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

Study Guide

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Questions

1. What should you do if you notice a patient's breathing worsens after sealing a penetrating chest wound?

A. Immediately place the patient on the uninjured side

B. Lift one corner of the dressing

C. Administer positive-pressure ventilation

D. Administer pure oxygen to aid respiration

2. What is the term used when the bone ends of a joint are out of place?

A. Fracture

B. Subluxation

C. Dislocation

D. Sprain

3. A 55-year-old male has a hematoma on his forehead and complains of tingling in both hands. What should you suspect?

A. Hypoperfusion

B. Cervical spine injury

C. Angina pectoris

D. Hyperventilation

4. What is considered the best measure of respiration?

A. Heart rate

B. Skin color

C. Blood pressure

D. Temperature

5. What is your first action when responding to a call for a possible suicide involving a locked basement?

A. Enter the basement immediately

B. Request police assistance before entering

C. Try to speak with the patient through the door

D. Call for backup EMS support

6. How does compressing a pressure point on an extremity help control bleeding?

A. Stops circulation

B. Aids in controlling bleeding distal to the injury

C. Reduces swelling

D. Increases blood flow to the extremity

7. How long should an adult patient be suctioned unless further suctioning is necessary?

A. 5 seconds

B. 10 seconds

C. 15 seconds

D. 20 seconds

8. What is the appropriate hand position for performing external cardiac compressions on a 4-year-old child?

A. Heel of one hand

B. Both hands together

C. Fingers interlocked

D. Flat palm

9. Which condition would likely require urgent care in a patient?

A. Mild headache

B. Severe chest pain

C. Fatigue

D. Minor cuts and scrapes

10. What should an EMS provider do as part of body substance isolation precautions?

A. Wear protective goggles

B. Use gloves and masks appropriately

C. Disinfect equipment after use

D. All of the above

Answers

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

Explanations

1. What should you do if you notice a patient's breathing worsens after sealing a penetrating chest wound?

A. Immediately place the patient on the uninjured side

B. Lift one corner of the dressing

C. Administer positive-pressure ventilation

D. Administer pure oxygen to aid respiration

In the scenario of a worsening respiratory condition after sealing a penetrating chest wound, lifting one corner of the dressing is the appropriate action. This is because a sealed penetrating chest wound can create a tension pneumothorax, where air becomes trapped in the pleural cavity, leading to increased pressure on the lungs and reduced effectiveness of breathing. By lifting one corner of the dressing, you allow air to escape from the pleural space, reducing the pressure and thus potentially improving the patient's ability to breathe. Maintaining the correct balance between sealing the wound and allowing necessary air exchange is critical. In managing chest injuries, it's essential to monitor the patient's respiratory status closely and adjust the treatment accordingly. Other choices, while they may seem relevant, would not directly address the immediate need to relieve the pressure in this situation. Simply placing the patient on the uninjured side could help in some cases, but it does not alleviate the tension that might be building up. Administering positive-pressure ventilation could exacerbate the situation by increasing pressure further unless it is managed carefully, since it would push air into a system that may already be compromised. Administering pure oxygen might help with oxygenation but does not resolve the underlying problem of a potential tension pneumothorax

2. What is the term used when the bone ends of a joint are out of place?

A. Fracture

B. Subluxation

C. Dislocation

D. Sprain

The term that describes the condition when the bone ends of a joint are out of place is dislocation. A dislocation occurs when the articulating surfaces of a joint are separated, preventing normal function of the joint. This condition typically results from trauma or excessive force applied to a joint, causing significant pain, swelling, and immobility. In a dislocation, the joint's normal alignment is disrupted, which can lead to damage to surrounding ligaments, tendons, nerves, and blood vessels. The treatment for a dislocation usually involves manual repositioning of the bones back into their normal alignment, often requiring medical intervention. Understanding the difference between dislocation and related conditions, such as fracture, subluxation, and sprain, is essential. A fracture refers to a break in the bone itself, while a subluxation is a partial dislocation where the surfaces are misaligned but still in contact. A sprain involves a stretching or tearing of ligaments around a joint without any separation of the bone ends. Thus, dislocation specifically indicates a complete displacement of the bones at a joint, making it the correct term for this scenario.

3. A 55-year-old male has a hematoma on his forehead and complains of tingling in both hands. What should you suspect?

A. Hypoperfusion

B. Cervical spine injury

C. Angina pectoris

D. Hyperventilation

In the scenario described, the combination of a hematoma on the forehead and tingling in both hands suggests a possible cervical spine injury. The hematoma indicates a trauma to the head, which can also affect the spine, particularly at the cervical level. Because of the close anatomical relationship between the head and the cervical spine, a head injury can lead to neurological symptoms if there is damage to the cervical structures or spinal cord. Tingling in both hands can be a sign of nerve involvement, commonly due to a cervical spine injury which may have caused pressure or damage to the nerves or spinal cord responsible for sensation and motor control in the upper extremities. This neurological symptom aligns with the mechanism of an injury that could compromise spinal function. While hypoperfusion, angina pectoris, and hyperventilation may present with various symptoms, they do not specifically correlate with a head injury and concurrent bilateral tingling in the hands in the same way that a cervical spine injury would. Understanding these relationships is key in assessing potential spinal cord injuries in trauma cases.

4. What is considered the best measure of respiration?

A. Heart rate

B. Skin color

C. Blood pressure

D. Temperature

The best measure of respiration among the options provided is skin color. Assessing skin color can indicate how well oxygen is being transported in the blood, which is closely related to respiratory function. If a patient is experiencing respiratory distress or has impaired ventilatory ability, the skin may appear pale, cyanotic (bluish), or flushed, providing critical visual cues about their respiratory status. Other choices, while important in assessing a patient's overall condition, do not directly measure respiration. Heart rate can indicate the body's response to oxygen needs but does not reflect the effectiveness of the respiratory process itself. Blood pressure, similarly, provides insights into cardiovascular function rather than directly assessing respiratory efficiency. Temperature can indicate infection or other systemic issues but also does not relate specifically to respiratory function. Thus, skin color serves as a reliable visual cue that assists in quickly evaluating a patient's breathing status and overall oxygenation.

5. What is your first action when responding to a call for a possible suicide involving a locked basement?

A. Enter the basement immediately

B. Request police assistance before entering

C. Try to speak with the patient through the door

D. Call for backup EMS support

When responding to a call for a possible suicide, the safety of both the patient and the emergency responder is paramount. Requesting police assistance before entering is the appropriate first action in this situation for several reasons. Firstly, the situation could be unsafe for the EMT. Locked areas may indicate that the individual is in a distressing state that could lead to further self-harm or harm to others. Police can help ensure that the scene is secure and that any potential threats are neutralized. Secondly, police are trained to deal with crisis situations, including those involving potential suicide. They can assess the situation and determine if it is safe for medical personnel to proceed. Thirdly, approaching the individual without a plan or backup can escalate the situation, leading to further risk for everyone involved. By requesting assistance, the EMT is prioritizing both their own safety and the well-being of the patient. In this scenario, other options like entering the basement immediately or trying to speak through the door may lead to increased risk and worsen the situation, while calling for backup EMS support may not sufficiently address the potential dangers present. Thus, engaging law enforcement first is the most prudent and safest course of action.

6. How does compressing a pressure point on an extremity help control bleeding?

A. Stops circulation

B. Aids in controlling bleeding distal to the injury

C. Reduces swelling

D. Increases blood flow to the extremity

Compressing a pressure point on an extremity is effective in controlling bleeding distal to the injury because it helps to constrict or compress the blood vessels, which reduces blood flow to the area beyond the point of injury. This technique is particularly valuable in situations where direct pressure on the wound is not sufficient. By applying pressure at a point along the limb, typically over major arteries that supply blood to that part of the extremity, the flow of blood can be diminished. This approach is useful for managing external hemorrhage when there is an open wound. The reduction of blood flow past the point of compression helps to minimize the amount of blood loss and gives the body and the emergency medical responders the opportunity to address the injury more effectively. This strategy is part of a broader set of skills used to manage trauma and control bleeding in emergency situations.

7. How long should an adult patient be suctioned unless further suctioning is necessary?

A. 5 seconds

B. 10 seconds

C. 15 seconds

D. 20 seconds

In emergency medical situations, the recommended duration for suctioning an adult patient is a maximum of 15 seconds. This guideline is based on the need to minimize the risk of hypoxia, which can occur when the airway is obstructed. During suctioning, the patient is deprived of oxygen, so limiting the time spent suctioning to 15 seconds helps ensure that the patient can maintain adequate oxygen levels. When suctioning is performed, it's essential to use the time efficiently to clear the airway of secretions or obstructions while avoiding prolonged suctioning that could lead to adverse effects such as hypoxia, bradycardia, or trauma to the airway. After suctioning, it is advisable to provide supplemental oxygen if necessary and reassess the patient's airway and respiratory status before considering further suctioning if needed. This duration for suctioning aligns with national protocols and standards for emergency medical care, ensuring that providers are acting in the best interest of the patient's health.

8. What is the appropriate hand position for performing external cardiac compressions on a 4-year-old child?

A. Heel of one hand

B. Both hands together

C. Fingers interlocked

D. Flat palm

For a 4-year-old child, the appropriate hand position for performing external cardiac compressions is with the heel of one hand. This technique allows for effective compressions by focusing the force on the lower half of the sternum while minimizing the risk of injury to the child's fragile ribs. Using the heel of one hand provides adequate depth and allows the rescuer to maintain better control over the compression technique without excessive force being applied. In pediatric CPR, especially for younger children, it is essential to avoid using both hands together or interlocking fingers, as these methods are more suited for adults or larger children. The flat palm method is also less effective because it does not provide the proper pressure needed for effective circulatory support. Proper hand positioning ensures that the compressions are both effective and safe, adhering to pediatric resuscitation guidelines.

9. Which condition would likely require urgent care in a patient?

A. Mild headache

B. Severe chest pain

C. Fatigue

D. Minor cuts and scrapes

Severe chest pain is a critical condition that typically necessitates urgent care. This is because severe chest pain can be indicative of life-threatening problems, such as a heart attack, pulmonary embolism, or other serious cardiovascular issues. Immediate evaluation and intervention are often required to diagnose the underlying cause and to initiate appropriate treatment, which could be crucial for the patient's survival. In contrast, mild headaches, fatigue, and minor cuts and scrapes generally do not pose an immediate threat to the patient's life or require rapid intervention. These conditions may still warrant medical attention but are not considered urgent in the same way that severe chest pain is. Therefore, when assessing the urgency of medical conditions, severe chest pain stands out as a situation that demands quick action and professional evaluation.

10. What should an EMS provider do as part of body substance isolation precautions?

A. Wear protective goggles

B. Use gloves and masks appropriately

C. Disinfect equipment after use

D. All of the above

Body substance isolation (BSI) precautions are essential practices that EMS providers must follow to prevent the transmission of infectious diseases when dealing with patients. The correct answer encompasses the recommended measures that ensure both the safety of the provider and the mitigation of risk to patients. Wearing protective goggles is crucial because it protects the eyes from bodily fluids that could splash, thereby reducing the risk of exposure to infectious agents. Eye protection is a key component of personal protective equipment (PPE). Using gloves and masks appropriately is fundamental in body substance isolation procedures. Gloves serve as a barrier against direct contact with blood, body fluids, and other potentially infectious materials. Masks protect the EMS provider from inhaling airborne pathogens and from exposure during procedures that may generate droplets. Disinfecting equipment after use is equally important as it minimizes the chance of contamination and the spread of infections both to other patients and to healthcare providers. Proper cleaning protocols are vital for maintaining a safe environment in ambulances and other patient care settings. As such, the inclusion of all these actions underscores a comprehensive approach to BSI that enhances the safety and efficacy of medical response. Each of these precautions collectively contributes to a safer practice for EMS providers and the populations they serve.