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

Study Guide



Everything you need from our exam experts!

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Questions



- 1. What demonstrates effective understanding of discharge teaching in a patient who underwent coronary artery bypass surgery?
 - A. Asking whether smoking one cigarette per day is acceptable
 - B. Clarifying when cardiac rehabilitation will begin
 - C. Describing plans to relax in a hot tub during surgery
 - D. Planning to resume driving his or her spouse to work next week
- 2. What is an appropriate action for a cardiac-vascular nurse when a patient in outpatient rehabilitation shows signs of depression?
 - A. A referral for counseling and possible medication
 - B. A trial of herbal remedies
 - C. Alternative therapies, including yoga and massage
 - D. Comprehensive information about the patient's cardiac status
- 3. What intervention is essential for primary prevention of coronary artery disease?
 - A. Regular use of aspirin
 - **B.** Screening for diabetes
 - C. Implementing lifestyle changes
 - D. Invasive surgical procedures
- 4. What is a primary risk factor for developing cardiovascular disease?
 - A. Regular physical activity
 - B. Increased age and family history
 - C. Balanced diet low in fats
 - D. Non-smoking status
- 5. What is the normal range for adult heart rate at rest?
 - A. 50 to 80 beats per minute
 - B. 60 to 100 beats per minute
 - C. 70 to 110 beats per minute
 - D. 80 to 120 beats per minute

- 6. Why is cholesterol screening important for adults?
 - A. To evaluate kidney function
 - B. To assess risk for heart disease and determine treatment needs
 - C. To monitor liver enzymes
 - D. To detect diabetes
- 7. What symptom might a patient with chronic venous obstruction frequently complain of?
 - A. Thin, shiny skin
 - B. Hair loss of the affected extremity
 - C. Diminished sensory function
 - D. Swelling of the lower legs
- 8. What is the relationship between high cholesterol and cardiovascular disease?
 - A. High cholesterol can reduce blood viscosity
 - B. High cholesterol contributes to plaque buildup in arteries
 - C. High cholesterol improves circulation efficiency
 - D. High cholesterol has no effect on heart health
- 9. How should a patient be advised to manage symptoms of angina at home?
 - A. Take an additional dose of prescribed nitroglycerin if symptoms persist
 - B. Engage in vigorous exercise to overcome pain
 - C. Immediately call emergency services at the onset of symptoms
 - D. Limit fluid intake to avoid worsening symptoms
- 10. Which medication class is often used to manage hypertension and heart failure?
 - A. Statins
 - **B.** ACE inhibitors
 - C. Anticoagulants
 - D. Beta-blockers

<u>Answers</u>



- 1. B 2. A 3. C

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



Explanations



- 1. What demonstrates effective understanding of discharge teaching in a patient who underwent coronary artery bypass surgery?
 - A. Asking whether smoking one cigarette per day is acceptable
 - B. Clarifying when cardiac rehabilitation will begin
 - C. Describing plans to relax in a hot tub during surgery
 - D. Planning to resume driving his or her spouse to work next week

Selecting the option about clarifying when cardiac rehabilitation will begin demonstrates an effective understanding of discharge teaching following coronary artery bypass surgery. Cardiac rehabilitation is a critical component of recovery for patients who have undergone this procedure. It not only supports physical recovery through supervised exercise but also provides education on lifestyle changes, medication management, and risk factor modification to prevent future heart problems. Patients are taught about the importance of following up with their cardiac rehabilitation program to ensure optimal recovery and long-term health. By actively seeking information on the start of this program, the patient is showing engagement in their post-surgical care and a commitment to adhering to the prescribed plan for recovery. This inquiry reflects a proactive attitude toward health management and an understanding of the transition from hospital to home care. In contrast, other options show varying degrees of misunderstanding or misprioritization of recovery goals. For instance, inquiring about the acceptability of smoking a cigarette reflects a lack of awareness regarding the detrimental effects of tobacco on cardiac health, which is essential for recovery. Making plans to relax in a hot tub may not consider the potential risks involved in post-operative recovery, such as heat exposure or causing strain in the surgical area. Planning to resume driving soon after surgery could overlook the need for adequate healing time and

- 2. What is an appropriate action for a cardiac-vascular nurse when a patient in outpatient rehabilitation shows signs of depression?
 - A. A referral for counseling and possible medication
 - B. A trial of herbal remedies
 - C. Alternative therapies, including yoga and massage
 - D. Comprehensive information about the patient's cardiac status

When a patient in outpatient rehabilitation exhibits signs of depression, an appropriate action is to make a referral for counseling and possible medication. This approach is crucial because individuals with cardiovascular disease may experience significant emotional distress that can impact their recovery and overall well-being. Counseling can provide a supportive space for the patient to address their feelings and develop coping strategies. Additionally, medication, such as antidepressants, can be appropriate for managing more severe symptoms of depression that interfere with daily activities and rehabilitation efforts. While some alternative therapies and herbal remedies might be beneficial for some patients, they are not typically supported by strong clinical evidence for treating depression, particularly in a rehabilitation setting. Comprehensive information about the patient's cardiac status, while important for overall care, does not directly address the mental health concerns that are pivotal to the patient's recovery and rehabilitation process. Thus, the referral for professional mental health support is the most comprehensive and effective course of action in this scenario.

3. What intervention is essential for primary prevention of coronary artery disease?

- A. Regular use of aspirin
- **B.** Screening for diabetes
- C. Implementing lifestyle changes
- D. Invasive surgical procedures

Implementing lifestyle changes is essential for the primary prevention of coronary artery disease because it directly addresses the modifiable risk factors associated with the development of this condition. Primary prevention aims to reduce the incidence of coronary artery disease before it occurs, and lifestyle changes such as adopting a heart-healthy diet, engaging in regular physical activity, maintaining a healthy weight, managing stress, and avoiding tobacco use are critical components in lowering risk. These behavioral adjustments can significantly impact factors like high blood pressure, cholesterol levels, and blood sugar—key contributors to the development of coronary artery disease. Establishing such healthy habits early on can help mitigate risks and promote cardiovascular health over a lifetime. While options like regular use of aspirin and screening for diabetes can play roles in secondary prevention or management strategies for those already at risk or diagnosed with the disease, they do not directly address prevention in individuals who have not yet developed coronary artery disease. Invasive surgical procedures are typically reserved for those who already have significant disease and are not a preventive measure.

4. What is a primary risk factor for developing cardiovascular disease?

- A. Regular physical activity
- **B.** Increased age and family history
- C. Balanced diet low in fats
- D. Non-smoking status

Increased age and family history are significant primary risk factors for developing cardiovascular disease. As individuals age, the cumulative effects of various biological and lifestyle factors lead to changes in the cardiovascular system, including arterial stiffness and plaque buildup in the arteries. Family history plays a crucial role because genetics can influence susceptibility to conditions such as hypertension, diabetes, and hyperlipidemia, which are all risk factors for cardiovascular disease. Understanding these risk factors is vital in identifying individuals who may be at higher risk and implementing preventive measures. Regular screening and lifestyle modifications can help mitigate these risks. In contrast, the other options—regular physical activity, a balanced diet low in fats, and non-smoking status—are associated with a reduced risk of cardiovascular disease rather than being risk factors themselves.

5. What is the normal range for adult heart rate at rest?

- A. 50 to 80 beats per minute
- B. 60 to 100 beats per minute
- C. 70 to 110 beats per minute
- D. 80 to 120 beats per minute

The normal resting heart rate for adults typically falls within a range of 60 to 100 beats per minute. This range represents the physiological response of a healthy heart resting after activity. Factors such as age, physical fitness, and overall health can influence an individual's resting heart rate, but 60 to 100 beats per minute is widely accepted as the standard normative range for adults. When assessing heart rates, it's important to consider that lower resting heart rates, often observed in well-conditioned athletes, might be indicative of better cardiovascular fitness. Conversely, higher rates can be a sign of stress, illness, or lack of fitness. Maintaining heart rates within the 60 to 100 beats per minute range is vital for optimal heart and cardiovascular function.

6. Why is cholesterol screening important for adults?

- A. To evaluate kidney function
- B. To assess risk for heart disease and determine treatment needs
- C. To monitor liver enzymes
- D. To detect diabetes

Cholesterol screening is crucial for adults primarily because it helps assess the risk for heart disease and determine the appropriate treatment needs. Elevated cholesterol levels, particularly low-density lipoprotein (LDL) cholesterol, are strongly associated with an increased risk of cardiovascular events, such as heart attacks and strokes. By screening cholesterol levels, healthcare providers can identify individuals at high risk and implement preventive strategies, such as lifestyle modifications or medication. This preventive approach is important as it allows for early intervention before serious cardiovascular issues arise. Knowing where a patient's cholesterol levels stand can guide healthcare providers in making informed decisions regarding the need for therapeutic lifestyle changes or pharmacologic treatments, which ultimately contributes to better cardiovascular health outcomes. In contrast, while kidney function, liver enzymes, and diabetes monitoring are important aspects of overall health, they do not directly relate to the specific risk factors for heart disease that cholesterol screening addresses. Thus, screening for cholesterol provides targeted information necessary for cardiovascular risk assessment and management.

7. What symptom might a patient with chronic venous obstruction frequently complain of?

- A. Thin, shiny skin
- B. Hair loss of the affected extremity
- C. Diminished sensory function
- D. Swelling of the lower legs

Chronic venous obstruction often leads to increased venous pressure, resulting in fluid accumulation in the lower extremities. This accumulation manifests as swelling, or edema, particularly in the legs and ankles. Patients typically report this swelling, especially after periods of prolonged sitting or standing, as the gravitational forces exacerbate the condition. In contrast, thin, shiny skin, hair loss on the affected extremity, and diminished sensory function may be more associated with arterial issues or long-term venous insufficiency rather than acute symptoms of chronic venous obstruction. Thus, swelling of the lower legs is a direct and common symptom experienced by patients suffering from chronic venous obstruction.

8. What is the relationship between high cholesterol and cardiovascular disease?

- A. High cholesterol can reduce blood viscosity
- B. High cholesterol contributes to plague buildup in arteries
- C. High cholesterol improves circulation efficiency
- D. High cholesterol has no effect on heart health

High cholesterol is closely associated with the development of cardiovascular disease primarily because it contributes to the accumulation of plaque within the arteries. This plaque, made up of cholesterol, fatty substances, cellular waste products, and calcium, can narrow the arteries and restrict blood flow, leading to a condition known as atherosclerosis. Over time, this process increases the risk of serious complications such as heart attacks and strokes, as the narrowed arteries may become completely blocked or plaque can rupture and form clots. Therefore, understanding the role of high cholesterol in causing plaque buildup is crucial for managing cardiovascular health. This relationship emphasizes the importance of monitoring cholesterol levels as part of cardiovascular disease risk assessment and management. Effective strategies to lower cholesterol, such as lifestyle modifications and medications, can ultimately reduce the risk of cardiovascular events and promote overall heart health.

- 9. How should a patient be advised to manage symptoms of angina at home?
 - A. Take an additional dose of prescribed nitroglycerin if symptoms persist
 - B. Engage in vigorous exercise to overcome pain
 - C. Immediately call emergency services at the onset of symptoms
 - D. Limit fluid intake to avoid worsening symptoms

Advising a patient to take an additional dose of prescribed nitroglycerin if symptoms persist is correct because nitroglycerin is a medication specifically designed to relieve angina symptoms by dilating blood vessels. This action improves blood flow to the heart muscle, alleviating the pain associated with angina. It is vital for patients to be educated about the proper use of nitroglycerin, including the recommended dosage and the fact that they should wait a specific time period between doses, usually 5 minutes, and seek medical attention if the pain does not subside after three doses. This advice is crucial in managing angina at home, ensuring the patient knows how to respond effectively to their symptoms. In contrast, engaging in vigorous exercise is not advisable during an angina episode, as it may increase oxygen demand and exacerbate the pain. Calling emergency services immediately at the onset of symptoms may not be necessary unless the angina is unrelieved by medication or there are signs of a heart attack, such as severe discomfort, sweating, or nausea. Limiting fluid intake is generally not related to managing angina and is more pertinent in cases of heart failure or fluid retention issues. Therefore, the focus should be on proper medication management and understanding when to

10. Which medication class is often used to manage hypertension and heart failure?

- A. Statins
- B. ACE inhibitors
- C. Anticoagulants
- D. Beta-blockers

ACE inhibitors are commonly used to manage both hypertension and heart failure due to their mechanism of action. They work by inhibiting the angiotensin-converting enzyme, which leads to decreased production of angiotensin II, a potent vasoconstrictor. This results in the dilation of blood vessels, lowering blood pressure and reducing the workload on the heart. In heart failure, ACE inhibitors help improve symptoms by decreasing blood pressure, reducing fluid retention, and enhancing renal perfusion, which can prevent further heart remodeling. They can also improve morbidity and mortality in heart failure patients. The dual benefit of managing high blood pressure while supporting heart function makes ACE inhibitors a cornerstone in the treatment of these conditions. Other medication classes, while beneficial for specific health issues, do not serve the dual purpose as effectively. Statins primarily focus on lowering cholesterol levels and reducing the risk of cardiovascular events, anticoagulants are used to prevent thromboembolic events without directly impacting blood pressure or heart failure management, and beta-blockers, while they do help with heart failure and can address hypertension, do not provide the same class-wide focus and benefits seen with ACE inhibitors across both conditions.