Certified Medical-Surgical Registered Nurse (CMSRN) Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What is the primary treatment for dilutional hyponatremia?

A. Fluid replacement

B. Fluid restriction

C. Sodium replacement

D. Diuretics administration

2. What nursing assessment finding may indicate chronic bronchitis?

A. Barrel chest

B. Thick mucoid sputum

C. Increased lung volumes

D. Reduced cough reflex

3. In which stage of hypovolemic shock is there evidence of decreased cardiac output and changes in blood pressure?

A. Compensated shock

B. Uncompensated shock

C. Irreversible shock

D. Chronic shock

4. Which patients should be monitored closely for signs of Diabetes Insipidus (DI)?

A. Patients with renal failure

B. Post-operative craniotomy patients

C. Patients undergoing chemotherapy

D. Patients with uncontrolled diabetes mellitus

5. What type of diet is typically recommended for patients with liver failure?

A. High protein, high fat

B. High calorie, low protein

C. Low calorie, high sodium

D. Moderate calorie, low carbohydrate

6. What are the early signs of increased intracranial pressure (ICP)?

A. Severe headache and pupil changes

B. Change in level of consciousness, headache, confusion

C. Loss of motor function, hemiparesis

D. Nausea and vomiting

7. Which symptom is NOT typically associated with small bowel obstruction?

A. High-pitched bowel sounds

B. Emesis

C. Absence of stool

D. Rectal bleeding

8. Which of the following is a characteristic of Kussmaul respirations?

A. Slow and shallow

B. Rapid and shallow

C. Rapid and deep

D. Normal rhythmic

9. Which medication class is often used to treat hypercalcemia?

A. Loop diuretics

B. Thiazide diuretics

C. ACE inhibitors

D. Beta-blockers

10. What is a negative inotropic effect associated with calcium channel blockers?

A. Decreases myocardial oxygen supply

B. Decreases force of contraction

C. Increases heart rate

D. Increases stroke volume

Answers

1. B
2. B
3. B
4. B
5. B
6. B
7. D
8. C
9. A
10. B

Explanations

1. What is the primary treatment for dilutional hyponatremia?

A. Fluid replacement

B. Fluid restriction

C. Sodium replacement

D. Diuretics administration

In cases of dilutional hyponatremia, the primary treatment focuses on fluid restriction. This condition occurs when there is an excess of total body water relative to sodium, leading to a decrease in serum sodium concentration. By restricting fluid intake, the balance between sodium and water can be improved, which helps to raise the serum sodium concentration back towards normal levels. Fluid restriction is essential because, in dilutional hyponatremia, the body already has excess fluid. Simply replacing sodium or administering diuretics could exacerbate the dilution effect or cause rapid shifts in fluid that can be dangerous. Sodium replacement through dietary changes or intravenous administration could also lead to complications such as osmotic demyelination syndrome if done too rapidly. Therefore, implementing fluid restriction is the most effective and safest primary strategy to restore sodium levels gradually and correct the dilutional process without introducing additional risks.

2. What nursing assessment finding may indicate chronic bronchitis?

A. Barrel chest

B. Thick mucoid sputum

C. Increased lung volumes

D. Reduced cough reflex

The presence of thick mucoid sputum is a hallmark finding in chronic bronchitis. This condition is characterized by inflammation of the bronchial tubes, which leads to excess mucus production. As a result, patients with chronic bronchitis often experience a chronic productive cough that typically produces thick, often discolored, sputum. In contrast, while barrel chest and increased lung volumes may be associated with other respiratory conditions such as emphysema, they are not specific indicators of chronic bronchitis. A barrel chest results from long-standing air trapping, and while patients with chronic bronchitis can have changes in lung volumes, it's more characteristic of other forms of chronic obstructive pulmonary disease (COPD). The reduced cough reflex does not typically correspond with chronic bronchitis, as patients often have an increased urge to cough due to mucus buildup. Overall, the finding of thick mucoid sputum directly correlates with the pathophysiology of chronic bronchitis, making it the most indicative assessment finding for this condition.

3. In which stage of hypovolemic shock is there evidence of decreased cardiac output and changes in blood pressure?

A. Compensated shock

B. Uncompensated shock

C. Irreversible shock

D. Chronic shock

In hypovolemic shock, there are distinct stages that reflect the body's response to significant fluid loss. In the stage referred to as uncompensated shock, the body's compensatory mechanisms are overwhelmed; therefore, a noticeable decline in cardiac output and alterations in blood pressure occur. During this phase, the heart may be unable to maintain adequate circulation and perfusion of vital organs due to the reduced volume of blood. As a result, blood pressure drops significantly, and the heart's inability to pump effectively leads to decreased cardiac output. Patients may exhibit signs of this state such as confusion, restlessness, or lethargy, along with vital signs indicating marked hypotension. In contrast, in compensated shock, the body still manages to maintain cardiac output through the release of catecholamines, which can sustain blood pressure in the early stages of blood volume loss. Irreversible shock indicates a more severe, prolonged state where cellular and organ damage has occurred and is unlikely to recover even with restoration of fluid volume. Chronic shock is not typically a recognized stage of hypovolemic shock and refers to ongoing, persistent issues that don't fit into the acute crisis of shock. Thus, identifying the uncompensated shock is critical as it marks the progression

4. Which patients should be monitored closely for signs of Diabetes Insipidus (DI)?

A. Patients with renal failure

B. Post-operative craniotomy patients

C. Patients undergoing chemotherapy

D. Patients with uncontrolled diabetes mellitus

Patients who have undergone a craniotomy should be monitored closely for signs of Diabetes Insipidus (DI) because the condition can occur due to disruptions in the pituitary gland that manage the secretion of antidiuretic hormone (ADH). During a craniotomy, the risk of trauma to the hypothalamus or pituitary gland is increased, which can lead to a deficiency in ADH production or secretion, resulting in DI. The clinical presentation of DI includes excessive urination and increased thirst, which can be critical to identify early after surgery. Close monitoring of the patient's fluid balance, urinary output, and symptoms of dehydration is essential to manage and mitigate potential complications that may arise from DI following such a procedure. Other patient populations, while they may possess risk factors for various types of diabetes or fluid imbalances, do not necessarily have the same direct association with the development of DI related to structural changes in the central nervous system as seen with craniotomy patients.

5. What type of diet is typically recommended for patients with liver failure?

A. High protein, high fat

B. High calorie, low protein

C. Low calorie, high sodium

D. Moderate calorie, low carbohydrate

The recommended diet for patients with liver failure typically emphasizes high calorie intake while maintaining low protein levels. This is primarily due to the liver's impaired ability to process proteins, which can lead to complications such as hepatic encephalopathy. A high-calorie diet ensures that the patient gets enough energy to meet their metabolic needs, particularly since they may have increased energy expenditure due to their illness. Given the weakened liver function, a focus on limiting protein is necessary to reduce the buildup of ammonia and other nitrogenous waste products that occur from protein metabolism. This helps minimize the risk of complications associated with liver failure, such as confusion or coma, which can be aggravated by elevated ammonia levels. The other dietary options, while they may seem plausible, would not provide the necessary support for a patient with liver failure. A high protein, high fat diet could exacerbate liver issues and lead to further complications. Low calorie diets would not meet a patient's energy requirements, especially when they may be experiencing weight loss and muscle wasting. Lastly, a high sodium diet is contraindicated, particularly for patients who might also be managing fluid retention or ascites, which is common in liver disease.

6. What are the early signs of increased intracranial pressure (ICP)?

A. Severe headache and pupil changes

B. Change in level of consciousness, headache, confusion

C. Loss of motor function, hemiparesis

D. Nausea and vomiting

Increased intracranial pressure (ICP) can have several early signs that are critical for assessment and timely intervention. Among these, a change in level of consciousness is particularly notable as it indicates that the pressure in the skull is affecting brain function. This can manifest as confusion, which reflects disturbances in cognitive processes that can occur due to decreased perfusion or increased pressure on the brain tissues. Additionally, headaches are a common symptom experienced by individuals with increased ICP because the pressure can irritate pain-sensitive structures within the skull. The presence of confusion alongside these symptoms becomes a compelling indicator of altered neurological status, prompting further evaluation. The other symptoms, although significant in the context of increased ICP, may manifest at different stages or in response to more advanced stages of the condition. For instance, severe headache and pupil changes are also critical signs but may not be as early as changes in consciousness and confusion. Loss of motor function and hemiparesis are likely to present later, indicating more severe or progressed impairment. Nausea and vomiting can occur as a result of increased ICP but often signify further complications or advanced pressure. Thus, option B highlights key early indicators that necessitate immediate assessment and intervention.

7. Which symptom is NOT typically associated with small bowel obstruction?

A. High-pitched bowel sounds

B. Emesis

C. Absence of stool

D. Rectal bleeding

Rectal bleeding is not typically associated with small bowel obstruction. Small bowel obstructions often result in symptoms related to the accumulation of intestinal contents, such as high-pitched bowel sounds, vomiting (emesis), and an absence of stool passage, as the obstructed segment prevents normal bowel function. High-pitched bowel sounds occur due to increased intestinal peristalsis in an attempt to overcome the obstruction. Emesis is common because the contents cannot progress past the blockage, leading to regurgitation. The absence of stool occurs as the bowel is unable to propel waste past the obstruction, resulting in no bowel movements. In contrast, rectal bleeding is more commonly associated with conditions like hemorrhoids, gastrointestinal bleeding, or inflammatory bowel disease rather than a mechanical obstruction in the small intestine. Therefore, recognizing the symptom profile of small bowel obstruction helps in differentiating it from other gastrointestinal issues.

8. Which of the following is a characteristic of Kussmaul respirations?

A. Slow and shallow

B. Rapid and shallow

C. Rapid and deep

D. Normal rhythmic

Kussmaul respirations are characterized by rapid, deep breaths that are typically observed in patients with metabolic acidosis, especially in conditions like diabetic ketoacidosis. The body's response to acidosis involves hyperventilation to help decrease the level of carbon dioxide in the blood, thereby attempting to correct the pH balance. This pattern of breathing helps expel more carbon dioxide and increase oxygen intake. It is distinct from other types of respiratory patterns such as those that are normal and rhythmic, slow and shallow, or rapid and shallow, as those do not involve the deep intake of breath that characterizes Kussmaul respirations. Understanding these respirations is crucial for assessing patients in metabolic distress, allowing timely intervention and management of underlying conditions.

9. Which medication class is often used to treat hypercalcemia?

A. Loop diuretics

B. Thiazide diuretics

C. ACE inhibitors

D. Beta-blockers

Loop diuretics are commonly employed to manage hypercalcemia due to their ability to enhance renal excretion of calcium. These medications work primarily by inhibiting sodium and chloride reabsorption in the ascending loop of Henle in the kidney, leading to increased urine output and cessation of calcium reabsorption. Consequently, this results in lower serum calcium levels, which is particularly beneficial in conditions characterized by elevated calcium levels, such as certain malignancies or hyperparathyroidism. While thiazide diuretics also affect calcium levels, they can actually promote calcium reabsorption, which does not make them suitable for treating hypercalcemia. ACE inhibitors and beta-blockers have different mechanisms of action that do not directly relate to calcium regulation and are thus not effective for treating hypercalcemia.

10. What is a negative inotropic effect associated with calcium channel blockers?

A. Decreases myocardial oxygen supply

B. Decreases force of contraction

C. Increases heart rate

D. Increases stroke volume

The negative inotropic effect associated with calcium channel blockers is a decrease in the force of contraction of the heart muscle. Calcium plays a critical role in the process of cardiac muscle contraction; when calcium channel blockers are administered, they inhibit the influx of calcium ions into the myocardial cells. This results in reduced contractility, which is clinically significant, especially in conditions like hypertension and certain types of heart failure. By decreasing the force of contraction, these medications allow the heart to work more efficiently while reducing myocardial oxygen demand. This effect helps in managing symptoms related to angina and can be beneficial in heart failure where decreasing the workload on the heart is often desired. Understanding this mechanism is crucial for applying medical interventions appropriately in patient care.