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

Study Guide

Everything you need from our exam experts!

Questions

1. What is the stage of hepatitis that manifests with malaise, fever, anorexia, and no jaundice?

A. Prodromal

B. Iceteric

C. Recovery

D. Post-icteric

2. Which type of bowel obstruction is more likely to require surgical intervention?

A. Small bowel obstruction

B. Large bowel obstruction

C. Functional bowel obstruction

D. Acute bowel obstruction

3. Which treatment is considered first-line for DKA?

A. Oral hypoglycemics

B. IV insulin

C. Subcutaneous insulin

D. Glucagon

4. Which insulin causes a peak effect at 6-12 hours?

A. Novolog

B. Long-acting

C. Intermediate (NPH)

D. Regular

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. Which type of heart failure is indicated by signs such as JVD, dependent edema, hepatomegaly, and abdominal distention?

A. Right ventricular heart failure

B. Left ventricular heart failure

C. Systolic heart failure

D. Cardiac dysrhythmia

7. Which foods are particularly high in potassium?

A. Cheese, rice, and bread

B. Avocado, dried fruits, and potato skins

C. Beef, fish, and poultry

D. Grains, nuts, and legumes

8. Which of the following is not a symptom of chronic liver failure?

A. Encephalopathy

B. Portal hypertension

C. Ascites

D. Chest pain

9. What is the distinguishing feature of a deep tissue injury (DTI)?

A. Non-blanchable redness over bony prominence

B. Partial thickness loss of dermis

C. Purple or maroon discolored skin due to pressure/shear

D. Full thickness tissue loss

10. Which type of AKI is characterized by obstruction to the forward flow of urine?

A. Prerenal

B. Infrarenal

C. Postrenal

D. Preemptive

Answers

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

Explanations

1. What is the stage of hepatitis that manifests with malaise, fever, anorexia, and no jaundice?

A. Prodromal

B. Iceteric

C. Recovery

D. Post-icteric

The prodromal stage of hepatitis is characterized by nonspecific symptoms such as malaise, fever, and anorexia without the presence of jaundice. This stage occurs prior to the onset of jaundice and is often challenging to recognize because the symptoms can resemble other viral illnesses. During this phase, the liver is already being affected, and the patient may experience fatigue along with these constitutional symptoms. Recognizing the prodromal stage is important because it reflects the initial immune response to the virus and can precede the more recognizable symptoms that follow, such as jaundice, in the icteric stage. Understanding the stages of hepatitis aids in early diagnosis and management, making it crucial for healthcare providers to identify these early symptoms as indicative of potential liver involvement before it progresses to more severe manifestations.

2. Which type of bowel obstruction is more likely to require surgical intervention?

A. Small bowel obstruction

B. Large bowel obstruction

C. Functional bowel obstruction

D. Acute bowel obstruction

The correct answer is large bowel obstruction, which is often more likely to require surgical intervention due to the potential for serious complications. Large bowel obstructions can occur from a variety of causes, including malignancies, strictures, or volvulus, and they can lead to significant risks such as bowel perforation, ischemia, or necrosis if not treated promptly. Surgical intervention is typically necessary to remove the obstruction, especially if the obstruction is complete and leading to significant symptoms like abdominal distention, severe pain, and vomiting. In contrast, while small bowel obstructions may sometimes require surgery depending on their cause and duration, many can be managed conservatively with decompression and rehydration. Functional bowel obstruction refers to issues with bowel motility rather than a physical blockage, hence surgical intervention is rarely needed. Acute bowel obstruction is a term that can apply to either type but does not specify the anatomical location, making it less definitive regarding the need for surgery. Overall, large bowel obstructions are more frequently of a nature that demands surgical evaluation and intervention due to their higher risk of complications and the more serious implications of their causes.

3. Which treatment is considered first-line for DKA?

A. Oral hypoglycemics

B. IV insulin

C. Subcutaneous insulin

D. Glucagon

In the management of diabetic ketoacidosis (DKA), intravenous (IV) insulin is recognized as the first-line treatment. This approach is crucial due to the rapid action of insulin when administered intravenously, which facilitates the necessary immediate correction of hyperglycemia and helps suppress ketogenesis. DKA is characterized by significant insulin deficiency, leading to increased blood glucose levels and the production of ketones, so restoring insulin levels promptly is vital to reversing the metabolic derangement. Using IV insulin allows for precise titration of the dose according to the patient's blood glucose levels, ensuring more controlled management of the condition. It is typically administered until the acidosis is resolved and glucose levels are normalized, after which other forms of insulin may be considered for ongoing management. In contrast, oral hypoglycemics are not considered effective in acute management due to their slower onset of action, subcutaneous insulin may not provide the rapid intervention needed in a critical care setting, and glucagon is primarily used for treating severe hypoglycemia rather than hyperglycemia or DKA. Therefore, the use of IV insulin is a cornerstone in the acute management of DKA.

4. Which insulin causes a peak effect at 6-12 hours?

A. Novolog

B. Long-acting

C. Intermediate (NPH)

D. Regular

The option indicating that intermediate-acting insulin, such as NPH (Neutral Protamine Hagedorn), causes a peak effect at 6-12 hours is accurate. NPH is characterized by its unique formulation, which includes the addition of protamine, allowing it to be absorbed more slowly than regular insulin. This results in a duration of action that spans several hours, and a peak effect typically occurs during the 6 to 12-hour timeframe after administration. Understanding this peak time is crucial for managing blood glucose levels, especially in patients requiring scheduled meals or snacks. The peak effect indicates when the underlying insulin would be most effective in lowering blood glucose, guiding both the timing of meals and the administration of insulin. In contrast, other types of insulin have different profiles. For example, rapid-acting insulins, like Novolog, typically peak around 1-3 hours, while regular insulin peaks at around 2-4 hours. Long-acting insulins are formulated to have a steady release over an extended period without a distinct peak. Recognizing these differences in insulin types is essential for effective diabetes management.

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. Which type of heart failure is indicated by signs such as JVD, dependent edema, hepatomegaly, and abdominal distention?

A. Right ventricular heart failure

B. Left ventricular heart failure

C. Systolic heart failure

D. Cardiac dysrhythmia

The signs indicated in the question—jugular venous distention (JVD), dependent edema, hepatomegaly, and abdominal distention—are characteristic of right ventricular heart failure. Right ventricular heart failure often leads to a backup of blood into the venous system due to the inability of the right ventricle to effectively pump blood to the lungs for oxygenation. As blood volume increases in the systemic circulation, it can cause various manifestations. JVD occurs due to increased pressure in the right atrium, which causes distension of the jugular veins. Dependent edema results from fluid accumulation in the lower extremities and can be exacerbated by prolonged sitting or standing. Hepatomegaly, or liver enlargement, occurs as blood backs up into the liver, potentially causing congestion and dysfunction. Abdominal distention can arise from fluid accumulation in the abdominal cavity, known as ascites, which is often associated with hepatic congestion and venous pressure. The other options do not align with the specific signs and symptoms outlined in the question. Left ventricular heart failure often features symptoms related to pulmonary congestion, such as shortness of breath and cough due to fluid backing up into the lungs. Systolic heart failure refers to the reduced ability of

7. Which foods are particularly high in potassium?

A. Cheese, rice, and bread

B. Avocado, dried fruits, and potato skins

C. Beef, fish, and poultry

D. Grains, nuts, and legumes

Foods that are particularly high in potassium include avocados, dried fruits, and potato skins. Avocados are not only rich in healthy fats but also provide a substantial amount of potassium, which is crucial for various bodily functions including muscle contraction and nerve transmission. Dried fruits such as apricots, figs, and raisins concentrate the potassium content by removing the water, making them excellent sources for this important mineral. Potato skins, which often contain higher levels of potassium compared to the flesh of the potato, are another great choice, as they retain many of the nutrients that are sometimes discarded when the skin is removed. In contrast, options like cheese, rice, and bread generally have lower potassium levels, while beef, fish, and poultry do contain potassium but not in the same abundance as plant-based sources. Finally, grains, nuts, and legumes are nutritious but tend to be higher in other nutrients such as fiber and protein rather than potassium specifically, making them less optimal choices compared to the foods in the correct answer.

8. Which of the following is not a symptom of chronic liver failure?

A. Encephalopathy

B. Portal hypertension

C. Ascites

D. Chest pain

Chest pain is not a symptom typically associated with chronic liver failure. Chronic liver failure presents with a variety of symptoms primarily related to the liver's declining function and the resultant systemic effects. Encephalopathy can occur due to the accumulation of toxins in the bloodstream, which the liver can no longer adequately process. Portal hypertension is a common complication of liver disease, characterized by increased blood pressure in the portal vein system, which can lead to various issues such as splenomegaly and esophageal varices. Ascites, the accumulation of fluid in the abdominal cavity, is also a frequent manifestation of liver failure, stemming from increased pressure in the portal system and alterations in serum protein levels. In contrast, chest pain is generally not indicative of liver dysfunction and may arise from numerous other conditions such as cardiac issues, pulmonary problems, or gastrointestinal disorders. Thus, while the other symptoms directly relate to liver failure, chest pain stands apart as unrelated to this specific condition.

9. What is the distinguishing feature of a deep tissue injury (DTI)?

A. Non-blanchable redness over bony prominence

B. Partial thickness loss of dermis

C. Purple or maroon discolored skin due to pressure/shear

D. Full thickness tissue loss

The distinguishing feature of a deep tissue injury (DTI) is the presence of purple or maroon discolored skin resulting from pressure or shear forces. This type of injury occurs when there is damage to the underlying soft tissue, and the skin may appear intact but is actually affected beneath the surface. The discoloration is a key indicator, as it suggests that there is a significant amount of tissue damage occurring below the epidermis, potentially even leading to necrosis if pressure is not relieved. Recognizing this specific appearance is crucial for early intervention and management, which can help prevent further progression of the injury.

10. Which type of AKI is characterized by obstruction to the forward flow of urine?

A. Prerenal

B. Infrarenal

C. Postrenal

D. Preemptive

Postrenal acute kidney injury (AKI) is characterized by an obstruction to the forward flow of urine, which occurs after the urine has been produced in the kidneys. This obstruction can occur at various points in the urinary tract, including the ureters, bladder, or urethra. When urine cannot flow freely out of the kidneys due to this obstruction, it leads to increased pressure within the renal pelvis and can ultimately result in damage to the nephrons if the obstruction is not relieved. In contrast, prerenal AKI is primarily due to inadequate blood flow to the kidneys, resulting from conditions like dehydration or heart failure, while infrarenal AKI is related to direct damage to the kidney tissue itself, such as from toxins or ischemia. The term preemptive does not correspond to a recognized category of acute kidney injury. Understanding the distinct mechanisms and causes of AKI is crucial for proper diagnosis and management in clinical practice.