

1. What is the key to a high-performance trauma team?
 - a. Individual goals
Rationale: Effective teams are dynamic and interdependent (p. 5).
 - b. Use of TeamSTEPPS
Rationale: Team performance is supported by the application of standardized, evidence-based communication tools and practices. TeamSTEPPS addresses one of the key elements for effective team performance (p. 5).
 - c. Identification of a single decision maker
Rationale: Effective trauma teams are dynamic, interdependent, and move toward a common goal (p. 5).
 - d. **Effective communication**
Rationale: Skilled communication, cooperation, and coordination are the cornerstones of high-performance teams and high-quality trauma care (p. 5).

2. When obtaining a history for an injured patient, understanding the kinematic concepts associated with the mechanism of injury and energy transfer can initially assist the trauma provider in:
 - a. **Evaluating and anticipating the types of injury that may be present**
Rationale: Mechanism of injury and energy transfer can assist the provider in evaluating and anticipating damage (p. 23).
 - b. Deciding whether law enforcement should be notified
Rationale: Various aspects of the history of the traumatic event may help determine the need for law enforcement, but mechanism of injury and energy transfer assist the provider in evaluating and anticipating damage (p. 23).
 - c. Determining needed laboratory tests
Rationale: Mechanism of injury and energy transfer can assist the provider in evaluating and anticipating damage, which in turn help direct the need for laboratory tests (p. 23).
 - d. Predicting the need for a surgical procedure
Rationale: Mechanism of injury and energy transfer can assist the provider in evaluating and anticipating damage, which in turn help direct the need for surgical procedures (p. 23).

3. The major preventable cause of death in the trauma patient is:
 - a. Airway compromise
Rationale: Uncontrolled hemorrhage is the major cause of preventable death after injury, not airway compromise (p. 29).
 - b. Ineffective ventilation
Rationale: Uncontrolled hemorrhage is the major cause of preventable death after injury, not ineffective ventilation (p. 29).
 - c. Secondary head injury
Rationale: Uncontrolled hemorrhage is the major cause of preventable death after injury, not secondary head injury (p. 29).
 - d. **Uncontrolled hemorrhage**
Rationale: Uncontrolled hemorrhage is the major cause of preventable death after injury, so assessment to identify uncontrolled hemorrhage is key to the initial assessment process (p. 29).

4. The across-the-room observation step in the initial assessment provides the opportunity to:
- Assess for uncontrolled internal hemorrhage
Rationale: The across-the-room observation is done to identify uncontrolled external hemorrhage, not internal hemorrhage (p. 28).
 - Accurately triage the patient
Rationale: The across-the-room observation is done to identify uncontrolled external hemorrhage. It does not affect triage (p. 28).
 - Reprioritize circulation before airway or breathing.**
Rationale: The across-the-room observation is done at the beginning of the primary survey to rapidly assess the need to reprioritize circulation before airway or breathing. This is done if uncontrolled external hemorrhage is identified (p. 28).
 - Activate the trauma team
Rationale: The trauma team is activated before arrival of the patient (p. 26).
5. Which of the following accurately describes ventilation principles associated with a bag-mask device?
- Ventilate at a rate of 10 to 12 breaths/minute**
Rationale: If ventilation is ineffective, assist ventilations at 10 to 12 breaths/minute or one every 5 to 6 seconds (p. 32).
 - Deliver 100% oxygen
Rationale: Delivery of oxygen is helpful for improving oxygenation, not for ventilation (p. 44).
 - Compress the bag-mask device completely
Rationale: Squeeze the bag just enough to produce visible chest rise every 5 to 6 seconds (10 to 12 breaths per minute, p. 54).
 - Maintain the oxygen saturation level between 92% and 94%
Rationale: Delivery of oxygen is helpful for improving oxygenation, not for ventilation. Additionally, oxygen saturation of 94% or higher is associated with effective, adequate oxygenation (p. 32).
6. Which of the following is the best measure of the adequacy of cellular perfusion and helps to predict the outcome of resuscitation?
- End-tidal carbon dioxide
Rationale: Carbon dioxide measurement is the end-product of ventilation and a reflection of metabolism and pulmonary function. In order to measure cellular perfusion, base deficit in conjunction with serum lactate is the best measure (p. 59).
 - Hypoxia
Rationale: Hypoxia is associated with poor cellular perfusion, and the best method of determining cellular hypoxia is with a base deficit in conjunction with serum lactate (pp. 51 and 58).
 - Base deficit**
Rationale: Base deficit serves as an endpoint measurement of the adequacy of cellular perfusion and when used in conjunction with serum lactate helps predict the success of the resuscitation (p. 57).
 - Oxygen saturation
Rationale: Oxygen saturation is valuable for measuring the trend in oxygenation within the bloodstream but does not reflect cellular perfusion (pp. 51 and 58).

7. What is a safe pharmacological alternative to opioids for rib fracture pain management in the anticoagulated patient?
- Corticosteroids
Rationale: Corticosteroids may enhance the effect of some anticoagulants and increase bleeding risk.
 - Intercostal nerve blocks**
Rationale: Continuous intercostal nerve blocks use long-acting anesthetics and can provide safe and effective pain management for the anticoagulated patient (pp. 271, 273).
 - Nonsteroidal anti-inflammatory drugs
Rationale: Nonsteroidal anti-inflammatory drugs may enhance the effect of some anticoagulants and increase bleeding risk.
 - Epidural anesthetics
Rationale: Anticoagulated patients are at risk for developing a spinal epidural hematoma from epidural medication administration.
8. In a patient with severe traumatic brain injury, hypocapnia causes:
- Respiratory acidosis
Rationale: Hypercapnia from inadequate ventilation, not hypocapnia, causes respiratory acidosis (p. 389).
 - Metabolic acidosis
Rationale: Metabolic acidosis results from tissue hypoperfusion and oxygen deficit, not hypocapnia (p. 389).
 - Neurogenic shock
Rationale: Neurogenic shock is associated with spinal cord injuries and results in generalized vasodilation. Hypocapnia causes vasoconstriction (pp. 98, 172).
 - Cerebral vasoconstriction**
Rationale: Hypocapnia, or low levels of carbon dioxide, will cause vasoconstriction, especially in the cerebral vasculature (p. 98).
9. A patient with a knife injury to the neck has an intact airway and is hemodynamically stable. He complains of difficulty swallowing and speaking. Further assessment is indicated next for which of the following conditions?
- Damage to the spinal cord**
Rationale: Penetrating neck trauma may include concurrent injuries to the spinal cord, airway, or vascular neck structures. With an intact airway and hemodynamic stability, the other common concurrent injury is to the spinal cord (pp. 124, 126).
 - An expanding pneumothorax
Rationale: Pneumothorax is less likely because of anatomic position (pp. 124, 126).
 - Laceration of the carotid artery
Rationale: With hemodynamic stability, carotid laceration is unlikely (pp. 124, 126).
 - Injury to the thyroid gland
Rationale: Thyroid gland injury is possible given the anatomy, but a spinal cord injury is a higher priority (pp. 124, 126).

10. What is the appropriate technique for palpating the pelvis for stability?
- Apply gentle pressure over the iliac crests downward and laterally
Rationale: To assess for pelvic instability, gentle pressure is applied over the iliac crests downward and medially, not laterally (p. 149).
 - Apply gentle pressure over the iliac crests downward and medially**
Rationale: To assess for pelvic instability, gentle pressure is applied over the iliac crests downward and medially (p. 149).
 - Apply firm pressure over the iliac crests downward and laterally
Rationale: To assess for pelvic instability gentle, not firm, pressure is applied over the iliac crests downward and medially, not laterally (p. 149).
 - Apply firm pressure over the iliac crests downward and medially
Rationale: To assess for pelvic instability gentle, not firm, pressure is applied over the iliac crests downward and medially (p. 149).
11. A patient with a spinal cord injury at C5 is being cared for in the emergency department while awaiting transport to a trauma center. Which of the following represents the highest priority for ongoing assessment and management?
- Maintain adequate respiratory status**
Rationale: Spinal cord injuries at C3 to C5 can cause the loss of phrenic nerve function, resulting in a paralyzed diaphragm and inability to breathe (p. 173, 179).
 - Administer balanced resuscitation fluid
Rationale: Fluid resuscitation is administered with care in neurogenic shock to avoid the risk of fluid overload. Respiratory function is a higher priority (p. 179, 183).
 - Perform serial assessments of neurologic function
Rationale: Neurologic function may change, and noting trends in any changes is important. However, respiratory function is the highest priority (p. 179).
 - Maintain core temperature
Rationale: To avoid hypothermia, maintaining the patient's core temperature may be necessary, but respiratory function is the highest priority (p. 179).
12. Based on proper bleeding control techniques, what is the first step to stop the bleeding of a penetrating injury to the lower extremity?
- Elevate the extremity to the level of the heart
Rationale: Elevation of the residual limb TO the level of the heart is an intervention when compartment syndrome is suspected. The proper bleeding control technique is elevation of the extremity ABOVE the level of the heart.
 - Initiate direct pressure**
Rationale: The first step in controlling any bleeding is direct pressure. If that is not adequate, the application of a tourniquet may be needed (p. 201-204).
 - Apply a tourniquet
Rationale: If direct pressure and elevation fail to control the bleeding, the application of a tourniquet may be needed. However, applying direct pressure is the first step in controlling bleeding (p. 202).
 - Cover the open wound with sterile saline dressings
Rationale: Covering the open wound may minimize infection. However, the first step to proper bleeding control is to apply direct pressure (p. 204).

13. Treatment for frostbite includes:
- Warm the affected part slowly over 30 to 60 minutes
Rationale: Warming for frostbite is done rapidly, over 15 to 30 minutes (p. 214).
 - Use gentle friction to improve circulation
Rationale: Friction, even gentle friction, is avoided to prevent tissue damage (p. 214).
 - Administer tissue plasminogen activator**
Rationale: With frostbite, thrombus formation is a risk. Tissue plasminogen activator or nonsteroidal anti-inflammatory medication can be administered (p. 215). Tissue plasminogen activator has been effective in maintaining perfusion and decreasing the need for amputation when administered within 24 hours of rewarming (p. 215).
 - Leave blisters intact
Rationale: For blisters associated with frostbite, extract the fluid from clear blisters and keep hemorrhagic blisters intact (p. 214).
14. A 30-week pregnant trauma patient's vital signs include a blood pressure of 94/62 mm Hg and a heart rate of 108 beats/minute. Fetal heart tones are 124 beats/minute. The emergency nurse interprets the patient's hemodynamic findings as an indication of which of the following?
- Decompensated shock
Rationale: These values represent normal vital signs in the pregnant patient (p. 294).
 - Normal vital signs in pregnancy**
Rationale: In pregnancy, the resting heart rate increases by 10 to 20 beats/minute and a small decrease in systolic blood pressure and a larger decrease in diastolic blood pressure due to a decrease in peripheral resistance (p. 294). Normal fetal heart rate is between 120 and 160 beats/minute (p. 297).
 - Abruptio placentae
Rationale: These values represent normal vital signs in the pregnant patient (pp. 294, 296).
 - Supine hypotension syndrome
Rationale: These values represent normal vital signs in the pregnant patient (pp. 294, 296).
15. While performing an assessment on a 13-month-old involved in a motor vehicle collision, the nurse identifies which of the following findings from the patient as a potential sign of mental status changes?
- Sunken fontanel
Rationale: Infants and toddlers have unfused cranial sutures and open fontanels that enable expansion until approximately 18 months of age. A bulging fontanel is often a sign of intracranial bleeding, which may cause mental status changes (pp. 238).
 - Crying, but consolable
Rationale: It can be difficult to accurately assess the crying child. Look for signs of altered level of consciousness and inconsolability in the young child (p. 235).
 - Hyperglycemia
Rationale: The metabolic demands of children are higher than those of adults, and glycogen stores in the pediatric liver can be limited. Physiologic stress may rapidly deplete glycogen stores, resulting in hypoglycemia and causing decreased cardiac contractility, alteration in the level of consciousness, seizures, and acidosis (p. 240).
 - Cooperation with the assessment**
Rationale: An alert older infant or toddler will recognize his or her caregiver, be cautious of strangers, and may not respond to commands, which is a normal response (p. 235).

16. What is the best position for maintaining an open airway in the bariatric patient?
- Prone
Rationale: The reverse Trendelenburg position, not the prone position, will benefit both airway maintenance and work of breathing in the bariatric patient (p. 285).
 - Supine
Rationale: In the supine position, the chest and diaphragm can become obstructed due to excess abdominal mass, hindering effective ventilation. The reverse Trendelenburg position, not the supine position, will benefit both airway maintenance and work of breathing in the bariatric patient (p. 281, 285).
 - Reverse Trendelenburg**
Rationale: The reverse Trendelenburg position will benefit both airway maintenance and work of breathing in the bariatric patient (p. 285).
 - Right lateral recumbent
Rationale: The reverse Trendelenburg position, not the prone position, will benefit both airway maintenance and work of breathing in the bariatric patient (p. 285).
17. The nurse is obtaining a history for a patient who presents following sexual assault. This history is completed using which of the following techniques?
- Bring the family in to the interview room
Rationale: Use a safe, private room for the primary patient consultation and initial law enforcement interviews. Offer a waiting area for family and friends and provide childcare if possible. (p. 314).
 - Use direct quotes to record information**
Rationale: History includes a detailed description of the incident that is objective, using direct quotes (p. 314).
 - Obtain information specific to the assault, not what happened afterward
Rationale: Activities by the victim following the incident, such as bathing or showering, wound care, drinking, urination and defecation, and/or changing of clothes is important to obtain (p. 314).
 - Provide food and drink before creating a rapport
Rationale: Food and drink may be important, but if evidence is needed from the mouth, eating or drinking is delayed until after the history is obtained (p. 314).
18. A trauma nurse cared for a child with devastating burns two weeks ago. She called in sick for a couple of days and is now back working on the team. Which of the following behaviors would indicate this nurse is coping well?
- She is talking about taking the emergency nursing certification examination**
Rationale: This is an indication she is taking positive steps to advance her own practice, a sign of resilience (p. 338).
 - She keeps requesting to be assigned to the walk-in/ambulatory area
Rationale: This indicates she is still not ready to return to her previous engagement in her job (p. 335).
 - She is impatient and snaps at coworkers
Rationale: Irritability and frustration are ongoing signs of burnout (p. 335).
 - She is thinking about transferring out of the emergency department
Rationale: Decreased satisfaction with her job is a sign of burnout (p. 335).

19. Following a bomb explosion, fragmentation injuries from the bomb or objects in the environment are examples of which phase of injury?
- Primary
Rationale: The primary phase of a blast results from impact of the over and under pressurization wave with body surfaces. Injuries include blast lung, tympanic membrane rupture, abdominal hemorrhage, globe rupture, and mild traumatic brain injury (p. 20).
 - Secondary**
Rationale: The secondary phase of a blast results from flying debris, projectiles, and bomb fragments causing lacerations or penetrating injuries (p. 20).
 - Tertiary
Rationale: The tertiary phase of a blast results from individuals being thrown by the blast and impacting walls, ground, or any hard object (p. 21).
 - Quaternary
Rationale: The quaternary phase of a blast results from any explosion-related illness or injury including hyperglycemia, hypertension, angina, asthma, COPD, or sepsis (p. 21).
20. A patient fell two weeks ago, striking his head. He came to the emergency department with a persistent headache and nausea. He was diagnosed with a small subdural hematoma and has been in the ED for 24 hours awaiting an inpatient bed. The night shift nurse reports that he has been anxious, restless, and shaky. He vomited twice during the night. He tells the day shift nurse that he couldn't sleep because a young child kept coming into his room. What is a likely cause for these signs and symptoms?
- Increased intracranial pressure
Rationale: Signs of increased intracranial pressure include headache, nausea and vomiting, amnesia, behavioral changes, altered level of consciousness (p. 99).
 - Alcohol withdrawal**
Rationale: Alcohol withdrawal is a common delayed condition because symptoms are difficult to identify early. Signs include autonomic hyperactivity, hand tremors, nausea or vomiting, psychomotor agitation, anxiety, insomnia, hallucinations, or seizures (p. 397).
 - Rhabdomyolysis
Rationale: Signs of rhabdomyolysis includes muscle pain or weakness, dark red or brown urine, general weakness or malaise, and elevated creatinine kinase levels (p. 198).
 - Pulmonary embolus
Rationale: Signs of pulmonary embolus include anxiety, pleuritic chest pain, dyspnea, hypoxemia, hemoptysis, cough, orthopnea, adventitious lung sounds, decreased lung sounds, jugular vein distension, or hypotension (p. 391).