Tactical Combat Casualty Care

for Medical Personnel 150603

Test Answer Key

1. Which of the following is a principle of TCCC?

a. Treat the casualty

b. Prevent additional casualties

c. Complete the mission

**d. All of the above**

2. Which of the following is NOT one of the three phases of care in TCCC?

a. Care Under Fire

b. Tactical Field Care

c. Tactical Evacuation Care

**d. Combat Life Saving Care**

3. The preferred analgesia regimen for someone who has wounds that are moderately painful but not life threatening and that do not keep him from functioning effectively as a combatant is:

a. Morphine IV

b. Morphine IM

**c. Mobic and Tylenol ER**

d. Aspirin

4. **True**/False

The most common cause of preventable death on the battlefield is the failure to use a tourniquet to control severe extremity bleeding.

5. The best battlefield indicators of shock during Tactical Field Care are:

a. Heart rate and face color

**b. State of consciousness and quality of the radial pulse**

c. Rapid heart rate

d. None of the above

6. True or **False**:

All combat casualties should have an IV started as soon as possible.

7. **True** or False:

A casualty has sustained a gunshot wound to the chest. He/she should be allowed to take fluids by mouth if able to.

8. **True** or False:

Administering large quantities of fluids to a casualty who has bleeding sites inside the chest or abdomen may worsen his or her hemorrhage by diluting clotting factors or by interfering with clot formation at the bleeding site.

9. **True** or False:

Antibiotics are recommended for all combat casualties who sustain open wounds.

10. Which of the following is NOT appropriate to the Care Under Fire phase?

**a. Starting an IV**

b. Controlling life-threatening extremity bleeding with a tourniquet

c. Returning fire as necessary

d. All of the above

11. To be most effective at preventing infections, moxifloxacin should be given when after wounding?

**a. As soon as possible**

b. Whenever

c. Within 4 hours

d. None of the above

12. What is the next step in airway management for a corpsman who has just used the chin-lift/jaw-thrust method to successfully open the airway of a casualty who is unconscious from a blast injury during the Tactical Field Care phase?

**a. Nasopharyngeal airway**

b. Surgical airway

c. Tracheal intubation

d. None of the above

13. As a corpsman you are confronted with the following three casualties. Which one should be cared for first?

a. Casualty A – shot in the head and unconscious

b. Casualty B – shot in the abdomen – awake and alert

**c. Casualty C – heavy bleeding from a thigh wound**

14. **True** or False:

The ideal management of a casualty in a combat setting is not necessarily the same as for the identical injury in a civilian setting.

15. True or **False:**

The Tactical Combat Casualty Care guidelines presented in this course should not be modified no matter what the tactical context in which the casualties occur is.

16. A casualty has suffered a gunshot wound to the chest. As you watch him, he is having more and more trouble with his breathing. What is the best next step?

a. Tracheal intubation

b. Put in a chest tube

**c. Needle decompression for a suspected tension pneumothorax**

17. A casualty has sustained a gunshot wound to the face. He is conscious and maintaining his airway by sitting up and leaning forward. A corpsman arrives on the scene. How should the casualty’s airway be managed?

a. Place him in the supine position and intubate him

**b. Allow him to continue to sit up and lean forward as care is rendered**

c. Perform a surgical airway

d. None of the above

18. What is the best quick check for an adequate airway?

**a. Ask a question that requires a response from the casualty**

b. Check for a bluish color of the nail beds

c. Determine the casualty’s respiratory rate

d. Auscultate the chest

19. The minimum amount of time in which a casualty could bleed to death from a femoral (thigh) wound with heavy bleeding is approximately:

**a. 3 minutes**

b. 10 minutes

c. 15 minutes

d. 30 minutes

20. True or **False**:

A casualty who has lost a liter of blood is in danger of dying from hemorrhagic shock.

21. What level of blood loss is likely to be associated with death from hemorrhagic shock?

a. 0.5 liters

b. 1.0 liter

c. 1.5 liters

**d. 2.5 liters**

e. None of the above

22. The preferred antibiotic in the Tactical Field Care phase is moxifloxacin. This medicine is preferred because it:

a. Is effective against most bacteria

b. Has a relatively mild side effect profile

c. Can be taken by mouth

d. Is inexpensive

**e. All of the above**

23. True or False:

Giving a rapid infusion of IV fluids to casualties with uncontrolled bleeding (such as casualties with wounds of the chest or abdomen) was shown to increase the mortality rate in the largest study done to date on this issue.

24. Which of the following three casualties has the greatest need for an emergent CASEVAC:

a. A casualty who stepped on a land mind and has a traumatic amputation of the leg at the knee with bleeding controlled by a tourniquet.

b. A casualty who was shot in the head and is unconscious with a significant amount of brain tissue exposed.

**c. A casualty who was shot in the abdomen and who now has an absent radial pulse.**

25. What is the most important thing to do after splinting an open fracture?

**a. Check to ensure that the pulses distal to the splint have not been reduced by the splint**

b. Check to ensure that the extremity is completely covered by wrapping material used in splinting

c. Check to ensure that the extremity is in perfect alignment

d. None of the above

26. Which of the following is a good reason NOT to give casualty morphine?

a. His wounds are minor and he can continue to fight

b. He is in shock

c. He has a chest wound and is in respiratory distress

**d. All of the above**

27. Which of the following is true?

**a. Extremity hemorrhage is the most frequent cause of *preventable* battlefield deaths**

b. Most combat fatalities die from airway problems

c. Life-threatening extremity bleeding is treated in the Care under Fire phase is treated with Combat Gauze

d. None of the above

28. You are treating a casualty with a gunshot wound to his lower jaw which severely disrupts the oropharyngeal anatomy. He suddenly develops complete airway obstruction, struggles briefly, and loses consciousness. What is the airway intervention of choice at this point?

a. Nasopharyngeal airway and recovery position

b. Endotracheal intubation

**c. Surgical airway**

d. Sit the casualty up and attempt two rescue breaths

29. After a brief skirmish with the enemy 10 minutes ago, your unit is holding temporarily in a secure area. During the firefight, you sustained a gunshot wound to your right thigh that produced heavy arterial bleeding. You initially controlled the hemorrhage by applying your own tourniquet. There are no other medics in your unit, and the CASEVAC helicopter will arrive at your location in one-half hour. The MTF is 10 minutes away by air. Which is the best strategy for dealing with the tourniquet on your leg?

a. Replace the tourniquet with a Combat Gauze dressing

b. Replace the tourniquet with WoundStat and direct pressure

c. Construct a pressure dressing over your leg wound, and remove the tourniquet yourself

**d. Leave the tourniquet in place**

30. Which of the following statements is true?

a. Casualties who are alert and can swallow should not be allowed to take fluids by mouth.

**b. The F.A.S.T.-1 intraosseous device is a good way to obtain vascular access for a casualty in whom an IV cannot be started.**

c. Pulse oximetry and other electronic monitoring are not useful during Tactical Evacuation Care in a helicopter.

d. All combat wounds produce severe pain.

31. Regarding the provision of care to hostile combatants, which of the following statements are true?

a. Wounded hostile combatants may still inflict deadly force on you and your unit.

b. No care is to be rendered until the wounded hostile combatant has dropped all weapons, indicated that he wishes to surrender, and been searched and secured by the unit prisoner handlers.

c. Once secure, the same care should be rendered to the POW as accorded U.S. and friendly forces.

**d. All of the above are true**

32. **True** or False:

Fluid resuscitation to treat shock is not considered a part of Care Under Fire.

33. **True** or False:

Moxifloxacin requires only once-a-day dosing.

34. Why is Hextend preferred over normal saline or Lactated Ringer’s for combat casualties who often have a prolonged delay to evacuation?

a. It’s cheaper

b. It’s made by Halliburton

**c. The intravascular volume expansion lasts much longer than that achieved with normal saline or Lactated Ringer’s**

d. None of the above

35. Which of the following is NOT part of the nine-line evacuation request?

a. Pick-up location

**b. Ages of the casualties**

c. Number of casualties to be evacuated

d. Special equipment required

36. Which of the following is NOT an advantage of fentanyl lozenges over morphine in the tactical setting?

a. No need to start an IV to administer

b. Works faster than IM morphine

**c. No potential for respiratory depression**

d. All of the above are true

37. One correct landmark for performing a needle decompression (on the side of the chest with the penetrating trauma) is:

**a. Second intercostal space, mid-clavicular line**

b. Second intercostal space, mid-axillary line

c. Fourth intercostal space, mid-clavicular line

d. Fourth intercostal space, mid-axillary line

38. In a tactical environment, the initial treatment of choice for stopping severe distal extremity hemorrhage is:

a. Direct pressure

b. Pressure point compression

c. A pressure dressing

**d. A tourniquet**

39. A Combat Gauze dressing is used for:

**a. Control of severe external bleeding**

b. Abdominal wounds without severe external bleeding

c. Open head wounds with minor bleeding and brain matter exposed

d. Control of minor superficial bleeding

40. You have a casualty with severe external bleeding from a groin wound during Tactical Field Care. Combat Gauze is unsuccessful at stopping the hemorrhage. What should you do next?

a. Stop and take a few minutes to think about it.

b. Revert to a standard gauze dressing to control bleeding.

**c. Use a second Combat Gauze on the bleeding site.**

d. Move on to the next casualty

41. **True** or False:

A casualty with a palpable radial pulse has a systolic blood pressure of approximately 80mmHg or higher.

42. Which is the best route for administering morphine to a battlefield casualty?

a. Intramuscular

b. Subcutaneous

**c. Intravenous**

d. Sublingual

43. After administering 500 ml of Hextend to an unconscious casualty, his mental status has not improved and his radial pulse remains absent. At this point you should:

a. Maintain a saline lock

**b. Administer a second 500 ml bolus of Hextend**

c. Administer a 1,000 ml bolus of Hextend

d. Administer 2,000 ml of Ringer’s Lactate at a wide-open rate

44. A casualty with a sucking chest wound has been treated with an occlusive dressing. She begins to have increasing difficulty breathing. You suspect a developing tension pneumothorax. Which of the following would not be a preferred first step to manage this condition in Tactical Field Care?

**a. Put in a chest tube**

b. Lift one side of the occlusive dressing to allow air to escape from the chest

c. Perform a needle decompression.

45. **True** or False:

Combat Gauze should be applied to the bleeding site with at least 3 minutes of direct pressure.

46. Which of the following is the preferred IV/IM antibiotic in TCCC?

a. Cefazolin

**b. Ertapenem**

c. Gentamicin

d. Penicillin

47. **True** or False:

Infection may be a leading cause of late morbidity in combat casualties when antibiotic administration is delayed.

48. Why is meloxicam (Mobic) preferred over other non-steroidal anti-inflammatory medications such as aspirin and ibuprofen?

a. It is more effective at relieving pain than aspirin and ibuprofen.

b. It is less expensive than aspirin and ibuprofen.

**c. It does not interfere with platelet function and increase your chance of bleeding to death if wounded - as aspirin and ibuprofen do.**

d. None of the above is true.

49. Why is prevention of hypothermia important in the management of combat casualties?

a. Shock interferes with the body’s ability to produce heat

b. Lack of heat production makes the casualty more susceptible to hypothermia

c. Hypothermia interferes with blood clotting and increases mortality in casualties with severe injuries

**d. All of the above are true**

50. **True** or False:

TCCC requires combat medical personnel to combine good medicine with good tactics on the battlefield.

51.  What is the main thing that you do not want to do for a casualty with a suspected penetrating eye injury?

a. Have him take moxifloxacin from his Combat Pill Pack as soon as possible.

**b. Apply an eye patch to keep gentle pressure on the injured globe.**

c. Put on his tactical eye protection.

d. Check his visual acuity.

52. What two hemostatic dressings have been recommended as backups to Combat Gauze?

a. Woundstat and Surgifoam

b. Arista and StatSeal

c. Quikclot and Bleed-X

**d. ChitoGauze and Celox Gauze**

53. Which analgesic agent is NOT part of the TCCC- recommended Triple-Option analgesia plan?

a. Meloxicam

**b. Morphine IM**

c. Oral transmucosal fentanyl citrate

d. Ketamine

54. **True** or False:

Opioid analgesics have the potential to decrease blood pressure and depress respirations thus making casualties in hypovolemic shock worse.

55. True or **False**:

Ketamine is known to decrease blood pressure and suppress laryngeal reflexes in casualties with hypovolemic shock thus making their condition worse.

56. What is the recommended initial dose of IM ketamine in TCCC?

**a. 50 mg**

b. 20 mg

c. 15 mg

d. 800 ug

57. What is the recommended initial dose of fentanyl lozenge in TCCC?

a. 50 mg

b. 80 mg

**c. 800 ug**

d. 650 mg

58. **True** or False:

Inadequate battlefield analgesia is associated with an increase in PTSD?

59. Which of the following occurrences can make TBI worse?

a. Hypovolemic shock

b. Hypothermia

c. Hypoxia

**d. All of the above**

60. Which of the following is an indicator of shock on the battlefield?

a. Systolic blood pressure less than 90 mm Hg

**b. Weak or absent radial pulse**

c. Loss of sensation in the hands and feet

d. Diaphoresis

61. What is the target blood pressure for a casualty WITHOUT associated TBI?

**a. 80-90 mm Hg**

b. 90 mm Hg or higher

c. Palpable carotid pulse

d. None of the above

62. What is the target blood pressure for a casualty WITH associated TBI?

a. 80-90 mm Hg

**b. 90 mm Hg or higher**

c. Palpable carotid pulse

d. None of the above

63. Which of the following is not a TCCC approved junctional tourniquet?

a. SJT

b. CRoC

c. JETT

**d. AAT**

64. As a combat medic, what is your first priority during Care Under Fire?

a. Ignore hostile fire to treat the casualty.

**b. Return fire and take cover.**

c. Remove the casualty from a burning vehicle.

d. Make sure the casualty has a patent airway.

65. Who is the best person to move a casualty to cover during Care Under Fire?

a. The medic because he knows how to protect the casualty’s cervical spine.

b. The aid-and-litter team.

c. A casualty should never be moved during Care Under Fire.

**d. The casualty herself.**

66. What is the number one medical treatment priority during Care Under Fire?

a. Protect the casualty from hostile fire

b. Have the casualty move himself to cover

**c. Control life-threatening bleeding**

d. Suppression of enemy fire

67. True or **False**:

A C.A.T. should be loosened for one minute every 30 minutes to prevent ischemic damage to the limb.

68. What is the correct treatment for pain caused by a tourniquet that is effectively controlling life-threatening bleeding?

a. Ice packs

**b. Analgesia as recommended in TCCC guidelines**

c. Periodically loosen the tourniquet to relieve limb ischemia

d. Splint the limb to which the tourniquet is applied

69. Why should hemostatic dressings be avoided during Care Under Fire?

a. They take up too much space in a corpsman’s ruck.

b. A C.A.T. can control any life-threatening bleeding.

**c. The minimum of three minutes of holding direct pressure on the dressing is a long time to be exposed to enemy fire.**

d. Assuring a patent airway is a greater priority than hemorrhage control during Care Under Fire.

70. During Care Under Fire, a device to stabilize the cervical spine should not be applied:

a. For penetrating neck trauma alone.

b. If the risk of the medic or the casualty being hit by enemy fire is greater than the risk of spinal cord injury due to movement with an unstable cervical spine.

c. Unless the casualty has sustained significant blunt trauma.

**d. All of the above.**

71. A nasopharyngeal airway is better than an oropharyngeal airway because:

a. It is less likely to cause gagging in a conscious casualty.

b. It is less likely to be dislodged.

**c. Both a. and b. are true.**

72. The best site to insert a needle to decompress a tension pneumothorax is:

a. The second ICS at the MCL

b. Just medial to the nipple on the injured side of the chest

c. The 4th or 5th ICS at the AAL

**d. Both a. and c. are acceptable sites.**

73. What is the best dressing to put over a sucking chest wound?

**a. A vented chest seal.**

b. An unvented chest seal.

c. Petrolatum gauze.

d. A sucking chest wound should not be covered because it may lead to tension pneumothorax.

74. Which statement about tourniquets is not true?

a. Damage to an arm or a leg is rare if the tourniquet is left on for less than two hours.

b. Tourniquets are often left in place for several hours during surgical procedures.

**c. Training tourniquets can be issued for use on missions if they have been used in training courses for less than six months.**

d. All unit members should have a tourniquet at a standard location on their battle gear.

75. Why would you consider not starting an IV during Tactical Field Care?

a. If a casualty has only minor wounds, he will not need fluid resuscitation or parenteral meds.

b. You can’t carry unlimited supplies, so IV fluids should be reserved for those casualties who seriously need them.

c. Starting an IV may critically delay tactical movement.

**d. All the above.**

76. Which of the following is a contraindication to the use of a FAST1?

a. The presence of hemorrhagic shock

**b. A sternal fracture**

c. Female casualty

d. Parenteral medications are needed urgently

77. Which of the following statements regarding TXA is not true?

**a. It promotes new clot formation.**

b. It prevents the breakdown of forming clots.

c. The survival benefit associated with TXA administration is greatest if it is given within one hour of injury.

d. A second dose should be given after initial fluid resuscitation is completed.

78. True or **False**:

In the resuscitation of a casualty with hemorrhagic shock, infusion of fluids takes precedence over hemorrhage control.

79. Which of the following factors does not cause inaccurate oxygen saturation values on pulse oximeters?

a. Hypovolemic shock

b. Hypothermia

c. Carbon monoxide poisoning

**d. High altitude**

80. True or **False**:

The presence of a suspected penetrating injury to the eye is an absolute contraindication to the use of ketamine.

81. **True** or False:

It is safe to give ketamine to a casualty who has previously received morphine or OTFC.

82. Which of the following statements about ketamine is not true?

**a. It presents no risk of respiratory depression.**

b. It stimulates cardiac function.

c. It has a very favorable safety profile.

d. It can be safely given to a casualty who was previously treated with OTFC.

83. Which of the following is not a clue to the presence of a closed fracture?

a. Trauma with significant pain and marked swelling

b. Different length of a limb compared to the contralateral

**c. Presence of bounding pulses distal to the injury**

d. Crepitus

84. Which of the following is not a reason to splint a fracture?

a. To protect blood vessels and nerves

b. To prevent further injury from the movement of sharp bone ends

c. To reduce pain

**d. To reduce the chance of wound infection**

85. Under what circumstance should you consider performing CPR during Tactical Field Care?

a. After you have performed bilateral needle decompressions to rule out tension pneumothorax.

**b. CPR should never be performed on the battlefield.**

c. The casualty has no obvious thoracic trauma.

d. The casualty has a high likelihood of survival.

86. True or **False**:

Only combat medical personnel should fill out the TCCC Casualty Card.

87. True or **False**:

Every intervention shown on the TCCC Casualty Card should be completed for each casualty.

88. Which statement about Casualty Collection Points in not correct?

**a. They should be located reasonably far away from the fighting.**

b. They should provide both cover and concealment.

c. They should have ready access to evacuation routes.

d. All the statements above are correct.

89. Using NATO/ISAF evacuation categories, which of the following casualties would not be categorized Urgent?

a. Shrapnel injury to the abdomen

b. High lower extremity amputation and pelvic injury from a dismounted IED attack

**c. Extremity injury with absent distal pulses**

d. Casualty with a tourniquet in place

90. **True** or False:

Soft tissue injuries are common and may look bad, but usually don’t kill unless associated with shock.

91. Which definition below is correct?

a. CASEVAC is using medical platforms to evacuate tactical casualties.

b. MEDEVAC is tactical platforms for medical evacuation missions.

c. En Route Care is casualty care rendered at translocation facilities.

**d. TACEVAC refers to evacuation of combat casualties by both dedicated medical platforms and tactical vehicles of opportunity.**

92. What is the primary difference between Tactical Field Care and Tactical Evacuation Care?

a. The guidelines are markedly different.

**b. Extra medical personnel and equipment may allow for a greater level of care in Tactical Evacuation Care.**

c. The difficulties involved in delivering medical care in a moving vehicle mean that a lesser level of care can be delivered in Tactical Evacuation Care.

d. There is no real difference.

93. Which of the following are concerns associated with increasing altitude during evacuation?

a. A casualty with a chest wound may develop tension pneumothorax.

b. Pulse oximeter readings will drop.

c. Air-filled cuffs on endotracheal tubes may expand enough to cause tissue damage.

**d. All the above.**

94. Some casualties may benefit from supplemental oxygen if it is available during Tactical Evacuation Care. Which of these casualties is not in that group?

a. A casualty with an abdominal wound who is in shock

b. An semi-conscious casualty with TBI

**c. A casualty with a below-knee amputation, normal mental status, bleeding controlled by a tourniquet**

d. A casualty with a bullet wound through his right chest, entrance and exit wounds covered by vented chest seals

95. During Tactical Evacuation Care, a casualty with TBI should be monitored for:

a. O2 saturation >90%

b. Systolic blood pressure >90 mm Hg

c. Decreasing level of consciousness

**d. All the above**

96. A casualty who has suffered a severe TBI may exhibit signs of cerebral herniation. If unilateral pupillary dilation occurs with a decreasing level of consciousness during Tactical Evacuation Care, all of the following should be performed except:

a. Hyperventilation with oxygen

b. Administer 250 cc of 3% or 5% hypertonic saline IV bolus

**c. Cool the casualty by removing the HPMK, and protective gear, and clothing**

d. Elevate the casualty’s head to 30 degrees

97. Under what circumstances would you consider performing CPR during Tactical Evacuation Care?

a. The casualty’s wounds are not obviously fatal and he will receive surgical care soon.

b. Performing CPR will not deny life-saving care to other casualties.

c. Performing CPR will not compromise the mission.

**d. All the above must be true.**

98. When should combat medical personnel provide care to wounded hostile combatants?

a. Never

**b. When they have surrendered and other members of the unit have taken actions to assure they no longer represent a threat**

c. After care to the unit’s wounded is completed

d. Once they reach a POW Collection Point

99. Indications for NOT removing a tourniquet include all of the following except:

a. The tourniquet has been on for more than six hours

b. The casualty will receive surgical care within two hours of the tourniquet’s application

**c. The casualty’s vital signs remain normal three hours after the tourniquet was applied**

d. The extremity distal to the tourniquet has been traumatically amputated

100. True or **False**:

Direct pressure is a proven practical and effective way to maintain control of heavy bleeding while moving a casualty.

101. During Care Under Fire when the casualty and the medic are under effective hostile fire, the best location to apply a limb tourniquet when the most proximal source of bleeding is not readily visible is:

a. Three inches above the most proximal blood stain on the casualty’s uniform.

**b. Over the casualty’s uniform as high on the injured limb as possible.**

c. Two to three inches above the most proximal wound you can find after cutting the casualty’s uniform away to expose the entire injured limb.

d. Two to three inches above the joint that is immediately proximal to the blood on the casualty’s uniform, if it is possible to apply a limb tourniquet there.

102. The phrase “tourniquet conversion” refers to:

a. Removing a limb tourniquet after surgical control of hemorrhage has been achieved.

b. Removing a limb tourniquet that was erroneously placed on an unwounded limb.

c. Periodically loosening a limb tourniquet to prevent strangulation of the limb and compartment syndrome.

**d. Transitioning from control of hemorrhage by a limb tourniquet to control of hemorrhage by a hemostatic dressing and a pressure dressing.**

103. The following statements are true EXCEPT:

a. When properly applied, a limb tourniquet will stop bleeding from distal wounds and eliminate distal pulses.

b. If a limb tourniquet is not applied tightly enough, it may occlude venous return but not arterial flow into the limb distally leading to compartment syndrome.

**c. Once a limb tourniquet has been applied tightly enough to stop bleeding and eliminate distal pulses, re-bleeding from distal wounds is uncommon.**

d. You can apply a second limb tourniquet side-by-side with the first if the first fails to stop bleeding and eliminate pulses.

104. Which of the following is NOT an indication that a limb tourniquet should be converted as soon as possible?

a. The tourniquet is not placed above an amputation.

b. The casualty is not in shock.

c. You are able to monitor the wound closely for re-bleeding.

**d. The tourniquet has been in place for seven hours and the Combat Support Hospital is one hour away.**

105. Which of the following is not a reason why ondansetron was selected to replace promethazine for the treatment of nausea and vomiting in combat trauma victims?

a. Ondansetron has been used safely and effectively in combat theaters.

b. Ondansetron is frequently used as the antiemetic of choice in civilian prehospital trauma care.

**c. The side effects profile of ondansetron is about the same as that of promethazine.**

d. Ondansetron carries no FDA Black Box warnings.

106. Which of the following statements is incorrect?

**a. Ondansetron Oral Disintegrating Tablet works almost as quickly as the oral (PO) tablet.**

b. Ondansetron does not cause hypotension.

c. Ondansetron, in the doses recommended, is unlikely to cause sedation.

d. The antiemetic effect of ondansetron is just as strong as that of promethazine.

107. Which of the following is the preferred option for cricothyroidotomy?

a. Bougie-aided open surgical technique.

b. Standard open surgical technique.

**c. Cric-Key technique.**

d. Needle cricothyroidotomy with percutaneous transtracheal ventilation.

108. Advantages of the Cric-Key technique for cricothyroidotomy include all except:

a. The rounded, anterior-facing tip of the Cric-Key allows you to feel the tracheal rings as it slides over them.

b. If the Cric-Key is inserted under the skin overlying the trachea, the tip will produce visible tenting of the skin in front of the neck.

c. The Melker airway is flanged, and therefore unlikely to disappear down the casualty’s trachea.

**d. The Cric-Key eliminates the need to make an incision through the cricothyroid membrane.**