

Cardiac-Vascular Nursing (CVRN) Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

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SAMPLE

Questions

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- 1. What is an important determinant of the effectiveness of patient education regarding medications and hypertension?**
 - A. Stress and his hospitalization**
 - B. Readiness to learn**
 - C. Anxious to go home**
 - D. Self-esteem**
- 2. Which is a potential complication of heart valve replacement surgery?**
 - A. Heart failure**
 - B. Valve thrombosis**
 - C. Arrhythmia**
 - D. Stroke**
- 3. Which of the following is a contraindication to physical activity for a patient with a history of cardiac disease?**
 - A. Diabetes**
 - B. Depression**
 - C. Unstable angina**
 - D. Chronic obstructive pulmonary disease**
- 4. What is a common teaching focus for patients with a risk of venous thromboembolism?**
 - A. Importance of maintaining hydration**
 - B. Need for bed rest during recovery**
 - C. Use of antibiotics to prevent infection**
 - D. Avoiding all physical activity**
- 5. What is the significance of measuring blood pressure in cardiovascular nursing?**
 - A. It indicates renal function**
 - B. It assesses peripheral circulation**
 - C. It provides information about cardiac workload and vascular health**
 - D. It is not relevant to cardiac assessment**

- 6. What condition is indicated by a stat EKG revealing ST-segment elevation?**
- A. Stable angina**
 - B. Anemia**
 - C. Anterior ST elevation MI**
 - D. Heart failure**
- 7. What signs might indicate a patient is experiencing postural hypotension after medication administration?**
- A. Increased blood pressure upon standing**
 - B. Dizziness or lightheadedness when rising**
 - C. Increased heart rate during rest**
 - D. Decreased respiratory rate during activity**
- 8. What is characterized by inflammation of the pericardial sac surrounding the heart?**
- A. Myocarditis**
 - B. Pericarditis**
 - C. Endocarditis**
 - D. Cardiomyopathy**
- 9. What characterizes right-sided heart failure?**
- A. Elevated pulmonary artery pressure**
 - B. Reduced hepatic perfusion pressure**
 - C. Increased systemic venous pressure**
 - D. Decreased systemic arterial pressure**
- 10. What does a pattern of high calorie intake on certain nights following a spouse's night class indicate?**
- A. A disabling family coping behavior**
 - B. A lack of dietary instructions**
 - C. A need for cooking classes**
 - D. An individual coping behavior**

Answers

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

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Explanations

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1. What is an important determinant of the effectiveness of patient education regarding medications and hypertension?

- A. Stress and his hospitalization**
- B. Readiness to learn**
- C. Anxious to go home**
- D. Self-esteem**

Readiness to learn is a crucial determinant of the effectiveness of patient education regarding medications and hypertension. When patients are ready to learn, they are more open to receiving information, understanding its significance, and integrating it into their daily lives. This readiness can facilitate better comprehension of the treatment plan, adherence to medications, and lifestyle modifications necessary for managing hypertension. Patients who are prepared and motivated to learn are more likely to ask questions, engage in discussions about their health, and express concerns, which provides opportunities for healthcare providers to tailor education to meet their specific needs. This active participation enhances the retention of information and encourages behavior changes that can lead to improved health outcomes. While factors such as stress, anxiety about going home, and self-esteem can influence a patient's overall experience and engagement, none are as directly linked to their immediate capacity and willingness to absorb and apply information related to their condition and treatment as readiness to learn.

2. Which is a potential complication of heart valve replacement surgery?

- A. Heart failure**
- B. Valve thrombosis**
- C. Arrhythmia**
- D. Stroke**

Valve thrombosis is a notable complication that can arise from heart valve replacement surgery, particularly when a mechanical valve is used. This occurs when a blood clot forms on or around the newly implanted valve, potentially obstructing normal blood flow. Thrombosis is more prevalent in patients who are not adequately anticoagulated, making it critical to maintain appropriate levels of anticoagulant therapy post-surgery to prevent clot formation on the valve. Mechanical valves often require lifelong anticoagulation to minimize the risk of thrombus formation. Patients must be monitored closely for signs of valve dysfunction, which might include symptoms related to decreased cardiac output or abnormal findings on imaging studies. Additionally, valve thrombosis can lead to further complications such as embolic events if a clot dislodges and travels through the circulation to vital organs, emphasizing the importance of careful management in the postoperative period. While other complications such as heart failure, arrhythmia, and stroke can also manifest after valve replacement surgery, the specific risk of valve thrombosis directly relates to the materials and mechanisms involved in the artificial valves and the influencing factors like anticoagulation practices. Understanding this potential complication is essential for managing patient care effectively after a heart valve replacement.

3. Which of the following is a contraindication to physical activity for a patient with a history of cardiac disease?

A. Diabetes

B. Depression

C. Unstable angina

D. Chronic obstructive pulmonary disease

Unstable angina is a significant contraindication to physical activity for patients with a history of cardiac disease. This condition indicates that the heart is not receiving enough blood and oxygen, which can lead to severe complications such as a heart attack. When a patient experiences unstable angina, they may have chest pain or discomfort that occurs at rest, or it may be more intense or occur with less exertion than usual. Engaging in physical activity during episodes of unstable angina can exacerbate these symptoms and increase the risk of serious cardiovascular events. Therefore, it is crucial to manage this condition before considering any form of exercise or physical activity to ensure the patient's safety. In contrast, while diabetes, depression, and chronic obstructive pulmonary disease can complicate a patient's overall health and management plan, they do not inherently present the same immediate threat or acute episode risk as unstable angina does during physical activity. Each of these other conditions may require careful consideration and tailored exercise recommendations, but they do not serve as direct contraindications in the same way unstable angina does.

4. What is a common teaching focus for patients with a risk of venous thromboembolism?

A. Importance of maintaining hydration

B. Need for bed rest during recovery

C. Use of antibiotics to prevent infection

D. Avoiding all physical activity

The emphasis on maintaining hydration for patients at risk of venous thromboembolism (VTE) is crucial because adequate hydration helps in promoting good blood flow and reducing blood viscosity. Dehydration can lead to thicker blood, which increases the likelihood of clot formation. Hence, teaching patients about the importance of staying hydrated can serve as a preventive measure against VTE. When patients maintain good hydration, it assists in ensuring the blood is not overly concentrated, which can exacerbate the risk of clots in veins. It is essential for patients to understand how proper fluid intake can aid their overall vascular health and reduce the risk of developing blood clots during both acute care and recovery stages. While the other options address different aspects of patient care, they do not directly relate to the specific prevention of venous thromboembolism in the same way. For instance, bed rest can be contraindicated as prolonged immobility is a known risk factor for VTE. The use of antibiotics is related more to infection prevention rather than VTE, and avoiding all physical activity can promote immobility, which is detrimental in this scenario. In contrast, hydration serves as a practical and direct approach to mitigating the risk of venous thromboembolism.

5. What is the significance of measuring blood pressure in cardiovascular nursing?
- A. It indicates renal function
 - B. It assesses peripheral circulation
 - C. It provides information about cardiac workload and vascular health**
 - D. It is not relevant to cardiac assessment

Measuring blood pressure is crucial in cardiovascular nursing as it provides valuable insights into cardiac workload and vascular health. Blood pressure levels reflect how well the heart is functioning and how effectively it is pumping blood throughout the body. High blood pressure can indicate increased workload on the heart, potentially leading to hypertrophy and heart failure over time, while low blood pressure might suggest inadequate perfusion to vital organs. Moreover, blood pressure serves as an indicator of vascular health. It can reveal the status of the vascular system, including arterial stiffness and resistance. Monitoring blood pressure helps in assessing the risk for cardiovascular diseases and guides interventions to prevent complications. The other options, while related to cardiovascular health, don't encompass the comprehensive significance that blood pressure measurement holds in understanding overall cardiac workload and vascular conditions. For instance, although renal function can be influenced by blood pressure, this is not the primary purpose of measuring it in a cardiovascular context. Assessing peripheral circulation is important, but it doesn't provide the same direct insight into the heart's workload as blood pressure does. Lastly, stating that blood pressure measurement is not relevant to cardiac assessment disregards its fundamental role in evaluating cardiac and vascular health.

6. What condition is indicated by a stat EKG revealing ST-segment elevation?
- A. Stable angina
 - B. Anemia
 - C. Anterior ST elevation MI**
 - D. Heart failure

ST-segment elevation on an EKG is a critical finding commonly associated with acute myocardial infarction (MI), particularly indicating damage to the heart muscle due to inadequate blood supply. When ST-segment elevation occurs, it typically reflects that part of the heart is currently in distress, often signaling that an artery supplying that area is occluded. In the case of an anterior ST elevation MI, this condition means there is significant and acute damage occurring to the anterior wall of the left ventricle, commonly due to a blockage in the left anterior descending artery. The elevation of the ST segment is due to the injury currents that reflect myocardial ischemia or injury, highlighting the urgency of intervention to restore blood flow. Other conditions listed do not typically produce ST-segment elevation. For instance, stable angina is characterized by transient chest pain with normal EKG findings between episodes. Anemia can lead to complications affecting the heart but does not cause characteristic EKG changes like ST-segment elevation. Heart failure is a broader condition associated with a range of symptoms and EKG findings but does not specifically manifest as ST-segment elevation unless accompanied by myocardial ischemia. Thus, the correct identification of an anterior ST elevation MI serves as a critical diagnostic marker for cardiac emergencies needing

7. What signs might indicate a patient is experiencing postural hypotension after medication administration?

- A. Increased blood pressure upon standing**
- B. Dizziness or lightheadedness when rising**
- C. Increased heart rate during rest**
- D. Decreased respiratory rate during activity**

Postural hypotension, also known as orthostatic hypotension, occurs when a person's blood pressure drops significantly upon standing up or changing positions. This drop in blood pressure can lead to symptoms such as dizziness or lightheadedness. When a patient experiences these sensations after medication administration, it suggests that the medication may be impacting the autonomic nervous system or blood volume regulation, which is affecting blood pressure stability upon standing. This symptom serves as an important clinical indicator for healthcare providers to reassess the patient's medication regimen or to provide further education on how to manage changes in posture safely. Other signs, such as tiredness or fainting, can also be associated, but the primary indicators are specifically related to the change in orientation and the resultant blood pressure decrease leading to the sensations mentioned.

8. What is characterized by inflammation of the pericardial sac surrounding the heart?

- A. Myocarditis**
- B. Pericarditis**
- C. Endocarditis**
- D. Cardiomyopathy**

Pericarditis is characterized by inflammation of the pericardial sac surrounding the heart. This condition can result from a variety of causes, including viral infections, bacterial infections, autoimmune diseases, trauma, or post-surgery complications. The inflammation of the pericardium can lead to symptoms such as chest pain, which often worsens with deep breathing or lying down, and may lead to pericardial effusion, where fluid accumulates in the pericardial space. Understanding the context of pericarditis is crucial for differentiating it from similar cardiac conditions. For instance, myocarditis involves inflammation of the myocardium, the heart muscle itself, which can impact heart function. Endocarditis refers to inflammation of the inner lining of the heart chambers and valves, often due to an infection, while cardiomyopathy is a broad term for diseases of the heart muscle that can lead to various issues regarding heart function but does not involve inflammation of the pericardium. Each of these conditions has distinct pathophysiology and clinical manifestations, but pericarditis is specifically associated with the inflammation of the pericardial sac.

9. What characterizes right-sided heart failure?

- A. Elevated pulmonary artery pressure**
- B. Reduced hepatic perfusion pressure**
- C. Increased systemic venous pressure**
- D. Decreased systemic arterial pressure**

Right-sided heart failure is characterized by an inability of the right ventricle to effectively pump blood to the lungs, which leads to a series of compensatory changes in the cardiovascular system. One of the hallmark features of this condition is increased systemic venous pressure. As the right side of the heart struggles to handle the volume of blood returning from the body, blood begins to back up in the systemic venous circulation. This elevation in pressure can lead to symptoms such as peripheral edema, ascites, and jugular venous distension, which are common manifestations of right-sided heart failure. Increased systemic venous pressure reflects the heart's inability to effectively manage the return of blood, leading to congestion in the venous system. This is a critical aspect of right-sided heart failure and is essential for understanding the clinical signs and symptoms associated with the condition.

10. What does a pattern of high calorie intake on certain nights following a spouse's night class indicate?

- A. A disabling family coping behavior**
- B. A lack of dietary instructions**
- C. A need for cooking classes**
- D. An individual coping behavior**

The pattern of high calorie intake on certain nights following a spouse's night class can be viewed as an individual coping behavior. This suggests that the individual may be using food as a means to manage feelings of loneliness or boredom that arise during those nights when their spouse is unavailable. It reflects a personal strategy to cope with the emotional dynamics of that specific time. This behavior may highlight how the individual seeks comfort or a sense of fulfillment when alone, potentially turning to food as a temporary way to avoid negative emotions associated with solitude. By recognizing this pattern as an individual coping mechanism, healthcare professionals can focus on addressing emotional and psychological needs, alongside dietary habits. Understanding this dynamic can also lead to interventions that promote healthier coping strategies and improve overall well-being, by teaching individuals how to cope with feelings without relying heavily on food.