1. A patient has sustained an injury to his mediastinum. Based on the anatomy of his chest, which of the following structures may have been injured?

1. The diaphragm
2. The esophagus
3. The lungs
4. A bronchus

Answer: b

Objective: 23-1

Reference: 772

2. Which of the following statements indicates that the speaker understands chest trauma?

1. “Open chest injuries are more serious than closed chest injuries because air and bacteria can enter the chest through the open wound.”
2. “In general, an open chest injury caused by blunt trauma is more life threatening than a closed one due to increased blood loss.”
3. “Internal chest injuries are more difficult to assess and manage than are the more obvious external chest injuries.”
4. “Closed chest injuries are caused by penetrating trauma and cause more life-threatening injuries than do open chest injuries.”

Answer: c

Objective: Supplemental

Reference: 774

3. A 39-year-old man has been stabbed once in the anterior chest. When notifying the patrol aid room by radio, you inform them that the patient has suffered what possible type of injury?

1. Flail chest
2. Evisceration
3. A lacerated heart
4. An open chest injury

Answer: d

Objective: Supplemental

Reference: 774

4. An OEC candidate asks you to explain a pneumothorax. Your response should be that it occurs when:

1. the lung becomes overinflated with air and then collapses.
2. air accumulates between the inner chest wall and the outside of the lung, causing the lung to collapse.
3. the trachea becomes obstructed, causing the lungs to collapse.
4. air enters the lung alveoli through a traumatic opening in the chest wall.

Answer: b

Objective: 23-3

Reference: 777

5. When assessing a patient, which of the following signs or symptoms is most indicative that the patient is suffering from a pneumothorax?

1. Shortness of breath
2. Severe pain upon each inspiration
3. Decreased breath sounds in the right lung
4. Crepitus to the chest wall

Answer: c

Objective: 23-4

Reference: 778

6. You are at the scene of a shooting. Your assessment reveals a 23-year-old man who has been shot twice. The first wound is to the left lower quadrant of the abdomen and is bleeding. The second wound is to the left lateral chest and makes a sucking sound every time the patient takes a breath. The initial action of an OEC Technician should be which of the following actions?

1. Cover the chest wound with a gauze dressing.
2. Cover the chest wound with a gloved hand.
3. Place direct pressure over the abdominal wound.
4. Place the patient on high-flow oxygen using a nonrebreather mask.

Answer: b

Objective: 23-6

Reference: 785

7. Which of the following phrases best describes a flail segment?

1. Multiple rib fractures with bruising of the underlying lung
2. Fractured ribs that have collapsed the underlying lung
3. Multiple fractures to the rib cage caused by blunt trauma
4. Two or more adjacent ribs that have been broken in two or more places.

Answer: d

Objective: 23-3

Reference: 775

8. Your patient was involved in a serious motor vehicle collision. Which of the following assessment findings best helps to determine that the patient has a flail segment?

1. Paradoxical chest wall movement
2. Shortness of breath
3. Pain upon inspiration
4. Chest wall bruising

Answer: a

Objective: 23-4

Reference: 775

9. You are managing a patient with a large flail segment in the right lateral chest. The immediate threat to this patient’s life is:

1. blood loss.
2. hypoxia.
3. infection.
4. rib fractures.

Answer: b

Objective: 23-4

Reference: 775

10. When assessing a patient who sustained blunt trauma to the chest, which of the following assessment findings is most indicative of a serious injury to the lung?

1. Hypoxia
2. Painful respirations
3. A respiratory rate of 20 breaths per minute
4. An ecchymotic area on the anterior chest

Answer: a

Objective: 23-4

Reference: 781

11. A patient with blunt chest trauma has paradoxical chest movement. She is conscious and confused and is breathing rapidly and shallowly. After manually stabilizing the flail section of the chest wall, you should:

1. apply an ice pack to the flail section to decrease bruising.
2. administer oxygen through a nonrebreather facemask.
3. apply a flutter valve dressing.
4. insert an oropharyngeal airway.

Answer: b

Objective: Supplemental

Reference: 785

12. You are assisting at an accident scene and are asked to apply a dressing over a sucking chest wound on the patient’s left anterior chest wall. Which of the following items would you use?

1. A dry sterile gauze dressing
2. Sterile gauze soaked in sterile water
3. A clean cravat
4. Vaseline gauze

Answer: d

Objective: 23-6

Reference: 785

13. You have applied a nonporous dressing to a puncture wound on a patient’s chest. An OEC candidate asks you why the dressing was taped only on three sides. Your best response is that taping the dressing on three sides:

1. permits oxygen to enter the lungs.
2. allows trapped air to escape upon exhalation.
3. is less painful for the patient.
4. decreases the chances that air will enter the chest upon exhalation.

Answer: b

Objective: 23-6

Reference: 785

14. You treated a 19 year old with a puncture wound to the chest by covering the wound with an impermeable dressing. Now, as you perform your ongoing assessment, you note that the patient is tachypneic and is complaining of difficulty breathing. Breath sounds on the side of the injury are also diminished. Which of the following actions should you take immediately?

1. Assist his breathing with a bag-valve mask.
2. Lift a corner of the dressing from the wound for a few seconds; then reapply and check his breath sounds.
3. Add another layer to the dressing.
4. Load the patient quickly and transport him to a higher level of care.

Answer: b

Objective: 23-6

Reference: 785

15. You have placed an occlusive dressing on a puncture wound on the right side of the chest of a 33-year-old woman. During your ongoing assessment your primary concern is monitoring the injury for:

1. arterial bleeding.
2. infection at the wound site.
3. tension pneumothorax.
4. ecchymosis at the wound site.

Answer: c

Objective: 23-4

Reference: 785

16. An OEC candidate indicates that she understands the difference between a pneumothorax and a tension pneumothorax when she makes which of the following statements?

1. “A tension pneumothorax causes blood to accumulate around the lung; a pneumothorax involves the accumulation of air only around the lung.”
2. “A tension pneumothorax can cause cardiac output to decrease; a pneumothorax does not.”
3. “A pneumothorax describes a collapsed lung; a tension pneumothorax involves both a collapsed lung and blood loss.”
4. “A pneumothorax is caused by a closed chest injury; a tension pneumothorax is caused by an open chest injury.”

Answer: b

Objective: 23-3

Reference: 777

17. You suspect that a trauma patient is suffering from a hemothorax to the left lung. Which of the following assessment findings would reinforce your suspicion?

1. Neck vein distention and absent breath sounds in the right lung
2. Cyanosis and a blood pressure of 210/100
3. Bradycardia and hypertension
4. Respiratory distress and the signs and symptoms of shock

Answer: d

Objective: 23-3

Reference: 778

18. You are listening to two patrollers discuss the accident to which they just responded. Which of the following injuries would lead you to believe that one of the patients had suffered from traumatic asphyxia?

1. A chest wound that makes a sucking sound
2. Abdominal bruising and distention
3. Bluish discoloration of the neck and face
4. A bilateral femur deformity

Answer: c

Objective: 23-4

Reference: 781

19. Which of the following actions occurs when the diaphragm and the intercostal muscles relax?

1. Inhalation
2. Release
3. Inspiration
4. Exhalation

Answer: d

Objective: 23-2

Reference: 772

20. The thorax is enclosed by the:

1. ribs, sternum, thoracic spine, and diaphragm.
2. ribs, clavicles, diaphragm, and mediastinum.
3. thoracic vertebrae, diaphragm, mediastinum, and clavicles.
4. clavicles, sternum, diaphragm, and thoracic spine.

Answer: a

Objective: 23-1

Reference: 772

21. The heart and lungs are located in the:

1. thoracic cavity.
2. pericardial cavity.
3. pleural cavity.
4. mediastinum.

Answer: a

Objective: 23-1

Reference: 772

22. The diaphragm separates the:

1. right lung from the left lung.
2. lungs from the heart.
3. thoracic cavity from the abdominal cavity.
4. heart and lungs from the spine.

Answer: c

Objective: 23-1

Reference: 772

23. The diaphragm plays a major role in respiration. During inhalation, the diaphragm:

1. elongates and descends into the abdomen, allowing air to enter the lungs.
2. contracts and creates a negative pressure in the thorax, which draws air into the lungs.
3. relaxes so that it can be stretched as you pull air into the lungs.
4. contracts and increases internal thoracic pressure, which sucks air into the lungs.

Answer: b

Objective: 23-2

Reference: 772

24. Injuries at which level of the spinal cord can affect the phrenic nerves and therefore respiration?

1. T1–T3
2. T4–T6
3. C6–T1
4. C3–C5

Answer: d

Objective: 23-2

Reference: 772

25. Your 35-year-old patient has received major chest trauma. He complains of shortness of breath and pain. Your assessment reveals distended neck veins and pulsus paradoxus. Based on these signs and symptoms, you believe the patient to be suffering from:

1. acute myocardial infarction.
2. pericardial tamponade.
3. pleural effusions.
4. traumatic asphyxia.

Answer: b

Objective: 23-3

Reference: 779

26. The most serious chest injury resulting from rapid deceleration is

1. aortic rupture.
2. hemothorax.
3. subcutaneous emphysema.
4. sternoclavicular separation.

Answer: a

Objective: Supplemental

Reference: 779

27. Commotio cordis is sudden cardiac death resulting from

1. a hereditary defect that affects infants and toddlers.
2. blunt trauma, usually in children younger than 16 years old.
3. a crushing injury to the chest in teenage auto collision victims.
4. cardiac arrest secondary to pulmonary embolism.

Answer: b

Objective: Supplemental

Reference: 780

28. You are instructing a class in Outdoor Emergency Care when a student asks you to explain the L.A.P. method of examining the thorax. Your best reply to this question would be which of the following statements?

1. “The L.A.P. method divides the chest into three exam areas: the lateral, anterior, and posterior thorax.”
2. “The L.A.P. method can be used under any conditions and in any environment.”
3. “The L.A.P. method is a rapid assessment for deformities of the chest.”
4. “The L.A.P. method directs you to look, auscultate, and palpate the chest.”

Answer: d

Objective: 23-5

Reference: 783

29. You are following the L.A.P. method to examine the chest of a 38-year-old trauma patient. To assess for thoracic cage instability, you would apply moderate downward pressure on the sternum while asking the patient to take a deep breath, and then you would:

1. “walk” the patient’s clavicles with your fingertips while the patient exhales.
2. have the patient exhale slowly while you listen to the breath sounds.
3. apply moderate inward pressure on the lateral walls of the rib cage and ask the patient to take a deep breath.
4. palpate the upper thorax for subcutaneous emphysema.

Answer: c

Objective: 23-5

Reference: 784

30. You are treating a 26-year-old man with a pneumothorax. The patient’s breathing has been inadequate, and you have been assisting his ventilations with a bag valve mask. The patient’s condition seems to be worsening. Because you understand the physiology involved in a pneumothorax, you are most concerned that:

1. you are not maintaining an adequate seal around the facemask, and thus the patient is not getting enough oxygen.
2. the pressure from the BVM is causing more air to enter the pleural space and is causing a tension pneumothorax.
3. the patient’s airway is not being maintained, so you should insert an oropharyngeal airway.
4. you may have missed an injury.

Answer: b

Objective: Supplemental

Reference: 785

31. You are treating a 26-year-old man who fell about 20 feet while rock climbing. He is complaining of right sided chest discomfort and dyspnea. You note that his respiratory rate is 28 and shallow. Based on this assessment, the best emergency care would be:

1. achieving spinal immobilization, splinting the affected area of the chest, and administering high-flow oxygen.
2. performing a rapid body survey and assisting ventilations with BVM and high-flow oxygen.
3. achieving spinal immobilization, administering high-flow oxygen, and then performing “load and go.”
4. placing the patient in a position of comfort to help breathing, performing an L.A.P. exam of the thorax, and administering high-flow oxygen.

Answer: b

Objective: Supplemental

Reference: 786

32. You are treating a 16-year-old male who was skiing out of control and ran off the trail and into the woods. When you arrive, he is alert and complaining of pain in his right lower chest. Upon examination you note that he has impaled himself with a tree branch. He tells you he will feel better if you just remove the branch. Based on your training as an OEC technician, you would respond by making which of the following statements?

1. “I need to get a bulky dressing ready in case there is bleeding when I remove the branch.”
2. “Once my helpers arrive and we are ready to transport you, we can remove the branch.”
3. “We need to leave the branch in place until we get you to a hospital.”
4. “I’m not supposed to remove the branch, but you can if you think it will make you more comfortable.”

Answer: c

Objective: Supplemental

Reference: 786