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

Study Guide

Everything you need from our exam experts!

Questions

1. **In emergency care, what is an appropriate response during CPR for a patient with a suspected airway obstruction?**
   - **A. Begin rescue breathing immediately**
   - **B. Perform abdominal thrusts**
   - **C. Monitor the pulse only**
   - **D. Continue chest compressions uninterrupted**

2. **Which structure is responsible for the exchange of oxygen and carbon dioxide in the lungs?**
   - **A. Bronchioles**
   - **B. Alveoli**
   - **C. Pleura**
   - **D. Capillaries**

3. **What is the best device for moving a patient with a suspected lumbar spinal injury over uneven terrain?**
   - **A. Wheeled stretcher**
   - **B. Long spine board**
   - **C. Flexible stretcher**
   - **D. Short spine board**

4. **If an adult suffers partial thickness burns over the chest, abdomen, back, buttocks, and right arm, what percentage of body surface has been burned according to the rule of 9's?**
   - **A. 36%**
   - **B. 45%**
   - **C. 54%**
   - **D. 27%**

5. **What should be done for an unconscious patient who has generalized hypothermia?**
   - **A. Rapidly warm the patient**
   - **B. Prevent further heat loss and transport gently**
   - **C. Administer intravenous fluids**
   - **D. Apply external heat sources**

6. How is a closed bone or joint injury best defined?

- **A. As an injury that involves a break in the bone**
- **B. As an injury where the skin remains intact**
- **C. As an injury that causes significant swelling**
- **D. As an injury that requires immediate surgical intervention**

7. What does "distal" mean in anatomical terms?

- **A. Away from the point of attachment**
- **B. Toward the midline**
- **C. Closer to the point of attachment**
- **D. Back**

8. If you suspect a patient is a victim of child abuse, what should you do first?

- **A. Notify local child protective agency**
- **B. Talk to the parents**
- **C. Assess the child thoroughly**
- **D. Call the police immediately**

9. 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**

10. In an emergency situation, which is a key factor for determining the mechanism of injury?

- **A. Patient age**
- **B. Location of incident**
- **C. Type of vehicle involved**
- **D. Type of impact**

Answers

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

Explanations

1. In emergency care, what is an appropriate response during CPR for a patient with a suspected airway obstruction?

A. Begin rescue breathing immediately

B. Perform abdominal thrusts

C. Monitor the pulse only

D. Continue chest compressions uninterrupted

In cases of suspected airway obstruction, performing abdominal thrusts is the appropriate response. This technique is designed to expel an object blocking the airway by applying pressure to the abdomen, forcing air from the lungs and potentially dislodging whatever is causing the obstruction. This is critical because it addresses the immediate threat to the patient's life posed by the blocked airway, which is essential for effective breathing and circulation. Beginning rescue breathing immediately would be inappropriate in this scenario because if the airway is obstructed, there is no effective way to ventilate the patient, potentially leading to further complications. Monitoring the pulse alone does not address the immediate problem of the obstruction; it overlooks the necessity of securing the airway. Continuing chest compressions uninterrupted is essential in certain scenarios, particularly when the patient is in cardiac arrest, but if an airway obstruction is suspected, the priority should be resolving that blockage first to restore normal respiratory function and oxygenation.

2. Which structure is responsible for the exchange of oxygen and carbon dioxide in the lungs?

A. Bronchioles

B. Alveoli

C. Pleura

D. Capillaries

The alveoli are the tiny air sacs in the lungs where the critical exchange of oxygen and carbon dioxide occurs. They are surrounded by a network of capillaries, which facilitate the transfer of these gases between the air and the bloodstream. When oxygen-rich air is inhaled, it enters the alveoli, where oxygen passes through the alveolar walls into the capillaries and into the bloodstream. At the same time, carbon dioxide from the blood moves from the capillaries into the alveoli to be exhaled. This process allows for the replenishment of oxygen in the blood while removing carbon dioxide, which is a waste product of metabolism. Other structures mentioned play supportive roles but do not directly engage in gas exchange. The bronchioles are the small passageways through which air travels to reach the alveoli but are not the sites of gas exchange. The pleura are membranes that surround the lungs and help with the lung expansion and contraction during breathing but are also not involved in gas exchange. Capillaries, while essential for transporting gases, are the vessels that surround the alveoli and are part of the exchange mechanism rather than the primary site of exchange itself.

3. What is the best device for moving a patient with a suspected lumbar spinal injury over uneven terrain?

A. Wheeled stretcher

B. Long spine board

C. Flexible stretcher

D. Short spine board

The best device for moving a patient with a suspected lumbar spinal injury over uneven terrain is a long spine board. This device is specifically designed to immobilize the spine and provide stability during transport, which is critical when managing potential spinal injuries. A long spine board allows for full-body immobilization, ensuring that the patient's spine remains aligned and minimizing the risk of exacerbating any potential injury during movement. It can be used in combination with strapping to secure the patient and restrict movement, which is essential in cases of suspected spinal injury. When maneuvering over uneven terrain, the stability provided by the long spine board is particularly beneficial, as it helps to keep the patient in a controlled position while navigating bumps and obstacles. This reduces the likelihood of jostling or twisting which could further harm the spinal column. Other devices, such as a wheeled stretcher, while effective on flat surfaces, are less suitable for uneven terrain due to their design and reliance on wheels. Flexible and short spine boards offer mobility but do not provide the full immobilization necessary for spinal protections, especially with a suspected lumbar injury.

4. If an adult suffers partial thickness burns over the chest, abdomen, back, buttocks, and right arm, what percentage of body surface has been burned according to the rule of 9's?

A. 36%

B. 45%

C. 54%

D. 27%

To determine the total percentage of body surface burned using the Rule of Nines for adults, each major area of the body is assigned a specific percentage. According to the Rule of Nines: - The head and neck account for 9%. - Each arm represents 9%. - Each leg represents 18%. - The anterior trunk (chest and abdomen) accounts for 18%. - The posterior trunk (back and buttocks) also accounts for 18%. In this scenario, the burns are located on the chest, abdomen, back, buttocks, and right arm. Breaking it down: - The anterior trunk (chest and abdomen combined) is 18%. - The posterior trunk (back and buttocks combined) is also 18%. - The right arm accounts for 9%. Adding these together: 18% (anterior trunk) + 18% (posterior trunk) + 9% (right arm) = 45%. Thus, the total body surface area burned is properly calculated as 45%, making it the correct answer. This method of assessment is crucial for determining the severity of burns and guiding treatment decisions effectively.

5. What should be done for an unconscious patient who has generalized hypothermia?

A. Rapidly warm the patient

B. Prevent further heat loss and transport gently

C. Administer intravenous fluids

D. Apply external heat sources

For an unconscious patient experiencing generalized hypothermia, the priority is to prevent further heat loss and ensure the patient is transported gently. In hypothermia cases, the body's temperature regulation is severely impaired, and rapid warming can lead to complications such as shock or arrhythmias. Preventing additional heat loss involves covering the patient with blankets or warming sheets, and ensuring that the environment surrounding them is as warm as possible. Gentle transport is crucial because swift movements can exacerbate the condition, potentially leading to further physiological stress on an already compromised system. Applying external heat sources directly to the patient or rapidly warming the patient could cause a sudden change in temperature that the body is unable to handle, presenting risks that could worsen the situation. Therefore, a careful and systematic approach focused on gentle handling and maintaining a stable temperature environment is essential for the safety and effectiveness of treatment in such cases.

6. How is a closed bone or joint injury best defined?

A. As an injury that involves a break in the bone

B. As an injury where the skin remains intact

C. As an injury that causes significant swelling

D. As an injury that requires immediate surgical intervention

A closed bone or joint injury is best defined as an injury where the skin remains intact. This means that although there may be damage to the bone or joint structure beneath the skin, there is no break in the skin itself, which differentiates it from an open injury where the skin is breached. In closed injuries, the underlying tissues can sustain damage such as fractures, sprains, or strains without the risk of contamination from the external environment, which is a concern with open injuries. Understanding this definition is important in emergency medical situations as it helps in determining the appropriate treatment and the potential for complications related to infection. The other contexts provided do not precisely define a closed injury; for example, while a closed injury may cause swelling, significant swelling is not a definitive characteristic. Similarly, immediate surgical intervention might be required for some open injuries or severely displaced fractures, but that is not a standard requirement for closed injuries. Lastly, a closed bone or joint injury does not necessarily involve a break in the bone itself, as some closed injuries may not involve fractures at all.

7. What does "distal" mean in anatomical terms?

A. Away from the point of attachment

B. Toward the midline

C. Closer to the point of attachment

D. Back

In anatomical terms, "distal" refers to a position that is farther away from the point of attachment of a limb or organ to the body. This term is commonly used in contrast to "proximal," which indicates a position that is closer to the point of attachment. For example, when discussing the arm, the hand is considered distal to the elbow because it is further away from the attachment of the arm to the torso. Understanding these directional terms is essential for accurate communication in medical and anatomical contexts, as they help describe the location of structures in relation to each other.

8. If you suspect a patient is a victim of child abuse, what should you do first?

A. Notify local child protective agency

B. Talk to the parents

C. Assess the child thoroughly

D. Call the police immediately

When you suspect a patient is a victim of child abuse, the first course of action is to notify the local child protective agency. This step is crucial because child protective services are specifically trained and equipped to handle such sensitive situations. They can provide the necessary assessment and intervention, ensuring the child's safety while also considering the legal implications associated with reporting abuse. Notifying the child protective agency promptly helps ensure that they can start investigating the situation without delay. This agency has the resources and authority to take protective measures, work with law enforcement if necessary, and provide support services to the child and non-offending family members. While discussing the situation with parents or guardians might seem important, it can potentially exacerbate the situation or put the child at further risk if the parents are indeed the abusers. A thorough assessment of the child might also be necessary, but in the context of suspected abuse, it is critical to follow reporting protocols first, as immediate safety is the priority. Calling the police is also essential in some scenarios, especially where there is an imminent threat, but the protocol generally directs the responsibility of initial reporting to child protective services. This structured approach helps ensure that the matter is handled correctly and sensitively by the appropriate professionals.

9. 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.

10. In an emergency situation, which is a key factor for determining the mechanism of injury?

A. Patient age

B. Location of incident

C. Type of vehicle involved

D. Type of impact

Determining the mechanism of injury is crucial in understanding how a patient was harmed, which influences assessment and treatment decisions. The type of impact refers to how the force was applied to the body and can provide insight into potential injuries. For example, in a vehicle collision, whether it was a frontal crash, lateral impact, or rear-end collision will significantly affect the forces transmitted to the occupants, thus affecting the types of injuries they may sustain. By analyzing the type of impact, EMTs can predict patterns of injury, such as whiplash from a rear-end collision or head injuries from a frontal crash, allowing for a targeted approach in both assessment and subsequent care. This information is vital not only for immediate treatment but also for necessary follow-up care, such as imaging or surgical interventions. While patient age, location of the incident, and type of vehicle involved might provide additional context, they are not as directly informative regarding the specific physical forces and injuries that will result from an impact. Understanding the type of impact allows for a deeper understanding of the patient's potential injuries and helps guide effective pre-hospital management.