

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
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11	A	B	C	D
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13	A	B	C	D
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17	A	B	C	D
18	A	B	C	D
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23	A	B	C	D
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25	A	B	C	D

26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D
31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D
44	A	B	C	D
45	A	B	C	D
46	A	B	C	D
47	A	B	C	D
48	A	B	C	D
49	A	B	C	D
50	A	B	C	D

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|-----|---|-----|---|
| 1. | B | 26. | C |
| 2. | D | 27. | D |
| 3. | D | 28. | C |
| 4. | A | 29. | C |
| 5. | B | 30. | B |
| 6. | D | 31. | A |
| 7. | A | 32. | C |
| 8. | B | 33. | A |
| 9. | D | 34. | B |
| 10. | C | 35. | B |
| 11. | A | 36. | A |
| 12. | B | 37. | D |
| 13. | B | 38. | B |
| 14. | D | 39. | A |
| 15. | C | 40. | D |
| 16. | B | 41. | A |
| 17. | A | 42. | D |
| 18. | D | 43. | C |
| 19. | A | 44. | C |
| 20. | A | 45. | D |
| 21. | B | 46. | C |
| 22. | C | 47. | A |
| 23. | B | 48. | D |
| 24. | D | 49. | B |
| 25. | C | 50. | C |

1. B

Objective: Chapter 1, Objective 1

Page: 4

Rationale: It is a critical part of the trauma assessment and begins before you approach the patient. If you fail to perform the preliminary steps of scene size-up, you may jeopardize your safety as well as that of your partner and patient.

2. D

Objective: Chapter 2, Objective 1

Page: 28

Rationale: When immediate interventions are needed, delegate them to your team members while you continue the assessment. This is an important concept that immediately addresses problems encountered and yet does not interrupt the assessment sequence and does not increase scene time. Teamwork is essential to good patient outcomes.

3. D

Objective: Chapter 6, Objective 3

Page: 108

Rationale: A carbon dioxide level below 35 mmHg indicates hyperventilation.

4. A

Objective: Chapter 8, Objective 3

Page: 131

Rationale: A large flail segment is best managed through positive pressure intervention. Although oxygen administration is indicated it should be administered at 12-15 lpm.

5. B

Objective: Chapter 4, Objective 4

Page: 66

Rationale: The condition causing the vascular space to be too large for a normal amount of blood is called “shock,” or relative hypovolemia. Neurogenic shock, commonly called spinal shock, is a form of relative hypovolemia. The clinical presentation of neurogenic shock differs from hemorrhagic shock in that there is no catecholamine release and thus no pallor (vasoconstriction), tachycardia, or sweating. The patient will have a decreased blood pressure, but the heart rate will be normal or slow, and the skin is usually warm, dry, and pink.

6. D

Objective: Chapter 5, Objective 1

Page: 78

Rationale: The patient must be in the supine position, preferably head down, to distend the vein and to prevent air embolism.

7. A

Objective: Chapter 12, Objective 2

Page: 245

Rationale: When the ICP increases, the systemic blood pressure increases to try to preserve blood flow to the brain. The body senses the rise in systemic blood pressure, and this triggers a drop in the pulse rate as the body tries to lower the systemic blood pressure.

8. B

Objective: Chapter 10, Objective 2

Page: 193

Rationale: “Pulling traction” is not a prehospital option, and the term traction is not an appropriate description for motion restriction of the spine. Traction usually results in further instability of any spinal-column injury.

9. D

Objective: Chapter 13, Objective 6

Page: 254

Rationale: The patient should be readied for immediate transport with appropriate spinal motion restriction, if indicated. Of note, penetrating trauma to the abdomen or chest with no signs of neurologic deficit does not require immobilization of the spine. Time to definitive care at the trauma center is critical. Unnecessary intervention on scene should be avoided. Once en route to an appropriate trauma center, establish two large-bore IV lines of normal saline.

10. C

Objective: Chapter 14, Objective 5

Page: 264

Rationale: Proper management of fractures and dislocations will decrease the incidence of pain, disability, and serious complications. Treatment in the prehospital setting is directed at proper immobilization of the injured part by the use of an appropriate splint and padding. Pain control with appropriate analgesics is another major component of the care of injured extremities.

11. A

Objective: Chapter 17, Objective 6

Page: 315

Rationale: Intravenous (IV) line insertion is rarely needed on scene during initial care unless delay in transport to a hospital is unavoidable. It takes hours for burn shock to develop. Therefore, the only reason to initiate IV therapy on scene is if other factors indicate a need for fluid volume or medication administration.

12. B

Objective: Chapter 18, Objective 4

Page: 349

Rationale: Changing level of consciousness is the best indicator of traumatic brain injury.

13. B

Objective: Chapter 19, Objective 2

Page: 362

Rationale: Care providers must distinguish between signs and symptoms of a chronic disease and an acute problem. For example: A geriatric patient may have non-pathologic rales, or the loss of skin elasticity and the presence of mouth breathing may not necessarily represent dehydration or dependent edema.

14. D

Objective: Chapter 20, Objective 5

Page: 373

Rationale: Do not mistake normal vital signs in pregnant patients as signs of shock. The pregnant patient has a normal resting pulse that is 10 to 15 beats faster than usual, and the blood pressure is 10 to 15 mmHg lower than usual. However, it is also important to realize that a blood loss of 30% to 35% can occur in these patients before there is a significant change in blood pressure.

15. C

Objective: Chapter 12, Objective 5

Page: 239

Rationale: An altered mental status can be seen in every form of substance abuse. However, remember that an altered level of consciousness is always due to a head injury, shock, or hypoglycemia until proven otherwise. Also remember that all patients have an emergency medical condition until proven otherwise.

16. B

Objective: Chapter 16, Objective 1

Page: 296

Rationale: Hypoxemia is the most common cause of traumatic cardiopulmonary arrest. Acute airway obstruction or ineffective breathing will be clinically manifested as hypoxemia.

17. A

Objective: Appendix A, Objective 3

Page: A-7

Rationale: Write a report of the incident as soon as possible. Blood tests (if any) to be done on the exposed emergency care provider depend on reports of testing of the source patient.

18. D

Objective: Chapter 1, Objective 5

Page: 9

Rationale: Consider a bruised chest wall as a myocardial contusion requiring the monitoring of cardiac rhythm and, if available, a 12-lead ECG.

19. A

Objective: Chapter 2, Objective 2

Page: 33

Rationale: If the patient has an altered mental status, do a brief neurologic exam to identify possible increased intracranial pressure (ICP). This exam should include the pupils and Glasgow Coma Scale (GCS) score. All patients with altered mental status should have a finger-stick glucose test performed.

20. A

Objective: Chapter 6, Objective 2

Page: 103

Rationale: Always immediately clear blood and secretions. You also must be alert for sounds that indicate trouble. Remember: Noisy breathing is obstructed breathing.

21. B

Objective: Chapter 7, Objective 6

Page: 128

Rationale: Overinflation may cause malposition, loss of seal, or trauma.

22. C

Objective: Chapter 8, Objective 9

Page: 166

Rationale: Bruising of the heart is basically the same injury as an acute myocardial infarction.

23. B

Objective: Chapter 9, Objective 2

Page: 175

Rationale: Many prefer the anterior site because air in the pleural space tends to accumulate anteriorly in the supine patient. Thus, there is a better chance of having the air in the pleural space removed when the anterior approach to decompressing is used. It is also easier to access when the patient is on the ambulance stretcher.

24. D

Objective: Chapter 4, Objective 1

Page: 60

Rationale: It is important to remember that blood pressure requires a “steady state” activity of all the preceding factors. The heart must be pumping, the blood volume must be adequate, the blood vessels must be intact, and the lungs must be oxygenating the blood.

25. C

Objective: Chapter 5, Objective 3

Page: 83

Rationale: The proximal tibia, approximately 2 cm below the patella and approximately 2 cm (depending on the patient’s anatomy) medial to the tibial tuberosity, or one finger breadth medial to the tibial tuberosity, is often the easiest site to locate.

26. C

Objective: Chapter 12, Objective 2

Page: 234

Rationale: When the ICP increases, the systemic blood pressure increases to try to preserve blood flow to the brain. The body senses the rise in systemic blood pressure, and this triggers a drop in the pulse rate as the body tries to lower the systemic blood pressure.

27. D

Objective: Chapter 10, Objective 3

Page: 196

Rationale: Immobilization onto a long backboard is not indicated in penetrating wounds of the torso, neck, or head unless there is clinical evidence of a spine injury.

28. C

Objective: Chapter 13, Objective 1

Page: 251

Rationale: The retroperitoneal abdomen is the part of the abdomen behind the thoracic and true portions of the abdomen, separated from the other abdominal regions by a thin retroperitoneal membrane; it includes the kidneys, ureters, pancreas, posterior duodenum, ascending and descending colon, abdominal aorta, and inferior vena cava.

29. C

Objective: Chapter 14, Objective 2

Page: 268

Rationale: Initial administration of sodium bicarbonate should be at 1 mEq/kg bolus followed by an infusion of 0.25 mEq/kg body weight per hour of the solution.

30. B

Objective: Chapter 17, Objective 6

Page: 314

Rationale: Limit burn wound progression as much as possible. Rapid cooling early in the course of a surface burn injury can help limit this progression. Following removal from the source of the burn, the skin and clothing are still hot, and this heat continues to injure the tissues, causing an increase in burn depth and seriousness of the injury. Cooling halts this process and is beneficial if done appropriately. Cooling should be done with tap water or any source of clean room-temperature water, but it should be undertaken for no more than 5 to 10 minutes. Cooling for longer periods of time can induce hypothermia and subsequent shock. Do not use ice or ice water because this may induce hypothermia.

31. A

Objective: Chapter 18, Objective 4

Page: 340

Rationale: Note whether the child is “working” to breathe, demonstrated by subcostal or suprasternal retractions, nasal flaring, or grunting. If you have any doubt that the child is breathing adequately on his or her own, immediately assist the child’s breathing.

32. C

Objective: Chapter 19, Objective 2

Page: 357

Rationale: Geriatric patients can die from less severe injuries than younger patients. In addition, it is often difficult to separate the effects of the aging process or of a chronic illness from the consequences of an injury.

33. A

Objective: Chapter 20, Objective 2

Page: 373

Rationale: In supine hypotension syndrome, the hypotension is caused by the weight of the pregnant uterus pressing on the inferior vena cava and decreasing the return of blood to the heart by up to 30%.

34. B

Objective: Chapter 16, Objective 3

Page: 295

Rationale: In a review of trauma patients who presented unconscious without palpable pulse or spontaneous respiration, patients with sinus rhythm and non-dilated (< 4 mm) reactive pupils had a good chance of survival.

35. B

Objective: Chapter 1, Objective 4

Page: 15

Rationale: The secondary blast injury is the result of the patient being struck by material (shrapnel) propelled by the blast force.

36. A

Objective: Chapter 2, Objective 2

Page: 24

Rationale: The purpose of the ITLS Primary Survey is to prioritize the patient and to identify immediately life-threatening conditions in less than 2 minutes.

37. D

Objective: Chapter 6, Objective 5

Page: 112

Rationale: Continued problems with mask ventilation should prompt the consideration of airway obstruction as a potential cause. Ultimately, the placement of a “rescue” ventilation device (BIAD, such as laryngeal mask airway) or endotracheal tube may be required.

38. B

Objective: Chapter 7, Objective 8

Page: 135

Rationale: The mark on the tube that is even with the teeth should be three times the diameter of the ET tube. Thus, an 8.0 mm tube in an adult should be at 24 cm.

39. A

Objective: Chapter 9, Objective 1

Page: 174

Rationale: Decompress the affected side of the chest, if indicated. The indication for performing emergency chest decompression is the presence of a tension pneumothorax with decompensation as evidenced by more than one of the following: respiratory distress and cyanosis, loss of the radial pulse (late shock), and decreasing level of consciousness.

40. D

Objective: Chapter 4, Objective 4

Page: 68

Rationale: If cardiac output falls (either due to a slow or very fast heart rate, or lowered stroke volume), blood pressure will fall.

41. A

Objective: Chapter 5, Objective 3

Page: 79

Rationale: The intraosseous need should be inserted into the proximal tibia, approximately 2 cm below the patella and approximately 2 cm (depending on the patient's anatomy) medial to the tibial tuberosity, or one finger breadth medial to the tibial tuberosity. This is often the easiest site to locate.

42. D

Objective: Chapter 12, Objective 6

Page: 246

Rationale: Benzodiazepines can drop blood pressure as well as cause respiratory depression if not used judiciously and carefully, titrating the dose to what the patient requires to reduce agitation. An added benefit to the use of benzodiazepines is that they prevent seizures. Seizure prophylaxis in the head injured patient should be initiated on the recommendation of medical direction. Other agents suitable for use include phenytoin. Do not use barbiturates because they can cause hypotension.

43. C

Objective: Chapter 10, Objective 4

Page: 193

Rationale: Emergency Rescue is reserved for those situations in which there is immediate (within seconds) environmental threat to the life of the victim and/or emergency care responder. Patients should be moved to a safe area in a manner that places the emergency care responder at the least risk. Rapid extrication should be considered for patients whose medical conditions or situations require fast intervention (1 or 2 minutes— but not seconds) to prevent death.

44. C

Objective: Chapter 13, Objective 2

Page: 251

Rationale: Blunt trauma is the most common mechanism of abdominal injury and has relatively high mortality rates of 10% to 30%. The reason is likely related to the frequency of accompanying injuries to the head, chest, pelvis, and/or an extremity in as many as 70% of motor vehicle collision victims.

45. D

Objective: Chapter 14, Objective 5

Page: 271

Rationale: Use a splint that will immobilize one joint above and one joint below the injury site.

46. C

Objective: Chapter 16, Objective 6

Page: 311

Rationale: Partial-thickness burns cause damage through the epidermis and into a variable depth of the dermis. Emergency care of partial-thickness burns involves cooling the burn and covering it with a clean, dry dressing.

47. A

Objective: Chapter 18, Objective 4

Page: 340

Rationale: Note whether the child is “working” to breathe, demonstrated by subcostal or suprasternal retractions, nasal flaring, or grunting. Look at the chest rise, listen for air going in and out, and feel the air coming out of the nose. If there is no movement, reposition the jaw to remove any anatomical obstruction. If you still do not sense any air exchange, you must breathe for the child. If you have any doubt that the child is breathing adequately on his or her own, immediately assist the child’s breathing.

48. D

Objective: Chapter 19, Objective 3

Page: 365

Rationale: All elderly patients should have cardiac monitoring, pulse oximetry, and capnography, if available.

49. B

Objective: Chapter 20, Objective 5

Page: 374

Rationale: Supine hypotension syndrome is acute hypotension in the pregnant patient due to decreased venous return. It usually occurs when the patient is in a supine position with a 20-week or larger uterus (uterus up to umbilicus). The transport of all pregnant trauma patients, if no contraindication exists, should be by one of the following methods to alleviate vena cava compression:

- Tilt or rotate the backboard 15 to 30 degrees to the patient’s left.
- Elevate the right hip four to six inches (10 to 15 centimeters) with a towel, and manually displace the uterus to the left.

50. C

Objective: Chapter 6, Objective 6

Page: 110

Rationale: Try to maintain a pulse oximeter reading of 95% or higher. However, do not withhold oxygen from a patient with a pulse oximeter reading above 95% who also shows signs and symptoms of hypoxia or difficulty breathing.