1. In a rear-impact motor vehicle crash, which area of the spine is most susceptible to injury?

A. Cervical
B. Thoracic
C. Lumbar
D. Sacral-coccygeal

2. Prolonged scene times may reflect:

A. A decrease in death rates
B. Delivery of better care
C. Accomplishment of interventions
D. Ineffective team collaboration

3. Which of the following indicates a state of hyperventilation?

A. An adult respiratory rate greater than 20 per minute
B. A tidal volume of less than 400 mL
C. An oxygen saturation greater than 94%
D. An end tidal carbon dioxide level less than 30 mmHg

4. A 54-year-old male is involved in a motor vehicle collision. The steering wheel is bent. During your initial assessment, you note his skin is pale, radial pulses are present, and breath sounds are clear. The patient is tender over his sternum and complains of chest pain. Which intrathoracic injury should you suspect given the above findings?

A. Cardiac contusion
B. Traumatic aortic rupture
C. Flail chest
D. Tension pneumothorax

5. Which of the following is considered one of the four essential components to maintain normal perfusion?

A. Serum lactate levels
B. $ETCO_2$ levels
C. SaO_2 levels
D. Fluid levels

6. As intracerebral pressure rises after an isolated head injury, what does the systolic blood pressure do?

A. Stays the same
B. Decreases
C. Increases
D. Changes randomly

7. Which of the following mechanisms of injury does not commonly cause damage to the spinal cord?

A. Hyperextension
B. Hyperflexion
C. Lateral stress
D. Compression

8. A 4-year-old female is unconscious after falling off a bicycle. Which of the following is the best method to open the airway?

A. Modified jaw-thrust
B. Head tilt
C. Neck flexion
D. Neck lift

9. When performing the ITLS Primary Survey, the team leader may minimize errors by:

A. Performing all interventions
B. Limiting crew roles
C. Permitting crew to continue the assessment
D. Delegating interventions

10. You have placed an NPA in your patient and now observe mild hemorrhage from the nares. You should:

A. Immediately remove the NPA and pack the nose with gauze
B. Immediately remove the NPA and reinsert on the opposite nare
C. Leave the NPA in place so as not to disturb the clot or reactivate bleeding
D. Contact medical control as an NPA will not cause hemorrhage

11. A 27-year-old male with blunt chest trauma from a motor vehicle collision was successfully intubated at the scene. While ventilating the patient, you note resistance with an absence of right chest wall movement. You should suspect a:

A. Flail chest
B. Gastric distention
C. Mucus obstruction
D. Tension pneumothorax

12. Which of the following assessment findings is associated with neurogenic shock?

A. Increased pulse, cool clammy skin
B. Increased pulse, normal skin color and temperature
C. Decreased pulse, cool clammy skin
D. Decreased pulse, normal skin color and temperature

13. Which of the following sets of vital signs is most compatible with a diagnosis of isolated traumatic brain injury with increasing intracranial pressure?

A. BP 170/100; P 50
B. BP 80/60; P 130
C. BP 80/60; P 50
D. BP 170/100; P 130

14. Common mechanisms of injury for the pediatric patient include all of the following except:

A. Falls
B. Animal bites
C. Burns
D. Motor vehicle collisions

15. Which of the following injuries would change a trauma patient's transport classification from "stable" to "load and go"?

A. Clavicle fracture
B. Pelvic fracture
C. Bilateral humerus fractures
D. Bilateral tibia fractures

16. Which of the following findings would not make a patient difficult to ventilate with a bag-valve mask?

A. Beard
B. Obesity
C. Elderly patient
D. Multiple nose piercings

17. An unconscious 18-year-old male is involved in a motor vehicle collision. You find him unrestrained behind the bent steering wheel. He is unconscious with cool, pale and clammy skin. Vitals are BP 90/40, P 120 and thready, and R 30 and shallow. Your assessment reveals that he is blue around the lips, has distended neck veins and tracheal deviation to the right. He also has an asymmetrical chest with absent breath sounds on the left. You should suspect:

A. Cardiac tamponade
B. Tension pneumothorax
C. Massive hemothorax
D. Simple pneumothorax

18. Hemostatic agents applied directly to the source of bleeding must be used in conjunction with:

A. Direct pressure to the wound
B. Tourniquets proximal to the wound
C. Pressure points to arteries proximal to the wound
D. Elevation of the wound above the level of the heart

19. Routine use of hyperventilation in the traumatic brain injury (TBI) patient will:

A. Cause vasoconstriction and increased cerebral ischemia
B. Cause vasodilation and decreased intracranial pressure (ICP)
C. Cause an increase of end-tidal CO_2
D. Cause peripheral hypoxia and cyanosis

20. Which finding requires interruption of the ITLS Primary Survey?

A. Complete airway obstruction
B. Gasping respirations
C. Impaled object in abdomen
D. Very weak pulse

21. Bag-valve-mask ventilation:

A. Rarely causes gastric distention due to low airway pressures
B. Is more effective in patients with dentures removed
C. Is easily accomplished by one rescuer at the patient's head
D. May exceed 60 cm H_2O pressure in the airway

22. Which of the following is true regarding pulmonary contusion?

A. Uncommon in chest trauma
B. Caused by hemorrhage into the lung parenchyma
C. Only caused by blunt force trauma
D. Rapidly develops after injury

23. A 23-year-old female fell from a second-floor balcony. Upon arrival, you find her lying in the grass. She responds to verbal commands and your assessment reveals flat neck veins, and normal chest, abdomen and pelvis examinations. Her skin is cool, clammy and ashen; respirations are rapid and shallow; radial pulses are too rapid to count and thready. You place her on the heart monitor and it shows a wide-complex tachycardia of about 280 per minute. You should suspect:

A. Hypovolemic shock
B. Relative hypovolemic (high-space) shock
C. Mechanical (obstructive) shock
D. Cardiogenic shock

24. In the absence of herniation syndrome, adult patients with suspected traumatic brain injury should be ventilated as a rate of:

A. 8-10 per minute
B. 12-14 per minute
C. 16-18 per minute
D. 20-22 per minute

25. What is the most likely cause of unequal pupils in an altered mental status patient with a head injury?

A. Increased intracranial pressure
B. Pre-existing condition
C. Alcohol intoxication
D. Hypotension

26. A 57-year-old male has a respiratory rate of 36, $ETCO_2$ of 30 mmHg, and an oxygen saturation of 80%. You should:

A. Coach the patient to slow his breathing as his $ETCO_2$ level indicates hyperventilation
B. Ventilate with a BVM at a higher rate to increase the patient's oxygen levels
C. Ventilate with a BVM at a rate of 6 to increase the patient's $ETCO_2$ level
D. Provide supplemental oxygen

27. A 31-year-old male presents with difficulty breathing, rapid and weak pulse, and flat neck veins. His trachea is midline and he has decreased breath sounds and dullness to percussion upon assessment of the left side of the chest. You should suspect:

A. Cardiac tamponade
B. Flail chest
C. Tension pneumothorax
D. Massive hemothorax

28. A 45-year-old female is found unconscious at the scene of a motor vehicle collision. Her vital signs are BP 80/40, P 130, and R 30. Which of the following is the most likely cause for her vital signs?

A. Fractured lower legs
B. Intracranial hemorrhage
C. Bleeding into the chest or abdomen
D. Spinal cord injury with neurogenic shock

29. The cause of a secondary brain injury is:

A. Contra-coup
B. Coup
C. Hemorrhage
D. Hypoxia

30. Which one of the following is a reason to interrupt the initial assessment?

A. Cardiac arrest
B. Multiple open (compound) fractures
C. Severe head injury with brain tissue visible
D. Severe shock

31. Which of the following is not a desired characteristic of a suction device?

A. It can be carried in an airway kit with an oxygen cylinder and other airway equipment
B. It can be hand powered or battery powered
C. It can generate sufficient suction and volume displacement to remove pieces of food, blood clots, and thick secretions from the oropharynx
D. It can be powered by your portable O_2 cylinder so it is not dependent on battery power

32. What is the most serious early complication of burns from electrical contact?

A. Cervical spine injury
B. Cardiac arrhythmia
C. Hypovolemic shock
D. Renal failure

33. Which of the following changes is most useful to monitor in the child with head injury?

A. Frequency of vomiting
B. Level of consciousness
C. Reflexes
D. Sensory exam

34. A disoriented 23-year-old male is injured in a motorcycle collision. The patient appears to be intoxicated and does not want medical attention despite a large laceration on his scalp, which is actively bleeding. You should:

A. Have the patient call a friend or family member and have them drive him home and sleep it off
B. Discuss the impact of alcohol abuse with him
C. Treat him as a head injured patient
D. Wait until the patient loses consciousness and then transport

35. An unrestrained 17-year-old female driver rear-ends a cement truck at a high rate of speed. She is unconscious, pale, cool and clammy, has fast, labored respirations and fast, thready radial pulses. Her neck veins are flat, trachea midline, chest motion is asymmetrical, and absent breath sounds on the left. You should suspect:

A. Cardiac tamponade
B. Tension pneumothorax
C. Massive hemothorax
D. Simple pneumothorax

36. Which of the following is true regarding trauma in the elderly?

A. Elderly patients are less likely to bleed internally than younger patients
B. Elderly patients have better outcomes following burns than younger patients
C. Fatal outcomes are more likely in the elderly than in the young
D. Motor vehicle collisions are an uncommon mechanism of injury

37. Which of the following organs will suffer the least structural damage from a gunshot wound from a rifle?

A. Spleen
B. Kidney
C. Liver
D. Lung

38. Which of the following should always be performed prior to transportation?

A. Splint all fractures
B. Control major external bleeding
C. Perform the ITLS Secondary Survey
D. Assess vital signs

39. Which of the following distinguishes a tension pneumothorax from a simple pneumothorax?

A. Tachycardia
B. Shock
C. Dyspnea
D. Anxiety

40. A 25-year-old female was stabbed in the left arm. She presents with an altered mental status and signs of shock. Bleeding is uncontrolled with direct pressure. You should:

A. Apply a tourniquet directly over the wound
B. Elevate the extremity above the level of the heart
C. Apply a pressure point
D. Apply a tourniquet proximal to the injury

41. An unresponsive 36-year-old female was involved in a motorcycle collision. Vital signs are BP 170/100, P 50, R 8 and GCS 3. You should suspect:

A. Hypovolemia
B. Increased intracranial pressure
C. Pain and anxiety
D. Spinal cord injury

42. A 42-year-old male is involved in a motorcycle collision. Which of the following assessment findings should be managed first?

A. Airway obstruction
B. Hypotension
C. External arterial bleeding
D. Open lower leg fracture

43. A 32-year-old male is involved in a motor vehicle collision. The steering wheel is bent. Your assessment reveals present and equal bilateral breath sounds, and a rapid and weak radial pulse that disappears upon inspiration. You should suspect:

A. Cardiac contusion
B. Cardiac tamponade
C. Flail chest
D. Tension pneumothorax

44. Medical Director requests application of a second tourniquet. Which of the following is the appropriate site?

A. Distal to the injury site
B. Just below the first tourniquet
C. Directly over the first tourniquet
D. Directly over the wound

45. A 35-year-old male is alert and oriented at the scene of a motor vehicle collision. He is complaining of knee pain and a headache. Your assessment reveals a contusion above the left eye, swelling to the left knee and unequal pupils (left is dilated). Vital signs are: BP 116/72, P 88 and R 16. You should suspect:

A. Alcohol intoxication
B. Cerebral herniation
C. Decreased intracranial pressure
D. Ocular trauma

46. You have a patient with an isolated stab wound to the lateral chest. According to recent studies, which of the following procedures should be avoided?

A. Bag-valve-mask ventilations
B. Supplemental oxygen administration
C. Application of an occlusive dressing
D. Spinal motion restriction

47. What is the most common cause of cardiopulmonary arrest in the trauma patient?

A. Brain injury
B. Hypoxemia
C. Myocardial contusion
D. Ventricular arrhythmia

48. A 34-year-old female was struck by a vehicle causing blunt force chest trauma. She is unconscious with gasping respirations, almost no air movement, a rapid, thready carotid pulse and flat neck veins. You should:

A. Perform a head tilt
B. Perform chest thrusts
C. Continue the ITLS Primary Survey
D. Provide positive pressure ventilation

49. Which one of the following is typically associated with post-traumatic hemorrhage early shock?

A. Ventricular dysrhythmias
B. Hypotension
C. Blood volume loss of 30% to 45%
D. Narrowed pulse pressure

50. An unresponsive 52-year-old male was struck in the head by the bucket of a crane. Vital signs are BP 134/80, P 88 and R 8 and shallow. The patient should be ventilated at a rate of:

A. 8-10 per minute
B. 12-14 per minute
C. 18-20 per minute
D. 20-24 per minute