New York State Basic Emergency Medical Technician (EMT-B) Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. **How is airway obstruction typically managed in a conscious infant?**

   A. Choking protocol only

   B. Suctioning only

   C. Back blows and chest thrusts

   D. Manual airway repositioning

2. **If the end of the umbilical cord is bleeding after clamping and cutting, what is the most appropriate action?**

   A. Apply another clamp as close to the original as possible

   B. Purge the area with antiseptic

   C. Apply pressure directly on the cord

   D. Wait for further instructions from medical personnel

3. **What should EMS providers do if patient care protocols have been revised?**

   A. Review the changes alone

   B. Attend in-service training with the agency medical director

   C. Implement changes without training

   D. Wait for an annual review session

4. **In managing head trauma, what should be closely monitored?**

   A. Pulse rate changes

   B. Change in breathing pattern

   C. Changes in patient's mental status

   D. Skin color and temperature

5. **Which chamber of the heart is the most muscular and pumps blood into the aorta?**

   A. Right atrium

   B. Left ventricle

   C. Right ventricle

   D. Left atrium

6. What is a critical respiratory consideration for infants until they are approximately 6 months old?

- **A. They should breathe through their mouths**
- **B. They will breathe more efficiently when lying on their stomachs**
- **C. They may suffer respiratory distress if their noses become obstructed**
- **D. They can use nasal cannulas safely for oxygen**

7. If you palpate a strong radial pulse of 100 in a trauma patient, what should you do with a blood pressure reading of 68/32?

- **A. Suspect the accuracy and reevaluate it**
- **B. Accept the reading as accurate**
- **C. Retake BP reading in 15 minutes**
- **D. Treat patient for hypertension immediately**

8. Which condition is characterized by low blood sugar?

- **A. Hyperglycemia**
- **B. Hypoglycemia**
- **C. Diabetic ketoacidosis**
- **D. Insulin resistance**

9. What is the CPR compression-to-breath ratio for newborns?

- **A. 5 compressions : 1 breath**
- **B. 3 compressions : 1 breath**
- **C. 15 compressions : 2 breaths**
- **D. 30 compressions : 2 breaths**

10. When treating a victim with a suspected shoulder injury, what should you do first?

- **A. Apply ice to the injury.**
- **B. Manually stabilize the injury site.**
- **C. Rush victim to the hospital.**
- **D. Perform a range of motion assessment.**

Answers

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

Explanations

1. How is airway obstruction typically managed in a conscious infant?

A. Choking protocol only

B. Suctioning only

C. Back blows and chest thrusts

D. Manual airway repositioning

In the case of a conscious infant experiencing airway obstruction, the appropriate management technique is to perform back blows and chest thrusts. This method is designed to dislodge an object that is causing the obstruction. The back blows involve delivering a series of forceful slaps between the infant's shoulder blades while they are positioned face down, which can help create enough pressure to potentially dislodge the obstruction. If this action doesn't resolve the issue, chest thrusts are applied while the infant is in a supine position, and these thrusts aid in further generating pressure in the thoracic cavity, assisting in expelling the foreign object from the airway. Utilizing both techniques together increases the effectiveness and safety of managing an obstructed airway in an infant, as they are gentle yet capable of generating the necessary force without causing additional injury, which is critical with the vulnerable infant population.

2. If the end of the umbilical cord is bleeding after clamping and cutting, what is the most appropriate action?

A. Apply another clamp as close to the original as possible

B. Purge the area with antiseptic

C. Apply pressure directly on the cord

D. Wait for further instructions from medical personnel

Applying another clamp as close to the original as possible is the most appropriate action to take when the end of the umbilical cord is bleeding after clamping and cutting. This technique helps to minimize blood loss by creating a secure occlusion at the site of the bleeding. When the umbilical cord is cut, the blood vessels within it may not be effectively sealed by the initial clamp if there is any movement or if the clamp was not applied firmly enough. The second clamp serves to reinforce the first, ensuring that the blood vessels are tightly closed. This intervention is particularly critical in newborn care, as excessive bleeding from the umbilical cord can lead to significant blood loss and other complications. In contrast, purging the area with antiseptic does not address the immediate concern of bleeding and may not be appropriate in the context of an active situation requiring rapid intervention. Applying direct pressure on the cord may not be effective, as it could potentially cause further injury to the vessels or disrupt the clamping. Lastly, waiting for further instructions from medical personnel in an emergency situation could delay necessary care and lead to worsening of the issue at hand, which emphasizes the need for immediate action in such scenarios.

3. What should EMS providers do if patient care protocols have been revised?

A. Review the changes alone

B. Attend in-service training with the agency medical director

C. Implement changes without training

D. Wait for an annual review session

Attending in-service training with the agency medical director is essential when patient care protocols have been revised, as it ensures that EMS providers fully understand the new protocols and can implement them correctly and safely. In-service training provides an opportunity for hands-on learning, clarification of any uncertainties, and a chance to ask questions directly to the medical director, who is often familiar with the rationale behind the changes and the most current practices in patient care. This collaborative environment helps ensure that all providers are on the same page, thereby enhancing patient safety and care quality. Reviewing the changes alone does not offer the same depth of understanding or the ability to engage with experts on the new protocols. Implementing changes without the benefit of training could lead to mistakes in patient care or the failure to apply protocols as intended. Additionally, waiting for an annual review session could delay the integration of important updates into practice, which is not in the best interest of patient care. Therefore, involvement in dedicated training sessions is crucial for properly adapting to revised protocols.

4. In managing head trauma, what should be closely monitored?

A. Pulse rate changes

B. Change in breathing pattern

C. Changes in patient's mental status

D. Skin color and temperature

In managing head trauma, closely monitoring changes in the patient's mental status is crucial because alterations can indicate changes in intracranial pressure, brain function, or the presence of a worsening condition. Mental status assessments can reveal the effectiveness of cerebral perfusion, neurological function, and possible progression to more serious complications, such as a brain hemorrhage or swelling. By regularly evaluating the patient's orientation, responsiveness, and ability to follow commands, emergency medical personnel can quickly detect deteriorating conditions, which can be life-threatening. This monitoring is essential to guide further medical interventions and to communicate relevant information to receiving medical facilities. While pulse rate changes, breathing patterns, and skin color and temperature are also important indicators of a patient's overall condition, they may not provide specific insight into the neurological function that is particularly critical in head trauma cases.

5. Which chamber of the heart is the most muscular and pumps blood into the aorta?

A. Right atrium

B. Left ventricle

C. Right ventricle

D. Left atrium

The left ventricle is the most muscular chamber of the heart due to its critical role in pumping oxygenated blood throughout the body. This chamber must generate enough force to propel blood into the aorta, which is the largest artery in the body, and supply all peripheral tissues and organs with the necessary oxygen and nutrients. The thick walls of the left ventricle are adapted for this high-pressure function, distinguishing it from the other chambers of the heart, which have less muscle mass because they pump blood to nearby structures or operate at lower pressures. As a result, the left ventricle's muscular structure is essential for maintaining systemic circulation effectively.

6. What is a critical respiratory consideration for infants until they are approximately 6 months old?

A. They should breathe through their mouths

B. They will breathe more efficiently when lying on their stomachs

C. They may suffer respiratory distress if their noses become obstructed

D. They can use nasal cannulas safely for oxygen

Infants until they are about 6 months old have a unique anatomical and physiological characteristic that makes them highly dependent on nasal breathing. They are obligate nasal breathers, which means that they primarily breathe through their noses rather than their mouths. If their nasal passages become obstructed due to mucus, swelling, or another condition, they can quickly experience respiratory distress because they are not able to compensate effectively by breathing through their mouths. This is a crucial consideration for caregivers and healthcare providers, as proper air exchange is vital for their health and safety. Other options do not reflect the critical nature of nasal passage patency for infants. Mouth breathing is not typical for infants and could lead to further complications. While the position of infants during sleep can impact their breathing, lying on their stomachs is not necessarily the safest or most efficient position for respiration. Finally, while nasal cannulas can be effective for providing supplemental oxygen, they require careful consideration in infants, as their reliance on nasal breathing necessitates a cautious approach to ensure the proper delivery of oxygen, which is not the primary concern when discussing critical respiratory considerations for this age group.

7. If you palpate a strong radial pulse of 100 in a trauma patient, what should you do with a blood pressure reading of 68/32?

A. Suspect the accuracy and reevaluate it

B. Accept the reading as accurate

C. Retake BP reading in 15 minutes

D. Treat patient for hypertension immediately

In a trauma patient, the presence of a strong radial pulse with a heart rate of 100 beats per minute alongside a low blood pressure reading of 68/32 suggests a concerning situation. Normally, one would expect a stronger pulse to be associated with a higher blood pressure, making this scenario atypical. Palpating a strong radial pulse indicates that there is some degree of perfusion; however, the significant discrepancy with such a low blood pressure raises questions about the accuracy of the reading. Factors such as patient movement, improper cuff size, or physiological changes related to the trauma could affect the blood pressure measurement. In this context, reevaluating the blood pressure reading is essential. It is critical to ensure that the assessment reflects the patient's true hemodynamic status, particularly because a persistently low blood pressure could indicate significant blood loss, shock, or other critical conditions. Therefore, suspecting inaccuracy and reevaluating allows for proper decision-making in the management of the trauma patient.

8. Which condition is characterized by low blood sugar?

A. Hyperglycemia

B. Hypoglycemia

C. Diabetic ketoacidosis

D. Insulin resistance

Hypoglycemia is the condition characterized by low blood sugar levels. This occurs when blood glucose falls below the normal range, typically defined as less than 70 mg/dL. Symptoms of hypoglycemia can include shakiness, confusion, sweating, dizziness, and in severe cases, loss of consciousness or seizures. This condition frequently affects individuals with diabetes who may take insulin or other glucose-lowering medications, particularly if they skip meals, over-exercise, or miscalculate their insulin dosage. Recognizing hypoglycemia is crucial for EMTs, as it requires prompt treatment to restore blood sugar levels and mitigate potential serious complications. In contrast, hyperglycemia refers to high blood sugar levels, which can lead to significant health issues over time if not managed. Diabetic ketoacidosis is a severe condition that arises from uncontrolled hyperglycemia and results in the production of ketones, leading to acidity in the blood. Insulin resistance occurs when the body's cells do not respond well to insulin, leading to elevated blood glucose levels but does not directly correlate with low blood sugar. Understanding these differences is key in emergency medical situations.

9. What is the CPR compression-to-breath ratio for newborns?

A. 5 compressions : 1 breath

B. 3 compressions : 1 breath

C. 15 compressions : 2 breaths

D. 30 compressions : 2 breaths

The recommended CPR compression-to-breath ratio for newborns is 3 compressions for every 1 breath. This specific ratio is crucial because it ensures that adequate chest compressions are delivered to maintain blood circulation, while also providing breaths to support oxygenation in a neonatal patient. In neonatal resuscitation, the focus is on providing more frequent compressions relative to breaths, reflecting the unique physiological needs of newborns whose hearts are smaller and require a delicate balance of ventilation and circulation support. Employing this ratio helps to improve blood flow and oxygenation in a very vulnerable population, where timely and effective intervention is vital. Understanding this ratio can significantly enhance the effectiveness of CPR in newborns and increase the chances of a positive outcome during a critical situation.

10. When treating a victim with a suspected shoulder injury, what should you do first?

A. Apply ice to the injury.

B. Manually stabilize the injury site.

C. Rush victim to the hospital.

D. Perform a range of motion assessment.

In the case of a suspected shoulder injury, the primary goal is to prevent further injury and provide support to the affected area. Manually stabilizing the injury site is the most critical first step. By stabilizing the shoulder, you minimize movement and reduce the risk of additional damage to the muscles, ligaments, or joints, which can occur if the injury is aggravated. This approach allows you to assess the situation without causing the victim unnecessary pain or worsening their condition. Stabilizing the area also helps in managing any potential complications, such as dislocations or fractures, until further medical treatment can be provided. Applying ice, rushing the victim to the hospital, or performing a range of motion assessment are important steps that may be taken later, but they should not precede the stabilization of the injury. Each of these responses could inadvertently increase the risk of further injury or provide inadequate support during a critical moment of care.