

UNFOLDING

Reasoning

Case Study

Eating Disorder/Electrolyte Imbalances

UNFOLDING Reasoning Case Study

(Mandy White, 16 years old- Primary Concept
Fluid and Electrolyte Balance)

Eating Disorder/Electrolyte Imbalances



Mandy White, 16 years old

Primary Concept
Fluid and Electrolyte Balance
Interrelated Concepts (In order of emphasis)
<ol style="list-style-type: none">1. Acid-base2. Nutrition3. Perfusion4. Coping5. Mood and Affect6. Clinical Judgment7. Communication8. Collaboration9. Patient education

Eating Disorder/Electrolyte Imbalances

History of Present Problem:

Mandy White is a 16-year-old adolescent who has struggled with anorexia nervosa since the age of 11. She admits to drinking several large glasses of water daily. Mandy has also been recently engaging in self injurious behavior (SIB) of cutting both forearms and thighs with broken glass, causing numerous lacerations and scars.

Mandy presents to the emergency department (ED) with increasing weakness, lightheadedness and a near syncopal episode this evening. She admits to inducing vomiting after meals the past three weeks. She is 5' 5" and weighs 83 lbs/37.7 kg (BMI 13.8). Mandy is reluctantly brought in by her mother and does not want to be treated. As the primary nurse responsible for the care of Mandy, you overhear her say to her mother, "I hate everything about me! I am so tired of living, I wish I were dead!"

Personal/Social History:

Mandy was sexually abused by her stepfather from the age of six to twelve. She confided what was taking place to her mother and lives with her mother, who is now divorced. Mandy is sexually active and promiscuous. She uses the Tinder app to meet older men for anonymous sexual encounters when her mother is working.

What data from the histories are RELEVANT and has clinical significance to the nurse?

RELEVANT Data from Present Problem:	Clinical Significance:
<ul style="list-style-type: none"> -Struggled with anorexia nervosa since age 11, now is 16 (so for 5 years) -Drinks several large glasses of water daily -Recently engaging in self harming behavior, she is cutting both forearms and thighs with broken glass (numerous lacerations and scars -Presents to the ED with increasing weakness, lightheadedness and a near syncopal episode this evening - admits to inducing vomiting after meals the past three weeks -She is 5' 5" and weighs 83 lbs/37.7 kg (BMI 13.8) - brought in by her mother and does not want to be treated - overhear her say to her mother, "I hate everything about me! I am so tired of living, I wish I were dead!" 	<ul style="list-style-type: none"> -It is important to note that the patient has a history of anorexia nervosa because this could mean that she could possibly have more serious side effects because of the length of her ED -It is important to note that she drinks water because the patient is at risk for fluid and electrolyte problems. If she is drinking a lot of water she could experience fluid overload which makes her at risk for hyponatremia and seizures -The patient is cutting herself, which shows that she is at risk for self-harm and could be a high risk for suicide. -The fact that she has increasing weakness, lightheadedness and near syncopal episode shows that she may be experiencing electrolyte imbalances which can be deadly -The fact that her BMI is very low shows that she could be experiencing extreme electrolyte imbalances which could lead to organ failure and even death -The fact that she was brought in by her mother shows that she has a support system at home and it is important to note that she is resistant to treatment so may need to be hospitalized involuntarily -She is stating suicidal thoughts and therefore is a high risk for suicide, suicide ideation
RELEVANT Data from Social History:	Clinical Significance:
<ul style="list-style-type: none"> -was sexually abused by her stepfather from the age of six to twelve -confided what was taking place to her mother and lives with her mother, who is now divorced -is sexually active and promiscuous - uses the Tinder app to meet older men for anonymous sexual encounters when her mother is working 	<ul style="list-style-type: none"> -She experienced sexual abuse as a child, which is a major emotional trauma, and these types of trauma can cause the development of eating disorders, anxiety, and depression. She could be using the anorexia nervosa to cope -The patient has a support system at home, her mother. The nurse may need to include family education as well. -The patient may be using sexual activities as a coping mechanism for her past sexual abuse

What is the RELATIONSHIP of your patient's past medical history (PMH) and current meds?

(Which medication treats which condition? Draw lines to connect.)

PMH:	Home Meds:	Pharm. Classification:	Expected Outcome:
<u>Anorexia nervosa</u>	Citalopram 20 mg PO daily	This is an antidepressant and	The patient's depression and

<u>Depression</u> <u>Self-injurious behavior (SIB)</u> Sexually abused as a child		more specifically an SSRI	anxiety will reduce, this will hopefully help stop her self harming behavior and improve her ED
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What medications treat which conditions?

Draw a line to identify what illness is being managed by what medication?

Citalopram is helping treat her depression and anxiety, which is correlated to her ED

One disease process often influences the development of other illnesses. Based on your knowledge of pathophysiology, (if applicable), which disease likely developed FIRST that created a “domino effect” in his/her life?

- Circle what PMH problem likely started **FIRST**.
- Underline what PMH problem(s) **FOLLOWED** as domino(s).

Patient Care Begins:

Current VS:	P-Q-R-S-T Pain Assessment (5th VS):	
T: 96.2 F/35.7 C (oral)	Provoking/Palliative:	Denies
P: 50 (regular)	Quality:	
R: 16 (regular)	Region/Radiation:	
BP: 86/44 MAP: 58	Severity:	
O2 sat: 99% room air	Timing:	

Orthostatic BP's

Position:	HR:	BP:
Lying	50	86/44
Standing	78	72/40

What VS data is RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT VS Data:	Clinical Significance:
T: 96.2 P: 50 BP 86/44 MAP 58 Orthostatic BPs Lying HR 50 and BP 86/44 Standing HR 78 and BP 72/40	-She has a low body temperature which may mean she is not getting the amount of blood that she needs and therefore her body temperature is lowering -Her pulse is low which shows bradycardia. She is having difficulty pumping blood and circulating blood and the heart is not working at full capacity. -She has a low BP because she is not getting enough blood circulation and the low MAP shows that blood may not be getting to the bodies organs -Orthostatic hypotension is indicative of electrolyte imbalances and extreme complications related to anorexia. This could be why she is experiencing the lightheadedness and weakness

Current PHYSICAL Assessment:

RESP:	Breath sounds clear with equal aeration bilaterally, non-labored respiratory effort
CARDIAC:	Pale-pink, cool and dry, 2+ bilateral pitting edema of feet and ankles, heart sounds regular with no abnormal beats, pulses weak, equal with palpation at radial/pedal/post-tibial landmarks, cap refill <3 seconds
GI:	Abdomen scaphoid, several 1 cm open ulcers present on oral mucosa that are also dry and tacky, soft and tender to gentle palpation in epigastrium, bowel sounds hypoactive and audible per auscultation in all four quadrants
GU:	Voiding without difficulty, urine clear/dark amber, she has not had her menses the past 6 months
SKIN:	Numerous vertical old scars from SIB present on both forearms, has several recent vertical lacerations that are partial thickness on her left forearm, hair on head is thinning, skin is dry with lanugo body hair apparent on both arms.

What PHYSICAL assessment data is RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Assessment Data:	Clinical Significance:
-Skin is pale-pink, cool and dry -2+ bilateral pitting edema of feet and ankles - pulses weak - Abdomen scaphoid - several 1 cm open ulcers present on oral mucosa that are also dry and tacky	-The patient may be experiencing the dry and cool skin because of dehydration and her heart may not be pumping efficiently due to the malnutrition and the electrolyte imbalances. This is also why the patients pulses may be weak -The patient is experiencing pitting edema which could be due to electrolyte imbalances with sodium. She could be experiencing hyponatremia. Her pulses may also be weak because she has a low HR and she has been drinking increased fluid and therefore could have fluid retention which can also cause edema -The patient may have a scaphoid abdomen and ulcers in oral mucosa due to

<ul style="list-style-type: none">- soft and tender to gentle palpation in epigastrium- - bowel sounds hypoactive-urine clear/dark amber, she has not had her menses the past 6 months- Numerous vertical old scars from SIB present on both forearms. , has several recent vertical lacerations that are partial thickness on her left forearm-hair on head is thinning, skin is dry with lanugo body hair apparent on both arms.	<p>her vomiting and anorexia. She does not have anything in her stomach and therefore it may look sunken. She may have the ulcers because the acid from vomiting is causing ulcers in her mouth. Her bowel sounds are hypoactive because she has not been eating and her stomach is not digesting anything</p> <ul style="list-style-type: none">-The urine could be dark amber due to dehydration and her menstrual cycle is affected due to malnutrition-The fact that her hair is thinning means she could be lacking vitamins and she is experiencing malnutrition from the anorexia-The lacerations on her forearms show she is self harming and is a suicide risk
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Mental Status Examination:	
APPEARANCE:	Wearing oversized baggy shirt. Emaciated appearance with little subcutaneous body fat, breasts atrophied
MOTOR BEHAVIOR:	Generalized weakness
SPEECH:	Soft, quiet
MOOD/AFFECT:	Flat affect, appears depressed, does not maintain eye contact
THOUGHT PROCESS:	Is logical and goal directed
THOUGHT CONTENT:	No overt delusions, but does indicate possible distorted body image stating, "I am just a little overweight" despite emaciated appearance
SUICIDAL/HOMICIDAL:	Denies homicidal ideation. Suicidal ideation is present. Stated, "I am so tired of living, I wish I were dead!" Admits to cutting as a way to relieve frustration.
PERCEPTION:	Denies auditory/visual hallucinations
INSIGHT/JUDGMENT:	Poor insight as evidenced by ongoing physical decline related to anorexia nervosa. Poor judgment is indicated by her desire to exercise excessively and wanting to go for a long walk despite her current weakness
COGNITION:	Alert and oriented to person, place, time, and situation (x4). States that she has difficulty concentrating in school.
INTERACTIONAL ABILITY:	No apparent problem

What MSE assessment data is *RELEVANT* that must be recognized as clinically significant to the nurse?

RELEVANT Assessment Data:	Clinical Significance:
<ul style="list-style-type: none"> - Wearing oversized baggy shirt. Emaciated appearance with little subcutaneous body fat, breasts atrophied - Generalized weakness - Speech is soft, quiet Indicate possible distorted body image stating, "I am just a little overweight" despite emaciated appearance - Suicidal ideation is present. Stated, "I am so tired of living, I wish I were dead!" Admits to cutting as a way to relieve frustration -Poor insight as evidenced by ongoing physical decline related to anorexia nervosa. Poor judgment is indicated by her desire to exercise excessively and wanting to go for a long walk despite her current weakness -States that she has difficulty concentrating in school. 	<ul style="list-style-type: none"> -The fact that she is wearing an oversized baggy shirt is a symptom of anorexia because she thinks she is bigger than she is and has to cover up with a baggy shirt -Her weakness and soft and quiet speech could be due to her depression -She has body image issues which is seen with people who are anorexic -She is suicidal which means that she needs psychiatric help and put on suicidal precautions -Difficulty concentration in school is a side effect of ED and depression

Cardiac Telemetry Strip: