TEST BANK

Test Bank For Focus on Nursing Pharmacology 7th Edition by Amy M. Karch

Focus on Nursing SEVENTH EDITION Pharmacology

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Cognitive Level: Application Difficulty: Moderate Integrated Process: Nursing process

- 1.A nurse working in radiology administers iodine to a patient who is having a computerized axial tomography (CAT) scan. A nurse working on an oncology unit administers chemotherapy to patients who have cancer. At the Public Health Department, a nurse administers a measles-mumps-rubella (MMR) vaccine to a 14-month-old child as a routine immunization. Which branch of pharmacology best describes the actions of all three nurses?
- A) Pharmacoeconomics
- B) Pharmacotherapeutics
- C) Pharmacodynamics
- D) Pharmacokinetics

Ans:

B Response:

Pharmacology is the study of the biologic effects of chemicals. Nurses are involved with clinical pharmacology or pharmacotherapeutics, which is a branch of pharmacology that deals with the uses of drugs to treat, prevent, and diagnose disease. The nurse working in radiology is administering a drug to help diagnose a disease. The nurse working on an oncology unit is administering a drug to help treat a disease. Pharmacoeconomics includes any costs involved in drug therapy. Pharmacodynamics involves how a drug affects the body, and pharmacokinetics is how the body acts on the drug.

Cognitive Level: Comprehension Difficulty: Easy Integrated Process: Nursing process

Integrated Process: Nursing process

- 2.A physician has ordered intramuscular injections of morphine, a narcotic, every 4 hours as needed for pain for a motor vehicle accident victim. The nurse is aware that there is a high abuse potential for this drug; therefore, morphine is categorized as a:
- A) Schedule I drug
- B) Schedule II drug
- C) Schedule III drug
- D) Schedule IV drug

Ans:

B Response:

Narcotics such as morphine are considered schedule II drugs because of the high abuse potential with severe dependence liability. Schedule I drugs have high abuse potential and no accepted medical use. Schedule III drugs have a lesser abuse potential than schedule II drugs and an accepted medical use. Schedule IV drugs have low abuse potential and limited dependence liability.

Cognitive Level: Comprehension Difficulty: Easy Integrated Process: Communication and documentation

3.A nurse working for a drug company is involved in phase III drug evaluation studies. Which of the following might the nurse be responsible for during this stage of drug development?

- A) Working with animals who are given experimental drugs
- B) Monitoring drug effects in patients who are selected to participate in a study, who have the disease that the drug is meant to treat
- C) Collecting records of symptoms that participants experience while taking a drug and determining whether they are caused by the disease or the drug
- D) Informing healthy, young volunteer participants of possible risks that could occur from taking an experimental drug
- Ans:

C Response:

Phase III studies involve use of a drug in a vast clinical market where patients are asked to record any symptoms they experience while taking the drugs. Nurses may be responsible for helping collect and analyze the information to be shared with the Food and Drug Administration (FDA). Use of animals in drug testing is done in the preclinical trials. A select group of patients who are involved in phase II studies participate in studies where the participants have the disease the drug is intended to treat. These patients are monitored closely for drug effects. Phase I studies involve healthy human volunteers who are usually paid for their participation. Nurses may observe for adverse effects and toxicity.

Cognitive Level: Comprehension

Difficulty: Moderate

Integrated Process: Nursing Process

- 4. Which of the following concepts is considered when generic drugs are substituted for brand-name drugs?
- A) Bioavailability
- B) Critical concentration
- C) Distribution
- D) Half-life
- Ans:

Response:

Α

Bioavailability is the portion of a dose of a drug that reaches the systemic circulation and is available to act on body cells. Binders used in a generic drug may not be the same as those used in the brand-name drug. Therefore, the way the body breaks down and uses the drug may differ, which may eliminate a substitution. Critical concentration is the amount of a drug that is needed to cause a therapeutic effect. Distribution is the phase of pharmacokinetics that involves the movement of a drug to the body's tissues. A drug's half-life is the time it takes for the amount of drug to decrease to one-half of the peak level.

Cognitive Level: Analysis Difficulty: Difficult Integrated Process: Teaching/learning

- 5.A nurse is teaching her patient about the use of over-the-counter (OTC) drugs. Which of the following statements best informs the patient about their safe use?
- A) "OTC drugs are products that are available without prescription for self-treatment of minor complaints."
- B) "OTC drugs are considered medications and should be reported on a drug history."

- C) "OTC drugs were approved as prescription drugs but later were found to be safe without the need for a prescription."
- D) "OTC drugs need to be taken with caution. They can mask the signs and symptoms of an underlying disease and interfere with prescription drug therapy."

Ans:

Response:

D

OTC drugs are considered medications and should be reported. OTC drugs are available without a prescription, although some were first approved as prescription drugs. The most important teaching should relate to their safe use and that OTC drugs can mask symptoms of disease and interfere with prescribed drugs.

Cognitive Level: Knowledge Difficulty: Easy

Integrated Process: Nursing Process

- 6. Which of the following legislative acts allowed the Food and Drug Administration (FDA) to tighten control over the quality of drugs and required that safety and efficacy standards be established?
- A) Pure Food and Drug Act of 1906
- B) Federal Food, Drug, and Cosmetic Act of 1938
- C) Durham Humphrey Amendment of 1951
- D) Kefauver-Harris Act of 1962
- Ans:

D Response:

The Kefauver-Harris Act was the result of the use of the 1960s drug thalidomide (*Thalomid*). The public concern led to the legislation that gave the FDA regulatory control over testing and evaluating of drugs and allowed it to set standards for efficacy and safety. The Pure Food and Drug Act required labeling to eliminate false claims. The Federal Food, Drug, and Cosmetic Act gave the FDA the power to enforce standards for testing drug toxicity and monitoring labeling. The Durham-Humphrey Amendment enforced prescriptions for distribution.

Cognitive Level: Application

Difficulty: Moderate

Integrated Process: Teaching/learning

7.A nurse is instructing a pregnant patient concerning the potential risk to her fetus from a pregnancy category B drug. The nurse would inform the patient that:

- A) "Adequate studies in pregnant women have demonstrated there is no risk to the fetus."
- B) "Animal studies have not demonstrated a risk to the fetus but there have been no adequate studies in pregnant women."
- C) "Animal studies have shown an adverse effect on the fetus but there are no adequate studies in pregnant women."
- D) "There is evidence of human fetal risk but the potential benefits from use of the drug may be acceptable despite potential risks."

Ans:

Response:

В

Category B indicates that animal studies have not demonstrated a risk to the fetus but

there have been no adequate studies in pregnant women. However, there have not been adequate studies in pregnant women to demonstrate risk to a fetus during the first trimester of pregnancy and no evidence of risk in later trimesters. Category A indicates that adequate studies in pregnant women have not demonstrated a risk to the fetus in the first trimester or in later trimesters. Category C indicates that animal studies have shown an adverse effect on the fetus but there have been no adequate studies in humans. Category D reveals evidence of human fetal risk, but the potential benefits from the use of the drugs in pregnant women may outweigh the risks.

Cognitive Level: Analysis

Difficulty: Difficult

Integrated Process: Teaching/learning

- 8. Discharge planning for patients leaving the hospital should include instructions on the use of over-the-counter (OTC) drugs. Which comment by the patient would demonstrate a good understanding of OTC drugs?
- A) "OTC drugs are always safe and will not cause bad effects."
- B) "OTC drugs have been around for years and have not been tested by the Food and Drug Administration (FDA)."
- C) "OTC drugs are different from any drugs available by prescription and cost less."
- D) "OTC drugs are thought to be safe when taken as directed."

Ans:

Response:

D

OTC drugs are drugs that have been determined to be safe when taken as directed. They may have originally been prescription drugs that were tested by the FDA or they may have been grandfathered in when the FDA laws changed. OTC education should always be included as a part of the hospital discharge instructions.

Cognitive Level: Comprehension

Difficulty: Moderate

Integrated Process: Teaching/Learning

9. Which of the following would be the best source of drug information for a nurse?

- Drug Facts and Comparisons book
- B) A nurse's drug guide
- C) A drug package insert
- D) The *Physician's Drug Reference* (PDR)
- Ans:

A)

Response:

В

The most user-friendly drug source for a nurse is a nurse's drug guidebook. A guide provides nursing implications and patient teaching points that are most useful to nurses. The *Drug Facts and Comparisons* book provides a wide range of drug information but is hard to manipulate and is very expensive. A package insert contains all of the chemical and drug company research information about a drug; however, the information can be difficult to understand and the print is very small. The PDR is heavily cross-referenced and difficult to use.

Cognitive Level: Comprehension

Difficulty: Moderate

Integrated Process: Nursing Process

- 10. Which of the following statements best defines how a chemical becomes a drug?
- A) A chemical must have a proven therapeutic value or efficacy without severe toxicity or damaging properties to become a drug.
- B) A chemical becomes a drug when it is introduced into the body to cause a change.
- C) A chemical is considered a drug when the Food and Drug Administration (FDA) approves its release to be marketed.
- D) A chemical must have demonstrated therapeutic value to become a drug.

Ans:

Response:

А

A chemical must undergo a series of tests to determine its therapeutic value and efficacy without severe toxicity or damaging properties before it is termed a drug. Test results are reported to the FDA, which may or may not give approval.

Cognitive Level: Analysis

Difficulty: Difficult

Integrated Process: Nursing process

- 1. In which of the following patients would a nurse expect to see an alteration in drug metabolism?
- A) A 35-year-old female with cervical cancer
- B) A 41-year-old male with kidney stones
- C) A 50-year-old male with cirrhosis of the liver
- D) A 62-year-old female in acute renal failure
- Ans:

Response:

С

The liver is the most important site of drug metabolism. If the liver is not functioning effectively, as in patients with cirrhosis, drugs will not be metabolized normally and toxic levels could develop. In cirrhosis patients the drug dosage will need to be altered to ensure normal levels in the body.

Cognitive Level: Analysis

Difficulty: Difficult

Integrated Process: Nursing process

- 2.A patient has a drug level of 50 units/mL and the drug's half-life is 1 hour. If concentrations above 25 units/mL are considered toxic and no more drug is given, how long will it take for the blood level to reach the nontoxic range?
- A) 30 minutes
- B) 1 hour
- C) 2 hours
- D) 3 hours

Ans:

Response:

С

Half-life is the time required for the serum concentration of a drug to decrease by 50%. After 1 hour, the serum concentration would be 25 units/mL (50/2). After 2 hours, the serum concentration would be 12.5 units/mL (25/2) and reach the nontoxic range.

Cognitive Level: Analysis Difficulty: Difficult

Integrated Process: Nursing process

- 3.A nurse is caring for a patient who has recently moved from Vermont to south Florida. The patient has been on the same antihypertensive drug for 6 years and has had stable blood pressures and no side effects. Since her move, however, she reports having "dizzy spells and weakness" and feels that the drug is no longer effective. The nurse knows that one possible reason for the change in the effectiveness of the drug could be which of the following?
- A) The impact of the placebo effect on the patient's response
- B) The accumulative effect of the drug if it has been taken for many years
- C) The impact of the warmer environment on the patient's physical state
- D) Problems with patient compliance with the drug regimen while on vacation
- Ans:

Response:

С