ANCC Adult–Gerontology Acute Care Nurse Practitioner Certification (AGACNP) Practice Test (Sample)

Study Guide

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Questions

1. In the DESC model of conflict resolution, what does the "E" stand for?

A. Explore

B. Examine

C. Express

D. Engage

2. What is the primary cause of diabetes insipidus?

A. Excessive production of insulin

B. Inadequate amounts of ADH

C. High calcium levels

D. Renal failure

3. At what age should adults receive the PNA vaccine if they are smokers or have asthma?

A. Age 19-24

B. Age 40-50

C. Age 19-64

D. Age 65-70

4. When starting clopidogrel therapy, which complication should be monitored for?

A. Hemorrhagic stroke

B. Thrombotic thrombocytopenic purpura (TTP)

C. Acute kidney injury

D. Liver failure

5. What is the prognosis for acute myeloid leukemia (AML) with treatment?

A. Complete remission in 30-40%

B. Complete remission in 60-70%

C. Complete remission in 80-90%

D. Complete remission in 40-50%

6. Which conditions are commonly associated with high mean corpuscular volume (MCV)?

- **A. Anemia of chronic disease**
- **B. B12 or folate deficiency**
- **C. Iron overload**
- **D. Hemorrhagic shock**

7. What is a common treatment approach for leukemia?

- **A. Surgery**
- **B. Radiation therapy**
- **C. Bone marrow transplant**
- **D. Targeted gene therapy**

8. What does HBsAg indicate in a patient?

- **A. Recovery from hepatitis B infection**
- **B. Active Hepatitis B infection and infectious status**
- **C. Immunity to hepatitis B infection**
- **D. Chronic hepatitis B without infection**

9. Which antibiotic is commonly used to treat trichomonas?

- **A. Azithromycin**
- **B. Metronidazole**
- **C. Clindamycin**
- **D. Ceftriaxone**

10. Which condition is NOT a differential diagnosis for normal MCV?

- **A. Anemia of chronic disease**
- **B. Sickle cell**
- **C. Renal failure**
- **D. Vitamin B12 deficiency**

Answers

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

Explanations

1. In the DESC model of conflict resolution, what does the "E" stand for?

A. Explore

B. Examine

C. Express

D. Engage

In the DESC model of conflict resolution, the "E" stands for "Express." The DESC model is a structured approach that enables individuals to communicate their feelings and needs effectively during conflict situations. The "E" emphasizes the importance of clearly articulating one's feelings or concerns about the issue at hand. By expressing feelings, individuals can foster understanding and empathy, reducing the likelihood of escalation in conflict. This step is crucial because it shifts the conversation from potentially accusatory language to a more vulnerable and personal expression, which can lead to better outcomes in resolving disputes. Properly expressing oneself helps to clarify intentions and can invite a more constructive dialogue focused on resolution.

2. What is the primary cause of diabetes insipidus?

A. Excessive production of insulin

B. Inadequate amounts of ADH

C. High calcium levels

D. Renal failure

The primary cause of diabetes insipidus is inadequate amounts of antidiuretic hormone (ADH), also known as vasopressin. This hormone is crucial for regulating the body's water balance by promoting the reabsorption of water in the kidneys. When there is a deficiency of ADH, either due to damage to the hypothalamus or pituitary gland, or due to certain congenital conditions, the kidneys are unable to effectively concentrate urine. As a result, this leads to significant diuresis, characterized by the excretion of large volumes of dilute urine, and subsequently causes increased thirst (polydipsia) as the body attempts to compensate for the fluid loss. The other options do not directly cause diabetes insipidus. Excessive production of insulin pertains to conditions like diabetes mellitus rather than the regulation of water balance. High calcium levels can lead to a variety of health issues but are not a direct cause of diabetes insipidus. Lastly, while renal failure can affect fluid balance, it does not directly account for the deficiency of ADH that underlies diabetes insipidus.

3. At what age should adults receive the PNA vaccine if they are smokers or have asthma?

A. Age 19-24

B. Age 40-50

C. Age 19-64

D. Age 65-70

Adults who are smokers or have asthma are at an increased risk for pneumonia, making vaccination against pneumococcal disease crucial for these populations. The recommendation for pneumococcal vaccination is to start administering it at age 19 and continue to do so until age 64, particularly if individuals have certain risk factors such as chronic respiratory conditions like asthma or engage in behaviors like smoking. The guidelines emphasize the importance of protecting this demographic, given that they have a higher likelihood of complications from pneumonia. Therefore, starting the vaccination at age 19 and continuing up to age 64 aligns with established health recommendations designed to reduce morbidity and mortality from pneumococcal infections in high-risk adult populations. Choosing to vaccinate at this age range helps ensure that individuals have adequate protection during their most vulnerable years before reaching the age where general recommendations shift for pneumococcal vaccinations, typically starting again around age 65.

4. When starting clopidogrel therapy, which complication should be monitored for?

A. Hemorrhagic stroke

B. Thrombotic thrombocytopenic purpura (TTP)

C. Acute kidney injury

D. Liver failure

Clopidogrel therapy is associated with the risk of thrombotic thrombocytopenic purpura (TTP), a rare but serious complication characterized by a pentad of symptoms: microangiopathic hemolytic anemia, thrombocytopenic purpura, neurological symptoms, renal dysfunction, and fever. This condition occurs due to the inhibition of von Willebrand factor-cleaving protease, leading to the accumulation of large von Willebrand factor multimers and subsequent microthrombi formation that can cause damage to various organs. Monitoring for TTP is critical when initiating clopidogrel, especially in individuals who may be at an increased risk, as early recognition and treatment are essential to improve outcomes. While other complications may be associated with various conditions or medications, TTP is notably linked to the use of clopidogrel, making it the key concern when starting this therapy. Other conditions like hemorrhagic stroke, acute kidney injury, or liver failure may arise in different contexts or due to other medications, but they are not specifically linked to clopidogrel in the same direct way as TTP. Therefore, focusing on TTP allows healthcare providers to effectively monitor and intervene in a timely manner should symptoms arise during clopidog

5. What is the prognosis for acute myeloid leukemia (AML) with treatment?

A. Complete remission in 30-40%

B. Complete remission in 60-70%

C. Complete remission in 80-90%

D. Complete remission in 40-50%

The prognosis for acute myeloid leukemia (AML) with treatment typically indicates that complete remission can be achieved in approximately 60-70% of cases. This statistic reflects the effectiveness of the standard treatment modalities, which usually include aggressive chemotherapy regimens and, in some cases, stem cell transplantation, tailored to the individual patient's disease characteristics and overall health status. The success rates can vary depending on several factors such as the patient's age, the specific subtype of AML, cytogenetic abnormalities, and response to initial treatment. Therefore, the 60-70% range is often cited in clinical studies as a realistic outcome for the majority of patients receiving appropriate therapy. Achieving complete remission is a crucial goal in the management of AML, as it often precedes further treatment strategies aimed at maintaining remission and preventing relapse. While remission rates may vary across different demographics and clinical presentations, this particular range is representative of the current understanding within the hematology-oncology community regarding the effectiveness of treatment for AML.

6. Which conditions are commonly associated with high mean corpuscular volume (MCV)?

A. Anemia of chronic disease

B. B12 or folate deficiency

C. Iron overload

D. Hemorrhagic shock

High mean corpuscular volume (MCV) indicates that red blood cells are larger than normal, a condition known as macrocytosis. This phenomenon is frequently observed in cases of B12 or folate deficiency, as these vitamins play crucial roles in red blood cell production and maturation. When there is a deficiency of vitamin B12 or folate, there are disruptions in DNA synthesis that lead to abnormal red cell development, resulting in enlarged erythrocytes. In contrast, conditions such as anemia of chronic disease, iron overload, and hemorrhagic shock typically do not present with an increase in MCV. Anemia of chronic disease often leads to microcytic anemia or normocytic anemia, depending on the underlying condition, but not macrocytosis. Iron overload primarily affects iron metabolism and typically does not increase the size of red blood cells, while hemorrhagic shock is characterized by decreased overall red cell mass due to blood loss, typically resulting in a decreased MCV rather than an elevated one. Therefore, the association of macrocytosis with B12 or folate deficiency makes this condition the correct answer regarding high MCV.

7. What is a common treatment approach for leukemia?

A. Surgery

B. Radiation therapy

C. Bone marrow transplant

D. Targeted gene therapy

A common treatment approach for leukemia is a bone marrow transplant. This procedure is often used to treat certain types of leukemia when other treatments, such as chemotherapy or radiation, may not be effective or when there is a high risk of relapse. The goal of a bone marrow transplant is to replace unhealthy or damaged bone marrow with healthy stem cells, which can help restore the body's ability to produce healthy blood cells. In the context of leukemia, particularly in cases where the disease has progressed or is high-risk, a bone marrow transplant can provide the patient with a new immune system, significantly enhancing their chances of recovery and controlling the disease. This treatment is especially beneficial for patients with acute leukemias, chronic leukemias, or those who have relapsed after initial therapy. Treatment alternatives like surgery, radiation therapy, and targeted gene therapy might be considered in specific scenarios, but a bone marrow transplant stands out as a critical intervention for leukemia management due to its potential to achieve long-term remission and support new blood cell production.

8. What does HBsAg indicate in a patient?

A. Recovery from hepatitis B infection

B. Active Hepatitis B infection and infectious status

C. Immunity to hepatitis B infection

D. Chronic hepatitis B without infection

HBsAg, or Hepatitis B surface antigen, serves as a crucial marker for identifying an active Hepatitis B infection. When HBsAg is present in a patient's serum, it confirms that the patient is currently infected with the Hepatitis B virus. Additionally, the presence of this antigen signifies that the individual is potentially infectious, meaning that they can transmit the virus to others. In clinical practice, testing for HBsAg is a standard approach for diagnosing Hepatitis B. A positive result indicates an ongoing infection, allowing healthcare providers to implement necessary treatment and preventive measures. This is in contrast to other indicators like antibodies (such as anti-HBs), which signify recovery or immunity, or HBeAg, which reflects viral replication. Thus, the significance of HBsAg as an active infection marker makes it an essential component in managing and understanding Hepatitis B disease dynamics.

9. Which antibiotic is commonly used to treat trichomonas?

A. Azithromycin

B. Metronidazole

C. Clindamycin

D. Ceftriaxone

Metronidazole is recognized as the first-line treatment for Trichomonas vaginalis, the protozoan responsible for trichomoniasis. This medication is effective because it specifically targets anaerobic organisms and protozoa, making it highly suitable for treating infections caused by Trichomonas. Metronidazole works by disrupting the DNA synthesis of the organism, effectively eliminating it from the body. In clinical practice, metronidazole can be administered orally or topically, and it is generally well-tolerated. It's important to note that while azithromycin, clindamycin, and ceftriaxone are antibiotics that serve specific purposes, they are not effective against Trichomonas. Azithromycin is primarily used for chlamydia and gonorrhea, clindamycin is used mainly for bacterial infections, and ceftriaxone is commonly used for various gram-negative and severe bacterial infections. Therefore, metronidazole is the appropriate choice for treating trichomoniasis.

10. Which condition is NOT a differential diagnosis for normal MCV?

A. Anemia of chronic disease

B. Sickle cell

C. Renal failure

D. Vitamin B12 deficiency

Normal mean corpuscular volume (MCV) indicates that the average size of red blood cells is within the normal range. In this context, vitamin B12 deficiency typically leads to a macrocytic anemia, which is characterized by an increased MCV due to the production of larger-than-normal red blood cells. This condition arises because vitamin B12 is essential for proper red blood cell formation in the bone marrow. On the other hand, anemia of chronic disease is often associated with a normal or low MCV due to the underlying inflammatory state affecting red blood cell production. Sickle cell disease, while it can result in a range of MCV values, commonly presents with normal MCV in patients without any other concurrent anemias. Renal failure can also lead to anemia with a normal MCV, primarily as a result of decreased erythropoietin production affecting red blood cell production in a manner that doesn't alter the red blood cell size significantly. Therefore, among the conditions listed, the presence of normal MCV in vitamin B12 deficiency stands out as an inconsistency, confirming it as the condition that does not fit within the differential diagnoses for normal MCV.