliary muscle to prevent the lens from moving during examination.

Answer: 4

Explanation:

1. Cycloplegic eyedrops dilate the pupil and paralyze the ciliary muscle; they do not lubricate the eye.
2. The drops do not prevent eye movement.
3. This is only a partial explanation of the effects of these drops.
4. Cycloplegic eyedrops dilate the pupil and paralyze the ciliary muscle. This allows visualization during the exam and also keeps the lens from moving.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation  
Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

4) A client with glaucoma reports the timolol (Timoptic) eyedrops are stinging the eyes. Which response should the nurse provide to the client?

1. "Hold the next dose and contact your healthcare provider."
2. "This is a normal and expected effect of the drops."
3. "Your eyedrops may have expired; check the date."
4. "You should flush your eyes immediately with saline."

Answer: 2

Explanation:

1. The healthcare provider does not need to be contacted; stinging is a normal effect of the eyedrops.
2. It is expected that timolol will cause stinging when used.
3. The drops should cause stinging; it means they have not expired.
4. Washing the eye with saline will dilute the eyedrops; this is not recommended.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

5) A client has been using medication to treat glaucoma. Which test should the nurse anticipate that determines effectiveness of medication therapy?

1. Visual field changes
2. Dilation of the pupils
3. Light refraction
4. Intraocular pressure

Answer: 4

Explanation:

1. Visual field changes are not used to evaluate the effectiveness of medication to treat glaucoma.
2. Pupil dilation is not used to evaluate the effectiveness of medication to treat glaucoma.
3. Light refraction is not used to evaluate the effectiveness of medication to treat glaucoma.
4. Intraocular pressure measurement is used to evaluate the effectiveness of medication to treat glaucoma.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

6) A client is prescribed eyedrops for glaucoma. Which information should the nurse include when teaching about this medication?

1. Keep the lights dim after administration to avoid light sensitivity.
2. Instill the drops into the conjunctival sack and lacrimal duct area.
3. Hold pressure for 5 minutes to prevent leakage into the nasopharynx.
4. Avoid wearing contact lenses until treatment is completed.

Answer: 2

Explanation:

1. Light sensitivity should be immediately reported to the healthcare provider.
2. Drops should be instilled in the conjunctival sac and the lacrimal duct area.
3. Pressure should be held for 1 minute to prevent leakage into the nasopharynx.
4. Contact lenses should be removed prior to administration of the prescription and can be replaced 15 minutes afterward.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning; Teaching/Learning

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

7) A client has a buildup of cerumen in the ears. Which initial technique should the nurse use to facilitate the removal of the cerumen?

1. Use a sterile cotton-tipped applicator.
2. Instill 2% acetic acid in each ear.
3. Flush with warm water.
4. Instill an earwax softener.

Answer: 4

Explanation:

1. A cotton-tipped applicator can cause further impaction of the cerumen.
2. Acetic acid is not the best method for cerumen removal.
3. Flushing the ear canal with warm water is not a technique used to facilitate the drainage of cerumen.
4. Initially the nurse should instill an earwax softener followed by irrigation with tepid water and a syringe.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Reduction of Risk Potential

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 50-5 Identify the indications and adverse effects of otic medications.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

8) The nurse instructs a client about the treatment for open-angle glaucoma. Which client statement indicates teaching was effective?

1. "The eyedrops are only required if I feel discomfort in my eyes."
2. "The strength of the prescription will continue to be increased."
3. "I can stop the eyedrops when the glaucoma has resolved."
4. "It may take 6 to 8 weeks for a medication to be effective."

Answer: 4

Explanation:

1. Eyedrops must be used continuously; most clients with glaucoma do not experience eye pain.
2. Increasing the dosage of eyedrops is only necessary if the ocular pressure is not controlled; this must be determined by the healthcare provider, not the client.
3. Glaucoma can be controlled, but it will not resolve; the client cannot stop using the eyedrops.
4. Some medications may take 6 to 8 weeks to reach peak effectiveness.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

9) A client with glaucoma is prescribed a prostaglandin analog. Which information about the

mechanism of action should the nurse explain when instructing on this medication?

1. Produces miosis, constriction of the pupil, and contraction of the ciliary muscle
2. Enhances the outflow of aqueous humor
3. Decreases the production of aqueous humor by the ciliary body
4. Decreases the formation of aqueous humor by reducing the plasma volume

Answer: 2

Explanation:

1. Cholinergic agonists produce miosis, constriction of the pupil, and contraction of the ciliary muscle.
2. Prostaglandin analogs enhance the outflow of aqueous humor.
3. Beta adrenergic antagonists decrease the production of aqueous humor by the ciliary body.
4. Osmotic diuretics are used to quickly reduce plasma volume, thus reducing the formation of aqueous humor.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.  
MNL Learning Outcome: Examine drugs used for eye and ear disorders.

10) A client experiences a significant systemic absorption of timolol (Betimol). For which effect should the nurse assess in this client?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Blurred vision
2. Dysrhythmias
3. Hypertension
4. Hypotension
5. Hyperglycemia

Answer: 2, 4

Explanation:

1. Blurred vision is associated with the instillation of eyedrops.
2. Dysrhythmias can occur if this medication is systemically absorbed.
3. Hypertension is not a risk factor associated with the absorption of timolol.
4. Hypotension can occur if this medication is systemically absorbed.
5. Hyperglycemia is not a risk factor associated with the absorption of timolol.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

11) The nurse instructs a client about prescribed timolol (Timoptic). Which client statement indicates teaching was effective?

1. "I understand I may experience blurred vision after administering the prescription."
2. "I will store my drops in the refrigerator and make sure it is room temperature before instilling the drops."
3. "I will restrict my caffeine to one cup of coffee per day."
4. "I will discontinue the drops if my eyes appear reddened."

Answer: 1

Explanation:

1. Blurred vision is a temporary side effect after instilling the drops.
2. Refrigeration is not necessary for timolol eyedrops.
3. There is no need to reduce caffeine when a client uses timolol eyedrops.
4. Timolol must be continued to prevent loss of vision; the client should not discontinue them.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN Competencies:

Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

12) A client is diagnosed with an attack of closed-angle glaucoma. Which classification of medication should the nurse anticipate giving to this client?

1. Beta-adrenergic antagonists
2. Prostaglandin analogs
3. Osmotic diuretics
4. Carbonic anhydrase inhibitors

Answer: 3

Explanation:

1. Beta-adrenergic antagonists are used to treat open-angle glaucoma.
2. Prostaglandin analogs are the first line of prescriptions used to treat open-angle glaucoma.
3. Osmotic diuretics are used for the emergency treatment for acute closed-angle glaucoma attacks.
4. Carbonic anhydrase inhibitors may be administered topically or systemically to reduce intraocular pressure in clients with open-angle glaucoma. Beta-adrenergic antagonists are used to treat open-angle glaucoma.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

13) The nurse is assessing a client during a routine eye examination. Which statement indicates the client may be experiencing closed-angle glaucoma?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. "My vision has gotten worse over time."
2. "I have a headache that will not go away."
3. "I see halos around bright lights."
4. "I have been experiencing a dull pain in my eyes."
5. "My eyes are so bloodshot."

Answer: 2, 3, 4, 5

Explanation:

1. Declining vision over time is associated with open-angle glaucoma.
2. Signs and symptoms of closed-angle glaucoma include headaches.
3. Signs and symptoms of closed-angle glaucoma include halos around bright lights.
4. Signs and symptoms of closed-angle glaucoma include dull pain in the eyes.
5. Signs and symptoms of closed-angle glaucoma include bloodshot eyes.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

14) A client is being treated for glaucoma. Which symptom should indicate to the nurse that the client has experienced systemic absorption of cholinergic eyedrops?

1. Bradycardia
2. Salivation
3. Hypotension
4. Tremors

Answer: 2

Explanation:

1. Bradycardia is not a symptom of systemic absorption of a cholinergic eyedrop.
2. Salivation is a symptom of systemic absorption of a cholinergic eyedrop.
3. Hypotension is not a symptom of systemic absorption of a cholinergic eyedrop.
4. Tremors are not a symptom of systemic absorption of a cholinergic eyedrop.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

15) The nurse is preparing a teaching tool about open-angle glaucoma. Which information should the nurse include in the tool?

1. Bilateral with a slow onset
2. Less common than closed-angle glaucoma
3. Accompanied by eye pain
4. Unilateral with a rapid onset

Answer: 1

Explanation:

1. Open-angle glaucoma is bilateral and has a slow onset over several years.
2. Open-angle glaucoma is more common.
3. Open-angle glaucoma, in contrast to closed-angle glaucoma, has no symptoms.
4. Closed-angle glaucoma is unilateral with rapid onset.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

16) A client is taking latanoprost (Xaltan) as treatment for glaucoma. Which finding should the nurse identify as an adverse effect of this medication?

1. Hypotension
2. Nausea
3. Tachycardia
4. Eye pain

Answer: 4

Explanation:

1. Hypotension is an adverse effect of beta-adrenergic blockers.
2. Nausea is not an adverse effect.
3. Tachycardia is an adverse effect of carbonic anhydrase inhibitors.
4. Eye pain, burning, and dry eyes are adverse effects of prostaglandins.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

17) A client is prescribed a beta-adrenergic blocker as treatment of open-angle glaucoma. Which information should the nurse include when instructing the client about this medication?

1. Increases the outflow of aqueous humor.
2. Constricts the pupil.
3. Dilates the pupil to increase outflow.
4. Reduces production of aqueous humor.

Answer: 4

Explanation:

1. Prostaglandins increase the outflow of aqueous humor.
2. Cholinergic agonists constrict the pupil to allow for more room for outflow.
3. Carbonic anhydrase inhibitors dilate the pupil to increase outflow.
4. Beta-adrenergic blockers decrease the production of aqueous humor.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

18) A client is having an eye examination. Which drug classification should the nurse anticipate

giving to this client?

1. Mydriatic
2. Vasoconstrictor
3. Prostaglandin
4. Beta-adrenergic blocker

Answer: 1

Explanation:

1. Mydriatics dilate the pupil for better visualization.
2. Vasoconstrictors are used for irritation and dryness of the eye.
3. Prostaglandins are used for open-angle glaucoma.
4. Beta-adrenergic blockers are used for glaucoma.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

19) A client is diagnosed with mastoiditis. Which medication should the nurse anticipate being prescribed for this client?

1. Corticosteroid
2. Wax softener
3. Antifungal agent
4. Antibiotic

Answer: 4

Explanation:

1. Corticosteroids can be used to treat inflammation, but mastoiditis requires aggressive antibiotic therapy.
2. Wax softeners are used to soften or eliminate cerumen.
3. Antifungals are not used to treat mastoiditis.
4. The treatment of acute mastoiditis involves aggressive antibiotic therapy for 14 days.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 50-5 Identify the indications and adverse effects of otic medications.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

20) A client has dry eyes caused by ocular inflammation. Which medication should the nurse expect to be prescribed to enhance tear production?

1. Topical corticosteroid
2. Cetirizine ophthalmic (Zerviate)
3. Lifitegrast (Xiidra)
4. Olopatadine (Pataday)

Answer: 3

Explanation:

1. Topical corticosteroid can be used to treat conjunctivitis and other inflammatory conditions.
2. Cetirizine ophthalmic is an antihistamine that is used to decrease the redness and itching associated with allergic conjunctivitis.
3. Lifitegrast is prescribed to enhance the production of tears.
4. Olopatadine is a combination antihistamine—mast cell stabilizer used to treat allergic conjunctivitis.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

21) A client is having an eye examination. Which measurements of intraocular pressure (IOP) should the nurse recognize requires pharmacological intervention?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. A single reading of 14 mmHg
2. A consistent reading trending between 15 and 16 mmHg
3. A single reading of 19 mmHg
4. Readings consistently higher than 21 mmHg
5. A single reading of 32 mmHg

Answer: 4, 5

Explanation:

1. This reading is slightly lower than normal and does not indicate need for intervention.
2. The median IOP in the population is between 15 and 16 mmHg.
3. This reading does not require special consideration.
4. Some persons may tolerate IOP at this level, but in most cases, pharmacologic intervention is indicated.
5. A single reading above 30 mmHg should be treated to prevent optic nerve damage.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Reduction of Risk Therapy

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.5 Develop a plan of care. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. |

Nursing/Integrated Concepts: Nursing Process: Planning

Learning Outcome: 50-2 Compare and contrast open-angle and closed-angle glaucoma.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

22) A client has been taking medication for open-angle glaucoma. Which assessment finding indicates the pharmacological treatment is therapeutic?

1. Decreased photophobia
2. Intraocular pressure of 32 mmHg
3. Improved visual acuity
4. Absence of headaches

Answer: 3

Explanation:

1. Decreased photophobia is not an indication the treatment has been therapeutic.
2. An intraocular pressure of 32 mmHg requires pharmacological intervention.
3. Improved visual acuity indicates the pharmacological treatment is therapeutic.
4. Absence of headaches is not an indication the treatment has been therapeutic.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Evaluation

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

23) A client is prescribed beta-adrenergic blocker eyedrops as treatment for glaucoma. Which condition in the client should cause the nurse concern?

1. Asthma
2. Diabetes mellitus
3. Pancreatitis
4. Duodenal ulcer

Answer: 1

Explanation:

1. Because of the potential for systemic effects, these drugs should be used with caution in clients with asthma or heart failure. Beta-adrenergic effects may cause bronchoconstriction if the medication is absorbed systemically.
2. Diabetes mellitus is not a concern if the prescription is systemically absorbed.
3. Pancreatitis is not a concern if the prescription is systemically absorbed.
4. A duodenal ulcer is not a concern if the prescription is systemically absorbed.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

24) A client asks how netarsudil (Rhopressa) will decrease intraocular pressure (IOP). Which information should the nurse provide to the client?

1. The medication inhibits an enzyme that increases the flow of fluid out of the eye.
2. The medication will lower IOP by enhancing the outflow of aqueous humor.
3. The medication will decrease the production of aqueous humor.
4. The medication acts by decreasing the production of aqueous humor by the ciliary body.

Answer: 1

Explanation:

1. Netarsudil inhibits an enzyme called Rho kinase. This increases the outflow of aqueous humor through the trabecular network and reduces IOP.
2. Prostaglandin analogs lower IOP by enhancing the outflow of aqueous humor.
3. Alpha<sub>2</sub>-adrenergic agonists decrease the production of aqueous humor.
4. Beta-adrenergic agonists act by decreasing the production of aqueous humor by the ciliary body.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.6 Demonstrate accountability for care delivery. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

25) A client is taking brinzolamide (Azopt) for glaucoma. Which finding should the nurse identify as an adverse effect of this medication?

1. Elevated blood pressure
2. Bitter taste
3. Golden brown deposits on the cornea
4. Increased length and thickness of eyelashes

Answer: 2

Explanation:

1. Elevated blood pressure is an adverse effect of systemic absorption of a beta-adrenergic antagonist.
2. A bitter taste is an adverse effect of a carbonic anhydrase inhibitor used to treat glaucoma. Patients must be cautioned when taking brinzolamide because they contain sulfur and may cause an allergic reaction.
3. Golden brown deposits on the cornea is an adverse effect of the carbonic anhydrase inhibitor netarsudil.
4. Increased length and thickness of eyelashes are adverse effects of prostaglandin analogs.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: V.A.4 Delineate general categories of errors and hazards in care. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-3 Compare and contrast the different drug classes for treating glaucoma, explaining their basic actions and adverse effects.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

26) The nurse is reviewing the anatomy and physiology of the eye. Which structure should the nurse identify that contains aqueous humor?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Fovea
2. Sclera
3. Conjunctiva
4. Anterior chamber
5. Posterior chamber

Answer: 4, 5

Explanation:

1. The fovea does not contain aqueous humor.
2. The sclera does not contain aqueous humor.
3. The conjunctiva does not contain aqueous humor.
4. Aqueous humor is found in the anterior chamber of the internal eye.
5. Aqueous humor is found in the posterior chamber of the internal eye.

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Cognitive Level: Understanding

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN

Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-1 Identify the basic anatomy of the eye.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

27) A client is diagnosed with otitis media. With which condition is this inflammation often associated?

*Note: Credit will be given only if all correct choices and no incorrect choices are selected. Select all that apply.*

1. Allergies
2. Asthma
3. Colds
4. Lower respiratory infections
5. Auditory tube irritations

Answer: 1, 5

Explanation:

1. Otitis media, inflammation of the middle ear, is most often associated with allergies.
2. Otitis media is not associated with asthma.
3. Otitis media is not associated with colds.
4. Otitis media is not associated with lower respiratory infections.
5. Otitis media, inflammation of the middle ear, is most often associated with auditory tube irritation.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.3 Integrate assessment skills in practice. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Assessment

Learning Outcome: 50-6 Use the nursing process and the clinical judgment measurement model to care for patients who are receiving pharmacotherapy for eye and ear disorders.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

28) The nurse provides discharge teaching for a client who received a mydriatic drug. Which client statement indicates further teaching is required?

1. "I may have periods of blurry vision for several days."
2. "I will wear sunglasses while I am outside."
3. "I will not drive until this drug wears off."
4. "I will use artificial tears if my eyes feel dry."

Answer: 4

Explanation:

1. Blurry vision may occur for a period of several days.
2. The client will have photophobia, and sunglasses should be worn while outside.
3. The client should not drive as vision will be blurry.
4. The client does not require artificial tears.

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Cognitive Level: Analyzing

Client Need/Sub: Physiological Integrity: Pharmacological and Parenteral Therapies

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.7 Evaluate outcomes of care. | NLN

Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care. | Nursing/Integrated Concepts: Nursing Process: Evaluation; Teaching/Learning

Learning Outcome: 50-4 Identify the indications and adverse effects of mydriatics, cycloplegics, and drugs used to treat dry eye disease.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

29) A client asks what it means to have swimmer's ear. Which information should the nurse include in the discussion?

1. "There is fluid trapped in the middle ear."
2. "It is an inflammation of your external auditory canal."
3. "The infection is behind the tympanic membrane."
4. "There is fluid in the vestibule of the inner ear."

Answer: 2

Explanation:

1. Fluid may be trapped in the middle ear in otitis media.
2. Swimmer's ear, also known as external otitis, is an inflammation of the external auditory canal, also referred to as the outer ear.
3. Swimmer's ear is not an infection behind the tympanic membrane.
4. Swimmer's ear is not fluid in the vestibule of the inner ear.

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Cognitive Level: Applying

Client Need/Sub: Physiological Integrity: Physiological Adaptation

Standards: QSEN Competencies: I.B.3 Provide patient-centered care with sensitivity and respect for the diversity of human experience. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. | NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation

Learning Outcome: 50-5 Identify the indications and adverse effects of otic medications.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.

30) The nurse is caring for a client with an excess amount of aqueous humor. Which eye structure should the nurse explain is responsible for the secretion of aqueous humor?

1. Anterior chamber
2. Posterior chamber
3. Ciliary body
4. Canal of Schlemm

Answer: 3

Explanation:

1. Aqueous humor is not secreted by the anterior chamber.
2. Aqueous humor is not secreted by the posterior chamber.
3. Aqueous humor is secreted by the ciliary body.
4. Aqueous humor is not secreted by the Canal of Schlemm.

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Cognitive Level: Applying

Client Need/Sub: Health Promotion and Maintenance

Standards: QSEN Competencies: III.A.1 Demonstrate knowledge of basic scientific methods and processes. | AACN Domains and Competencies: 2.2 Communicate effectively with individuals. |

NLN Competencies: Knowledge and Science: Integration of knowledge from nursing and other disciplines. | Nursing/Integrated Concepts: Nursing Process: Implementation; Teaching/Learning

Learning Outcome: 50-1 Identify the basic anatomy of the eye.

MNL Learning Outcome: Examine drugs used for eye and ear disorders.