Advanced Assessment and Treatment of Trauma  
Final Exam Version 1

1. In which of the following scenarios would the potential for serious injury or death be the GREATEST?  
   A. 77-kg (170-lb) man who falls 1.2 m (4') from a step ladder  
   B. 73-kg (160-lb) woman whose vehicle strikes a tree at 80 km/h (50 mph)  
   C. 64-kg (140-lb) woman who rear-ends another vehicle at 64 km/h (40 mph)  
   D. 68-kg (150-lb) man whose car strikes a bridge pillar at 97 km/h (60 mph)

2. You are dispatched to a motorcycle accident in which the rider struck the rear end of a parked car while traveling approximately 56 km/h (35 mph). He was wearing a helmet and protective clothing. Based on the mechanism of injury, which of the following injuries should you suspect?  
   A. Femur fractures and cervical spine injury  
   B. Head injury and bilateral hip dislocations  
   C. Direct crush injury to the lower extremities  
   D. C-spine injury and penetrating chest trauma

3. In addition to the initial assessment and spinal immobilization, which of the following would be the MOST appropriate to perform or obtain on a critically injured patient while you are still at the scene?  
   A. Baseline vital signs  
   B. Detailed physical exam  
   C. Rapid trauma assessment  
   D. IV therapy and fluid boluses

4. A young man has severe facial trauma after being attacked by a rival gang. He is unconscious, his face is swollen and covered with blood, he has sonorous respirations, and his breathing is slow and irregular. You should:  
   A. carefully turn him on his side as a unit and suction his oropharynx.  
   B. manually stabilize his head and open his airway with the jaw-thrust.  
   C. intubate his trachea immediately and ventilate him at 24 breaths/min.  
   D. apply a cervical collar and administer oxygen via nonrebreathing mask.

5. A patient with multiple systems trauma, who is immobilized on a long backboard, suddenly begins vomiting. Your MOST appropriate initial action should be to:  
   A. suction his oropharynx with a rigid suction catheter.  
   B. administer sedation and a paralytic and intubate him.  
   C. sweep solid material from his mouth with your finger.  
   D. turn the backboard to the side to allow vomitus to drain.

6. Which of the following patient presentations would MOST likely require an airway adjunct to assist in keeping the airway open?  
   A. Glasgow Coma Scale score less than 12  
   B. Respiratory rate less than 12 breaths/min  
   C. Severe hypoxia despite high-flow oxygen  
   D. Amnesia following a closed head injury
7. You have intubated an unresponsive patient with severe hypotension. Proper tube placement has been confirmed and you are ventilating 12 times per minute. The capnography display reads 18 mm Hg. Which of the following is the MOST likely cause of this?
   A. It is likely that the patient ingested a carbonated beverage within the past few hours.
   B. The patient’s hypoperfused state is causing decreased carbon dioxide transfer to the lungs.
   C. You are ventilating too slowly and should increase the rate to 24 breaths/min.
   D. You are ventilating too fast and should decrease the rate to 6 breaths/min.

8. You are treating a patient with a large arterial laceration to a part of the body that is too proximal to apply a tourniquet. Despite direct pressure, the wound continues to bleed heavily. Which of the following interventions will afford the patient the greatest chance for survival?
   A. Two large-bore IV lines and a 2-liter bolus of normal saline
   B. Rapid transport with continued attempts to control the bleeding
   C. Elevating his lower extremities and administering high-flow oxygen
   D. An inotropic drug such as dopamine to maintain adequate perfusion

9. Which of the following assessment parameters is MOST reliable when determining if a shock patient's condition is deteriorating?
   A. Blood pressure
   B. Skin condition
   C. Mental status
   D. Heart rate

10. You are transporting a patient with blunt abdominal trauma. He is conscious and alert with a blood pressure of 94/64 mm Hg, a heart rate of 110 beats/min, and respirations of 22 breaths/min. A large-bore IV is in place and oxygen is being given. Further treatment should include:
    A. a second large-bore IV line and sequential IV fluid boluses of an isotonic crystalloid solution.
    B. close monitoring of his mental status and withholding IV fluids unless he becomes unresponsive.
    C. assisted ventilation with a bag-mask device and running the IV wide open until his heart rate decreases.
    D. IV fluids to maintain a systolic BP of 90 mm Hg, monitoring of his mental status, and thermal management.

11. A man was struck in the face with a steel pipe. He is unconscious, is bleeding from the mouth and nose, and has severe facial swelling. After manually stabilizing his c-spine and opening his airway, you should:
    A. inspect the mouth for foreign bodies and use suction as needed to remove any blood or secretions.
    B. insert an oropharyngeal airway, apply a cervical collar, and apply oxygen via a nonrebreathing mask.
    C. preoxygenate him with high-flow oxygen for 2 to 3 minutes and then perform rapid-sequence intubation.
    D. carefully insert a nasopharyngeal airway, assess his breathing adequacy, and intervene appropriately.

12. In contrast to a subdural hematoma, an epidural hematoma:
    A. often does not produce symptoms for up to a week after the injury.
    B. is associated with arterial bleeding and rapidly progressing symptoms.
    C. is an accumulation of blood beneath the dura mater but outside the brain.
    D. results from rupture of the veins that bridge the cerebral cortex and dura.
13. A head-injured patient opens her eyes in response to pain, answers your questions with inappropriate words, and withdraws from pain. Her Glasgow Coma Scale score is _____. which indicates a __________ traumatic brain injury.
A. 8, severe
B. 9, moderate
C. 10, moderate
D. 13, mild

14. A woman experienced blunt head trauma and is semiconscious. Her respirations are 6 breaths/min and irregular, heart rate is 50 beats/min and bounding, and blood pressure is 80/50 mm Hg. In addition to protecting her spine, you should:
A. hyperventilate her with a bag-mask device at a rate of 20 breaths/min, restrict IV fluid boluses to avoid worsening intracranial pressure, elevate the head of the backboard, and transport without delay.
B. apply oxygen via nonrebreathing mask, keep her warm with blankets, administer a 2-liter bolus of an isotonic crystalloid solution, monitor end-tidal CO₂ and pulse oximetry, and transport at once.
C. administer high-flow oxygen via nonrebreathing mask, elevate the head of the backboard 30° to reduce intracranial pressure, give a 20 mL/kg crystalloid fluid bolus, and transport to a trauma center.
D. ventilate her with a bag-mask device at 10 breaths/min, administer crystalloid fluid boluses to maintain a systolic BP of 90 mm Hg, monitor end-tidal CO₂ and pulse oximetry, and transport without delay.

15. Following blunt trauma to the anterior chest, a man presents with paradoxical chest wall movement, respiratory distress, shallow respirations, and a decreased level of consciousness. His oxygen saturation reads 85%. You should:
A. tightly secure a bandage around his chest wall and apply oxygen via nonrebreathing mask.
B. perform immediate endotracheal intubation and circumferentially wrap his chest to stabilize the injury.
C. assist his ventilations with a bag-mask device and stabilize the chest injury with a bulky dressing.
D. decompress the right side of his chest with a large-bore IV catheter and apply oxygen via nonrebreathing mask.

16. A man was stabbed in the left anterior chest. He presents with signs of shock; rapid, shallow breathing; and jugular venous distention. His breath sounds are clear and equal bilaterally. He MOST likely has a:
A. cardiac tamponade.
B. tension pneumothorax.
C. massive hemothorax.
D. ruptured myocardium.

17. Which of the following clinical presentations indicates the need for immediate chest decompression?
A. Tachycardia and hypotension, normal heart tones, tachypnea, and paradoxical chest wall movement
B. Normal heart tones, flat jugular veins, respiratory distress, severe shock, and unilaterally absent breath sounds
C. Jugular venous distention, labored breathing, unilaterally absent breath sounds, and signs of shock
D. Pulsus paradoxus, jugular venous distention, bilaterally diminished breath sounds, tachycardia, and distant heart tones
18. A man has severe pain and deformity to his left forearm following direct blunt trauma. He is conscious and alert; your assessment reveals no other injuries; and distal pulse, sensory, and motor functions are intact. His blood pressure is 144/84 mm Hg, heart rate is 120 beats/min and strong, and respirations are 22 breaths/min and adequate. Treatment should include:
   A. administering analgesia, transporting to the hospital, and applying a splint en route.
   B. applying a splint, transporting to the hospital, and providing emotional support en route.
   C. applying an air splint, transporting to the hospital, and administering analgesia en route.
   D. administering analgesia and applying an appropriate splint before transporting to the hospital.

19. A woman was just rescued by fire fighters from her burning house, where she was found trapped under a stairwell that collapsed on her. She has extensive partial- and full-thickness burns. She is conscious, but confused, and is in severe pain. Her blood pressure is 70/50 mm Hg and her heart rate is 130 beats/min and weak. Which of the following statements regarding this scenario is MOST correct?
   A. After covering her burns, you should administer IV analgesia.
   B. You should suspect a secondary injury that is causing her shock.
   C. A 1-liter normal saline bolus should be administered prior to transport.
   D. She is experiencing burn shock secondary to an intravascular fluid shift.

20. Which of the following equals 45% body surface area burns in an adult?
   A. Anterior legs, anterior abdomen
   B. Head, anterior torso, both arms
   C. Anterior chest, both anterior arms
   D. Head, face, front and back of both arms

21. Three people were struck by lightning. The first patient, a 41-year-old man, is unconscious, apneic, and pulseless. The second patient, a 39-year-old woman, is conscious but confused and has blood draining from both ears. The third patient, a 12-year-old boy, is conscious and alert and has a fractured wrist. You should:
   A. begin CPR on the 41-year-old man and call for a second ambulance to care for the other two patients.
   B. recall that lightning typically causes irreversible asystole and focus your care on the living patients.
   C. call for a second ambulance and then treat the 39-year-old woman first because she likely has head trauma.
   D. perform CPR on the 41-year-old man but cease resuscitation if he does not respond within 5 minutes.

22. In contrast to classic heat stroke, exertional heat stroke:
   A. most commonly affects the very young and the very old.
   B. develops over a period of several days in a hot environment.
   C. presents acutely and is often associated with hot, moist skin.
   D. has a higher survival rate, even if emergency care is delayed.

23. You are transporting a young woman who is immobilized on a backboard. She was injured in a car crash and is 35 weeks pregnant. Reassessment reveals that she is pale and diaphoretic and her heart rate has markedly increased. Your initial action should be to:
   A. assess her blood pressure.
   B. start an IV and give a fluid bolus.
   C. elevate the foot end of the backboard.
   D. tilt the backboard slightly to the left.
24. A 2-year-old boy fell from a one-story balcony and is unconscious. Based on the mechanism of injury, you should suspect:
   A. multiple long bone fractures.
   B. brain injury and possible shock.
   C. fractures to the pelvis and lumbar spine.
   D. shock due to intrathoracic hemorrhage.

25. You are triaging patients at the scene of a mass-casualty incident. The first patient you encounter is unconscious and breathing shallowly. You should:
   A. assign a “deceased” category.
   B. begin immediate, aggressive airway care.
   C. check for the presence of a carotid pulse.
   D. assign a red tag and move to the next patient.