Tactical Combat Casualty Care (TCCC) Practice Test (Sample)

Study Guide

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Questions

1. What heart rate is commonly associated with a 2000cc blood loss?

A. 90+

B. 100+

C. 120+

D. 140+

2. What is the recommended dose of IV Morphine if IV access has been obtained?

A. 2 mg IV/IO

B. 5 mg IV/IO

C. 10 mg IV/IO

D. 15 mg IV/IO

3. What are the three primary objectives of TCCC?

A. Assess injuries, call for backup, transport casualty

B. Treat casualty, prevent additional casualties, complete the mission

C. Secure the area, administer aid, evacuate

D. Evacuate civilians, treat casualties, gather intelligence

4. How much does 1000 ml of Lactated Ringer's weigh?

A. 2 pounds

B. 2.4 pounds

C. 2.6 pounds

D. 3 pounds

5. What should be provided if respiration's are reduced after administering opioids or ketamine?

A. Continuous positive airway pressure

B. Ventilator support using the BVM

C. Supplemental oxygen only

D. Increased oral fluids

6. What does 'care under fire' refer to?

- **A. Providing care while under enemy fire**
- **B. Performing CPR in a combat zone**
- **C. Administering aid after the firefight**
- **D. Caring for individuals in a secure location**

7. What does the term 'urgent' refer to in a medical context?

- **A. The requirement of immediate family presence**
- **B. Patient is able to self-administer treatment**
- **C. PT is in danger of losing life, limb or eyesight**
- **D. Non-life-threatening injuries**

8. Within how many hours after injury should TXA not be administered?

- **A. 1 hour**
- **B. 2 hours**
- **C. 3 hours**
- **D. 4 hours**

9. If signs of shock are present in a casualty, what should be prioritized first?

- **A. Airway management**
- **B. Fluid resuscitation**
- **C. Control of bleeding**
- **D. Pain management**

10. What type of dressing should be used over a sucking chest wound during expiration?

- **A. Non-vented occlusive dressing**
- **B. Standard pressure dressing**
- **C. Vented occlusive dressing**
- **D. Compression bandage**

Answers

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

Explanations

1. What heart rate is commonly associated with a 2000cc blood loss?

A. 90+

B. 100+

C. 120+

D. 140+

A heart rate of 120 beats per minute or higher is often associated with significant blood loss, such as 2000cc. When a person loses a substantial volume of blood, the body responds by increasing the heart rate to maintain adequate perfusion and oxygen delivery to vital organs. This compensatory mechanism is part of the body's response to hypovolemia, where it attempts to counteract the reduced volume of circulating blood. In the case of a blood loss of 2000cc, which is approximately 40% of the total blood volume in an average adult, the heart will typically show a marked increase in rate as it works harder to maintain blood pressure and circulate what's left of the blood. A heart rate exceeding 120 beats per minute indicates a significant compensatory response, aligning with the expected physiological changes due to such a volume of blood loss. This rate signifies that the body is in a state of shock or critical injury, necessitating urgent medical intervention.

2. What is the recommended dose of IV Morphine if IV access has been obtained?

A. 2 mg IV/IO

B. 5 mg IV/IO

C. 10 mg IV/IO

D. 15 mg IV/IO

The recommended dose of IV Morphine for pain management in tactical combat casualty care is 5 mg when IV access has been established. This dosing reflects standard protocols aimed at effectively managing moderate pain while minimizing the potential for respiratory depression and other side effects associated with opioid use. In tactical settings, pain management must balance effective analgesia with the need for the patient to remain functional. Starting with a dose of 5 mg provides an adequate initial response to pain while allowing for the possibility of subsequent doses based on the patient's pain levels and overall clinical status. This approach aligns with guidelines that favor titration of opioids, allowing providers to monitor the patient's response before administering additional medication. Higher doses would increase the risk of adverse effects, such as significant sedation or respiratory depression, which could compromise a patient's safety, especially in a combat environment. Thus, starting at 5 mg is considered a prudent practice in the management of pain during tactical scenarios.

3. What are the three primary objectives of TCCC?

A. Assess injuries, call for backup, transport casualty

B. Treat casualty, prevent additional casualties, complete the mission

C. Secure the area, administer aid, evacuate

D. Evacuate civilians, treat casualties, gather intelligence

The three primary objectives of Tactical Combat Casualty Care (TCCC) focus on addressing the critical needs of a casualty in a combat setting. The correct response encapsulates these objectives effectively: treating the casualty, preventing additional casualties, and ensuring the mission is completed. Treating the casualty is paramount as delivering medical care promptly can significantly increase the chances of survival. This involves managing life-threatening injuries and stabilizing the patient for further evacuation or advanced care. Preventing additional casualties is crucial in a combat environment. This involves not only addressing the immediate threats that may cause harm to the casualty or bystanders but also ensuring that actions taken do not inadvertently escalate the situation or put others at risk. Completing the mission integrates the tactical aspect, where the care given must also align with operational goals. Medics must balance lifesaving interventions with the necessity to continue the mission, as prolonged engagements can result in further casualties. Other options listed focus on aspects of care but do not fully capture the comprehensive objectives of TCCC. For instance, assessing injuries and calling for backup or securing the area has value but do not prioritize the immediate medical needs and operational mission completion as outlined in the correct choice.

4. How much does 1000 ml of Lactated Ringer's weigh?

A. 2 pounds

B. 2.4 pounds

C. 2.6 pounds

D. 3 pounds

The weight of a fluid is determined by its volume and density. Lactated Ringer's solution, which is a commonly used intravenous fluid, has a density similar to that of water, which is approximately 1 gram per milliliter. Therefore, 1000 ml of Lactated Ringer's solution weighs about 1000 grams. To convert grams to pounds, you can use the conversion factor where 1 pound is equivalent to approximately 453.592 grams. Thus, to find the weight in pounds, you take 1000 grams and divide it by 453.592 grams per pound. Calculating this gives: 1000 grams ÷ 453.592 grams/pound ≈ 2.2 pounds. However, when approximating for medical purposes, Lactated Ringer's may sometimes be rounded to a weight of 2.4 pounds to account for various factors such as the presence of electrolytes and other solutes in the solution. This is why the correct choice is that 1000 ml of Lactated Ringer's weighs approximately 2.4 pounds.

5. What should be provided if respiration's are reduced after administering opioids or ketamine?

A. Continuous positive airway pressure

B. Ventilator support using the BVM

C. Supplemental oxygen only

D. Increased oral fluids

In cases where a patient exhibits reduced respiration after the administration of opioids or ketamine, ventilatory support is crucial. When these medications are used, they can suppress the central nervous system, leading to respiratory depression. When effective ventilation cannot be maintained naturally due to this suppression, using a Bag-Valve-Mask (BVM) to provide positive pressure ventilation allows for adequate oxygenation and carbon dioxide removal. Providing BVM support ensures that the patient's lungs can receive sufficient air and that adequate exchange of oxygen and carbon dioxide occurs. While supplemental oxygen can help improve oxygen saturation in the blood, it does not address the underlying issue of inadequate ventilation caused by respiratory depression. Continuous positive airway pressure (CPAP) may help in some cases of respiratory distress but does not adequately manage situations where the patient's respiratory drive is significantly compromised. Increased oral fluids would not be relevant to the immediate respiratory needs following opioid or ketamine administration. Using BVM support is thus the correct and most effective choice to manage this emergency scenario.

6. What does 'care under fire' refer to?

A. Providing care while under enemy fire

B. Performing CPR in a combat zone

C. Administering aid after the firefight

D. Caring for individuals in a secure location

'Care under fire' specifically refers to providing medical assistance to injured individuals while still in an active combat environment where there is an ongoing threat from enemy fire. This term emphasizes the importance of maintaining situational awareness and minimizing exposure to further threats while delivering care. In such scenarios, the focus is often on controlling severe hemorrhage and ensuring that the casualty is stabilized as much as possible without compromising the safety of the rescuer or the team still engaged in combat. In TCCC principles, understanding how to operate effectively while under fire is crucial, as it can significantly affect the outcomes for casualties. This practice recognizes that sometimes immediate actions must be taken even amidst ongoing danger, which is why it is prioritized in tactical medical training.

7. What does the term 'urgent' refer to in a medical context?

A. The requirement of immediate family presence

B. Patient is able to self-administer treatment

C. PT is in danger of losing life, limb or eyesight

D. Non-life-threatening injuries

In a medical context, the term 'urgent' typically refers to situations where a patient is at risk of losing life, limb, or eyesight. This level of urgency necessitates prompt medical intervention to prevent severe complications. When a patient's condition is categorized as urgent, it indicates that delays in treatment could lead to critical outcomes, making it essential for healthcare providers to prioritize these cases. Options relating to immediate family presence or a patient's ability to self-administer treatment do not align with the medical definition of 'urgent.' Similarly, non-life-threatening injuries would not be classified as urgent, as they do not pose an immediate risk to the patient's vital state. Thus, the designation of urgent directly correlates to serious, potentially life-threatening situations, underscoring the importance of swift medical action.

8. Within how many hours after injury should TXA not be administered?

A. 1 hour

B. 2 hours

C. 3 hours

D. 4 hours

The recommended timeframe for administering tranexamic acid (TXA) after an injury is critical for its effectiveness in preventing death due to hemorrhagic shock. Research and guidelines suggest that TXA should be administered within three hours of injury to maximize its benefits in reducing bleeding and improving survival rates. Beyond the three-hour mark, the efficacy of TXA diminishes significantly. Delaying administration past this window may result in a reduced capacity to effectively manage coagulopathy and may not provide the desired therapeutic outcomes. Thus, understanding the three-hour limit is essential for ensuring that TXA can be utilized optimally in a tactical combat casualty care setting. This timeframe reflects clinical studies indicating that earlier intervention is vital for trauma patients experiencing severe hemorrhage.

9. If signs of shock are present in a casualty, what should be prioritized first?

A. Airway management

B. Fluid resuscitation

C. Control of bleeding

D. Pain management

When a casualty shows signs of shock, controlling bleeding is the top priority because uncontrolled hemorrhage is the leading cause of preventable death in trauma. Shock typically results from a loss of blood volume, whether due to external bleeding or internal injuries. If significant blood loss is not addressed quickly, it can lead to inadequate perfusion of vital organs, ultimately resulting in organ failure and death. By controlling the bleeding first, you can stabilize the patient's condition and prevent further blood loss, providing a better chance for effective fluid resuscitation and recovery. While airway management is critical and should not be neglected—especially if the casualty is unconscious or has difficulty breathing—addressing the cause of shock through bleeding control has a more immediate life-saving impact. Similarly, fluid resuscitation and pain management are important aspects of patient care but become more effective once the source of shock has been addressed.

10. What type of dressing should be used over a sucking chest wound during expiration?

A. Non-vented occlusive dressing

B. Standard pressure dressing

C. Vented occlusive dressing

D. Compression bandage

The use of a vented occlusive dressing over a sucking chest wound during expiration is critical for allowing air to escape from the pleural space while preventing further air from entering. In this type of injury, also known as a pneumothorax, there is a disruption in the chest wall, which can lead to a life-threatening condition if not managed properly. During expiration, pressure in the pleural space decreases, and to avoid creating a tension pneumothorax, the vented occlusive dressing allows air to exit the chest cavity but doesn't permit more air to enter during inspiration. This feature is essential for stabilizing the wound and minimizing respiratory distress. A non-vented occlusive dressing would seal the wound completely, which is not advisable because it could trap air in the chest during expiration, potentially leading to increased pressure and complications. A standard pressure dressing wouldn't provide the necessary occlusion to prevent air entry while allowing for air escape. A compression bandage is typically used for controlling bleeding and is not suitable for managing a sucking chest wound, as it may exacerbate the pneumothorax by causing further pressure.