

Assessment in Action

Chap 1

1. **Answer:** B National Highway Traffic Safety Administration
2. **Answer:** C Ensure personal safety
3. **Answer:** D Americans with Disabilities Act
4. **Answer:** B Certification reciprocity
5. **Answer:** A Providing cervical spine immobilization
6. **Answer:** C Providing legal advice to patients
7. **Answer:** B Being able to communicate while giving respect to the listener
8. **Answer:** D Limits the availability of a patient's health care information
9. **Answer:** Continuous quality improvement is a circular system of continuous internal and external reviews and audits of all aspects of an EMS system. By looking at all the components of an EMS system, the CQI process seeks to identify areas that need improvement and enables the problems to be resolved through remediation and training rather than through punitive measures.
10. **Answer:** Research provides data that identify treatments that are beneficial and/or lifesaving for trauma patients and those that are not. Participation in EMS research empowers the EMT to help shape the future of trauma care.

Chap 2

1. **Answer:** C Gloves and HEPA mask
2. **Answer:** D Airborne
3. **Answer:** C Report it to the infection control officer
4. **Answer:** B Cumulative stress reaction
5. **Answer:** C Night sweats
6. **Answer:** D Participating in physical activity away from work may help to reduce stress.
7. **Answer:** A Alcohol is not a recommended way to manage stress. Exercise, good nutrition, meditation, and limiting the use of alcohol, tobacco, and caffeine will help reduce stress.
8. **Answer:** Long-term physical effects of stress include changes in appetite, gastrointestinal problems, backache, headaches, and fatigue.
9. **Answer:** Long-term psychological reactions to stress include fear, dull or nonresponsive behavior, depression, guilt, oversensitivity, anger, irritability, and frustration.
10. **Answer:** Your partner's sloppiness in failing to take standard precautions may adversely impact his health and the health of his family. Specifically, he may become exposed to an airborne disease that he could spread to others, including his coworkers, his patients, and his own family.

Chap 3

1. **Answer:** B duty to act.
2. **Answer:** C failure to obtain consent.
3. **Answer:** D expressed consent.
4. **Answer:** A Let him know how important it is that he accept transport to the hospital.
5. **Answer:** B abandonment.
6. **Answer:** C serving in the patient's best interest.
7. **Answer:** Your partner did not treat the patient professionally or ethically. You were also faced with a patient who initially refused treatment despite having a potentially serious medical problem. You had an ethical obligation to try your best to convince the patient to agree to treatment and transport.
8. **Answer:** You should report the heroin use to the nurse, physician assistant, or physician who accepts transfer of care from you at the hospital. This information will be important to continuity of patient care. As healthcare providers, we should regard drug addiction as an illness, not a crime. You would not need to notify law enforcement unless there are extenuating circumstances.

Chap 4

1. **Answer:** A Facilitation
2. **Answer:** B Asking leading or biased questions
3. **Answer:** A contact medical control.
4. **Answer:** D remain objective and impartial.
5. **Answer:** A Your estimated time of arrival
6. **Answer:** C physical assessment findings.
7. **Answer:** C follow your agency's directions for making an amendment.
8. **Answer:** D HIPAA
9. **Answer:**
 - Time the incident was reported
 - Time the EMS unit was notified
 - Time the EMS unit arrived at the scene
 - Time the EMS unit left the scene
 - Time the EMS unit arrived at the receiving facility
 - Time the patient care was transferred
10. **Answer:** Data may be obtained from the PCR to analyze causes, severity, and types of illness or injury requiring emergency medical care. These reports may also be used in an ongoing program for evaluation of the quality of patient care. All reports are periodically reviewed by your system. The purpose of these reviews is to make sure trauma triage and/or other prehospital care criteria have been met.

Chap 5

1. C. Prone
2. A. alges
3. C. asthen
4. D. Unilateral
5. C. NKA
6. D. Diplopia
7. D. hemoptysis
8. B. HTN

9. You are dispatched to an MVC involving a motorcycle. Upon your arrival, you find a 17 y.o. ♂ pt. lying prone on the ground. The pt.'s breath smells of ETOH. He is c/o of a H/A, hemiparesis, and diplopia. Upon examination, you find a 2 in. LAC above the LUQ of his abdomen and a GSW to his R leg, proximal to the thigh. The pt. was exhibiting hemoptysis. BP was 100/60 mm Hg. HR was 90 BPM. Pupils were PEARLA. Breath sounds were clear and equal bilaterally. Pt has NKA and a Hx of HTN. You treat the pt. by placing him on 12 LPM of oxygen via a NRB mask. You begin transport of the pt. in a left lateral recumbent position with an ETA of 10 minutes.

10. Miscommunication. If a provider uses acronyms, abbreviations, or symbols that are not widely known, it can result in miscommunication, which could result the patient's death.

Chap 6

1. **Answer:** A Coronal
2. **Answer:** B Carotid
3. **Answer:** C Femur
4. **Answer:** D Calcium
5. **Answer:** A Zygoma
6. **Answer:** C Radius
7. **Answer:** A Hinge
8. **Answer:** Respiratory compromise is the inability of the body to move gas effectively. It occurs when either ventilation or respiration is impaired. The heart and brain cells cannot survive without a constant supply of oxygen, and will die in minutes.

Decreased oxygen levels force cells to move from aerobic metabolism to anaerobic metabolism. Cellular functions become impaired. Lactic acid is created as a by-product of anaerobic metabolism. Once too much lactic acid is created, the pH of the blood will drop, and cells will die.
9. **Answer:** The brain stem is the control center that regulates a person's level of consciousness and vital signs. The brain stem is composed of three smaller components: the midbrain, medulla, and pons. The midbrain is responsible for a person's level of consciousness, whereas the pons and the medulla regulate and maintain the blood pressure, heart rate, and respiratory rate.
10. **Answer:** The autonomic nervous system is divided into two halves—the parasympathetic nervous system that dominates during periods of rest and relaxation, and the sympathetic nervous system that takes over in times of stress. When the body recognizes that irregularities are occurring, the sympathetic nervous system kicks into action and increases the vital signs to help the body adapt and attempt to reestablish normal function. The brain stem also helps to control the heart rate.

Chap 7

1. **Answer:** A Hypertension
2. **Answer:** A Slower pupillary reaction
3. **Answer:** C. It may take older adult patients more time to respond to your questions.
4. **Answer:** A. Nervous
5. **Answer:** B Overall health of the patient.
6. **Answer:** C Family members.
7. **Answer:** Side effects of certain medications may cause weakness, dizziness, and/or hypotension. Knowing what medications the patient takes and the side effects of those medications makes you better able to understand what caused a fall.
8. **Answer:** The year you were born and the country you live in can affect your life expectancy. These two factors are based on public health advances, changes within diets, attitudes regarding exercise, advances in medical care, access to that medical care, and personal behaviors. Overall health, medical conditions, and medications taken also contribute.
9. **Answer:** Rising costs of health care, mortality, death of friends and loved ones, isolation, depression
10. **Answer:** The increasing number of older adults in the United States as a result of the baby boom of the 1940s through the 1960s has produced a need for additional extended care facilities.

Chap 8

1. **Answer:** B Clothes drag
2. **Answer:** A keep your back straight.
3. **Answer:** B Yes, there is a significant MOI.
4. **Answer:** C scoop stretcher
5. **Answer:** C your elbows should extend just beyond the anterior torso.
6. **Answer:** D power lift.
7. **Answer:** A orthopaedic stretcher
8. **Answer:** A diamond carry.
9. **Answer:** Communication is important because you must constantly coordinate your lifting and carrying movements with other team members.
10. **Answer:** Am I physically strong enough to lift/move this patient? Is there adequate room to get into the proper stance before I lift the patient? Do I need additional personnel for lifting assistance?

Chap 9

1. **Answer:** C Scene safety
2. **Answer:** A Verbal stimuli
3. **Answer:** B Fever and chills
4. **Answer:** C Tachycardia
5. **Answer:** D A negative finding that requires no further care or intervention
6. **Answer:** C A process that identifies life threats
7. **Answer:** If you can make the scene safe without endangering yourself or anyone else, do so. If not, retreat to a safe area and call for additional appropriate resources to deal with the hazard(s) that you have identified.
8. **Answer:** The patient's blood pressure is 100/60 mm Hg, her pulse rate is 140 beats/min (tachycardia), and respirations are 24 breaths/min. Her skin is hot to the touch and flushed, and she has tenderness in the right lower abdominal quadrant.
9. **Answer:** The patient has fever, chills, vomiting, and diarrhea.

10. **Answer:** The SAMPLE mnemonic helps ensure that you remember to ask the pertinent questions about a patient's condition, even if you are forced to stop your line of questioning to provide treatment, ask more specific questions about a particular issue, or are otherwise interrupted.

Chap 10

1. **Answer:** C. Insert an oral airway and begin ventilations with a bag-mask device.
2. **Answer:** D. Reposition the airway by bringing the head back to a neutral position, then reopen the airway and attempt to ventilate.
3. **Answer:** A. Minimal or no chest rise and fall
4. **Answer:** B. Provide slow, gentle breaths during artificial ventilation over 1 second.
5. **Answer:** D. Insertion of a nasal airway
6. **Answer:** A. Roll the patient onto his side to allow for drainage of emesis.
7. **Answer:** B. Peripheral vasoconstriction
8. **Answer:** Oxygen is exchanged with carbon dioxide at the cellular level. In the presence of oxygen, cells convert glucose to energy through a process known as aerobic metabolism. The byproducts of this process are energy, water, and carbon dioxide. When cells attempt to convert glucose into energy without oxygen, less energy, lactic acid, and toxins accumulate in the cells. This process, anaerobic metabolism, does not meet the metabolic demands of the cell. The accumulation of lactic acid and toxins will eventually lead to cellular death if not corrected.
9. **Answer:** Ventilation is the physical act of moving air into and out of the lungs. The process of oxygenation occurs at the cellular level and is not involved in the physical act of moving air. In oxygenation, oxygen molecules are loaded onto hemoglobin molecules in the bloodstream.
10. **Answer:** You should provide assisted ventilations with a bag-mask device connected to oxygen. Even though this patient is breathing spontaneously, shallow respirations at a rate of 6 breaths per minute is not enough ventilation to provide adequate oxygenation to meet the needs of the body. Without assisted ventilations, it is likely the patient's hypoxia will get worse, leading to poor tissue perfusion resulting in anaerobic metabolism and tissue damage.

Chap 11

1. **Answer:** B generic name
2. **Answer:** A indications.
3. **Answer:** C side effects.
4. **Answer:** A Document the medication names and dosages.
5. **Answer:** D Drug interactions from this many medications are a concern.
6. **Answer:** B EMT-administered.
7. **Answer:** C Injection.
8. **Answer:** A The MDI route does *not* require an external oxygen source.
9. **Answer:** Medications delivered intravenously have the fastest onset of action because they are delivered directly into the bloodstream.
10. **Answer:** Many times patients may not consider OTC medications, vitamins, or herbal supplements important to mention because they are usually not prescribed by a physician. However, this information is crucial because OTC medications, vitamins, and herbal supplements frequently interact with prescription medications, which may be the cause of the patient's problem or may contribute to it.

Chap 12

1. **Answer:** C Cardiogenic shock.
2. **Answer:** A Compensated.
3. **Answer:** A High-flow oxygen
4. **Answer:** B Fowler's position
5. **Answer:** C The pump (heart)
6. **Answer:** D Homeostasis
7. **Answer:** Signs of decompensated shock include a decreased level of consciousness, ashen or cyanotic skin, thready pulses, labored or irregular respirations, and a systolic blood pressure of less than 90 mm Hg.
8. **Answer:** Shock, also called hypoperfusion, is a condition in which the circulatory system fails to provide sufficient circulation to enable every body part to perform its function.
9. **Answer:** Carbon dioxide is transported in the blood from tissues back to the lungs in three ways: dissolved in the plasma, combined with water in the form of bicarbonate, or attached to hemoglobin.
10. **Answer:** People often have a sixth sense when the end of life is near. A feeling of impending doom or feeling like one is going to die can indicate that the patient is feeling that death is imminent, which is a sign of decompensated shock.

Chap 13

1. **Answer:** B Early CPR and defibrillation
2. **Answer:** A resume chest compressions.
3. **Answer:** B 10 seconds
4. **Answer:** D 2 inches to 2.4 inches (5 cm to 6 cm); 100 to 120
5. **Answer:** B 30:2
6. **Answer:** C Brachial
7. **Answer:** C 2
8. **Answer:** C Chest compressions
9. **Answer:** After you have initiated CPR in the field, you are committed to continuing resuscitation efforts until one of the following events occur: the patient regains spontaneous breathing and circulation; you transfer care to another BLS, ALS, or other emergency care provider; you are physically too tired to continue; or you receive medical direction to stop.
10. **Answer:** Gastric distention can be lethal, especially in an unresponsive patient who requires artificial ventilation. The additional air displaced into the stomach by performing ventilations too fast or with too much force may cause the patient to vomit during CPR, or make it more difficult for you to deliver breaths because the stomach is pressing up on the diaphragm.

Chap 14

1. **Answer: C** Determine scene safety.
2. **Answer: D** The patient needs immediate intervention.
3. **Answer: D** primary assessment.
4. **Answer: B** SAMPLE
5. **Answer: C** Vital signs
6. **Answer: A** Gloves only
7. **Answer: B** A disease that can be spread from one person or species to another
8. **Answer:** Where did you recently travel?
Did you receive any vaccinations before your trip?
Were you exposed to any infectious diseases?
Is there anyone else in your travel party who is sick?
What types of food did you eat?
What was your source of drinking water?
9. **Answer: HIV, hepatitis B, meningitis, tuberculosis, H1N1, MERS-CoV, and Ebola**
10. **Answer: T** Tobacco
 - A** Alcohol
 - C** Caffeine
 - O** Over-the-counter medication and herbal supplements
 - S** Sexual and street drugs

Chap 15

1. **Answer: B** Albuterol
2. **Answer: C** Asthma involves excessive mucous production.
3. **Answer: A** Pursed lip breathing
4. **Answer: B** Nonrebreathing mask at 15 L/min
5. **Answer: C** 6 L/min
6. **Answer: D** Bronchitis
7. **Answer: A** Vomiting
8. **Answer:** Chronic bronchitis is a condition resulting in ongoing irritation of the trachea and bronchi. Excess mucus production causes obstruction of the smaller airways. Further weakening of the airways results from a loss of protective cells and mechanisms needed to remove foreign particles from the airways. While there are numerous causes of chronic bronchitis, cigarette smoking is the most notorious. Emphysema, also predominately caused by tobacco smoke, involves the loss of elastic material around the air spaces as a result of chronic stretching of the alveoli when inflamed. As a result of diminished elasticity, air is no longer expelled rapidly from the alveoli, and the walls of the alveoli and surrounding small airways bloat to trap air and collapse easily after exhalation.
9. **Answer:**
 - Dyspnea
 - Acute chest pain
 - Hemoptysis (coughing up blood)
 - Cyanosis

- Tachypnea
- Varying degrees of hypoxia

10. Answer: Unlike many other toxic gases, carbon monoxide is odorless, colorless, and tasteless. Carbon monoxide results from incomplete oxidation of carbon in combustion. Commonly produced by household appliances, such as gas water heaters, grills, and generators, this toxic gas is the leading cause of accidental poisoning deaths in the United States. Symptoms of carbon monoxide poisoning are vague and mimic other conditions, such as the flu, making it very difficult to recognize. Carbon monoxide poisoning results in hypoxia to tissues of body and can result in permanent organ damage and death. EMS providers need to take extreme caution when carbon monoxide poisoning is suspected to protect themselves from possible exposure.

Chap 16

- 1. Answer:** B The lungs
- 2. Answer:** C Cardiogenic
- 3. Answer:** B Oxygen and transport in a position of comfort
- 4. Answer:** D The blood pressure of 90/50 mm Hg with a history of hypertension
- 5. Answer:** A A pulse oximetry measurement and a list of medication allergies
- 6. Answer:** B His blood pressure is too low.
- 7. Answer:** D Administer aspirin if he is not allergic to it.
- 8. Answer:** C Have your partner pull the ambulance over and come back to help you with CPR and the AED.
- 9. Answer:** From the body to the right atrium, through the tricuspid valve, to the right ventricle, through the pulmonic valve, to the pulmonary artery, to the lungs, to the pulmonary veins, to the left atrium through the mitral valve, to the left ventricle through the aortic valve, out the aorta to the body
- 10. Answer:** A state in which not enough oxygen is delivered to the tissues of the body, caused by low output of blood from the heart

Chap 17

- 1. Answer:** A Maintaining the ABCs
- 2. Answer:** C Cincinnati Prehospital Stroke Scale Assessment
- 3. Answer:** A Ischemic stroke
- 4. Answer:** B Neglect
- 5. Answer:** A A seizure lasting greater than 30 minutes
- 6. Answer:** C Hypoglycemia
- 7. Answer:** C Hypoglycemia
- 8. Answer:** Have the patient smile and frown; have the patient hold his or her arms out with palms up and eyes closed; have the patient repeat the sentence, "The sky is blue in Cincinnati."
- 9. Answer:** Stroke is a loss of brain function in certain brain cells that do not get enough oxygen, resulting in permanent damage. A TIA is a disorder of the brain in which brain cells temporarily stop functioning because of insufficient oxygen, causing stroke-like symptoms that resolve within 24 hours of onset.
- 10. Answer:** Stroke patients who receive treatment within the first few hours of the onset of stroke symptoms have a much greater chance of surviving and avoiding long-term brain damage. Patients with ischemic strokes, the most common type of stroke, may be candidates for treatment with tissue plasminogen activator (tPA), but this drug must be given within the first few hours after a stroke, ideally within the first hour of arrival in the ED to have the best chance of reversing the symptoms. Therefore, noting the time of symptom onset and transporting to a stroke center are crucial steps because the time helps

determine whether the treatment can be administered, and transport to a stroke center ensures the patient is delivered to a facility that can deliver the specific treatment.

Chap 18

1. **Answer: A** Peptic ulcers
2. **Answer: A** hematemesis.
3. **Answer: D** guarding.
4. **Answer: B** Ulcerative colitis
5. **Answer: C** esophageal varices.
6. **Answer: D** **placing the patient supine.**
7. **Answer: B** Blood pressure
8. **Answer:** The patient's past medical history provides important clues. He has a history of an enlarged liver, high blood pressure, and alcoholism. He presented with severe abdominal pain and vomiting bright red blood and stated that his last oral intake was a six-pack of beer. The primary cause of esophageal varices is portal hypertension, which is associated with an enlarged liver due to hepatitis or alcohol abuse. This knowledge combined with your findings supports your working diagnosis of esophageal varices.
9. **Answer:** Many illnesses related to the abdomen share the same signs and symptoms, making your job a bit more challenging. While obtaining your SAMPLE history, be sure to include such information as the patient's state of general health, any childhood or adult diseases, any recent surgeries or hospitalizations, the presence of any psychiatric or mental illnesses, and any exposure to trauma. Although this information will not enable you to make a conclusive field diagnosis, it will provide you with possible insight into the patient's current status and what problems may lie ahead.

Chap 19

1. **Answer: C** glucose
2. **Answer: C** glucagon
3. **Answer: C** rapid drops in their blood glucose levels.
4. **Answer: A** Brain
5. **Answer: B** When was the last time you ate?
6. **Answer: D** Pale, moist skin
7. **Answer: B** 80 mg/dL
8. Any three of the following would be appropriate answers.
 - Polyuria—increased frequency and volume of urination
 - Polydipsia—insatiable thirst
 - Polyphagia—increased appetite with no appreciable weight gain
 - Ketone odor on breath—fat breakdown by-product
 - Kussmaul respirations—metabolic respiratory response
 - Gastrointestinal upset with elevated blood glucose levels
9. Hyperglycemia is high blood glucose. Hypoglycemia is low blood glucose.

Hypoglycemia (low blood glucose level) is an emergent event that needs to be treated immediately with sugar supplementation. If the patient is conscious, oral glucose may be used if there is a gag reflex. If the patient has become unconscious, immediate transport to definitive care may be the only treatment option for the EMT in many instances.

Ignored or unrecognized hyperglycemia can be lethal in the long term. Providing comfortable transport to definitive care while maintaining the ABCs is largely the best course of treatment the EMT can administer.
10. The patient is likely experiencing one of these:
 - Hypoglycemia secondary to changes in routine
 - Dehydration secondary to improper fluid replacement during the sporting event

Chap 20

1. **Answer: C** urticaria.
2. **Answer: C** Treat for shock.
3. **Answer: A** Histamine
4. **Answer: B** Epinephrine
5. **Answer: A** A high-pitched, whistling sound caused by bronchoconstriction
6. **Answer:** Remove the bracelet. As swelling increases, there is a risk that the jewelry will become constrictive and difficult to remove later. This could result in reduced perfusion to the extremity.
7. **Answer:** You should agree to the use of albuterol, as the patient has a history of asthma and exhibits wheezing, which is an indication of lower airway obstruction. Because the primary effect of albuterol is bronchodilation, the inclusion of this treatment could be beneficial.
8. **Answer:** This is a normal side effect of epinephrine. The tachycardia is the result of the drug's stimulation of the body's stress response, and therefore the patient experiences an increased heart rate, increased workload on the heart, and increased demand for oxygen by the heart. Therefore, you should reassure the patient that this effect is normal.
9. **Answer:** Some examples include: sepsis (a rash may indicate wide-spread infection), or an anxiety attack (the patient is anxious and breathing rapidly). In an adult patient, pulmonary embolus would also be a possibility, though it is not very likely in a child.

Chap 21

1. **Answer: D.** Take vital signs.
2. **Answer: C.** Heroin
3. **Answer: C.** Venous scarring (track marks)
4. **Answer: D.** 30 minutes to 1 hour
5. **Answer: C.** Stage around the corner and wait for police to declare the scene safe.
6. **Answer: B.** No
7. **Answer:** A patient in alcohol withdrawal may experience delirium tremens. The condition is characterized by delusions, hallucinations, agitation or restlessness, fever, sweating, tremors, confusion, and seizures. Hallucinations come and go, can be auditory or visual, and can be frightening. Delirium tremens can develop about 1 to 7 days after a person stops drinking or when alcohol consumption levels are decreased suddenly.

Assess the patient and provide prompt transport. Manage seizures as you would any other seizure. Protect the patient from self-injury. Provide oxygen as needed. Watch carefully for vomiting; have suction ready. Watch for signs of hypovolemic shock. Use a calm, relaxed approach, reassure the patient, and provide emotional support.
8. **Answer:** The four routes by which toxins enter the body are inhalation, absorption (surface contact), ingestion, and injection. Examples of inhaled toxins include natural gas, sewer gas, certain pesticides, carbon monoxide, chlorine, or other gases. Examples of absorbed toxins include acids, alkalis, and some petroleum (hydrocarbon) products, poison ivy, and poison oak. Examples of ingested toxins include liquids, household cleaners, contaminated food, plants, alcohol, and drugs. Examples of injected toxins include medications or illicit drugs, and envenomation by insects, arachnids, and reptiles.
9. **Answer:** One example is lysergic acid diethylamide (LSD). Like other hallucinogens, LSD causes visual hallucinations, intensifies vision and hearing, and generally separates the user from reality. This can be terrifying. The experience is sometimes referred to as a "bad trip." Patients will usually have hypertension, tachycardia, anxiety, and paranoia.

Another example is phencyclidine (PCP, or angel dust). PCP is a dissociative anesthetic that is easily synthesized and highly potent. Its effectiveness by oral, nasal, pulmonary, and intravenous routes makes it easy to add to other street drugs. It is dangerous because it causes severe behavioral changes in which people often inflict injury on themselves.

Care for a patient who is having a bad reaction to a hallucinogenic agent is the same as that for a patient who has taken a sympathomimetic.

10. Answer: Ideally, naloxone is administered via the IV route. However, IV access can be difficult to obtain in chronic users of illicit intravenous drugs such as heroin. These patients have venous scarring (track marks) from repeated use of needles. Some EMS systems allow EMTs to administer naloxone via the intranasal route. Prior to administering intranasal naloxone, place an oropharyngeal airway and ventilate the patient using a BVM to decrease the risk of permanent brain damage, and a violent emergence from the apneic state related to hypoxia. Watch the patient closely; as the level of consciousness rises, the patient will no longer tolerate the oropharyngeal airway and you will have to remove it to prevent aspiration.

Chap 22

- 1. Answer:** C. His wife said he has had constant angry outbursts.
- 2. Answer:** D. He believes it was an IED rather than fireworks.
- 3. Answer:** C. Posttraumatic stress disorder
- 4. Answer:** C. Come with me, and let's go to a place where they can help you.
- 5. Answer:** C. Glucose, if ALS confirms that the level is low.
- 6. Answer:** D. No, it may simply aggravate the situation.
- 7. Answer:** A. A person's altered consciousness can allow him or her to continue functioning under negative conditions.
- 8. Answer:** You should never enter a scene where there is a potential for violence; in such a case, you should always request a response from police, if they are not already there. You should know where there is a safe egress if you need it, and park the ambulance in a place and direction that will allow for a hasty retreat if necessary. Before approaching the patient, be certain police have checked for and relieved the patient of any weapons or potential weapons.
- 9. Answer:** Charlie's medical issues could result from diabetic ketoacidosis or hypoglycemia, head injury, hypertensive crisis, or dehydration, or a combination of these conditions. One of the biggest concerns is that his blood glucose level may be too high or too low. It could be too high if he is insulin dependent and has not taken insulin, or too low because he has not eaten. This could also be a significant factor driving his behavior. His behavior could also be due to his head injury; his head is bleeding and he is complaining of a headache. It is also possible for returning combat veterans to have experienced a concussion during the initial IED explosion. If Charlie's blood pressure is controlled by medication, it could be out of normal range and could cause problems. Finally, considering the way Charlie is dressed, he could be dehydrated.
- 10. Answer:** You always want to appear relaxed and in control when facing a patient who is anxious and agitated or fearful. Using a relaxed and friendly tone will help him understand that you are honestly interested in helping him. Introducing yourself helps him relate to you as a person, and using his name helps him to bond with you. Even though he does not appear to be dangerous, the behavior of any patient with psychological problems can change without warning.

Chap 23

- 1. Answer: C** Call for a female EMT.
- 2. Answer: A** quickly identifying any life-threatening injuries.
- 3. Answer: B** Inform the husband his wife has a potential life-threatening problem.
- 4. Answer: D** Bleeding of unknown origin
- 5. Answer: D** Place a sanitary pad over the vaginal opening.
- 6. Answer: C** Transport to the hospital
- 7. Answer: D** Diagnosis
- 8. Answer: C** Reassess vital signs and primary assessment.
- 9. Answer:** Possible causes of vaginal bleeding include menstruation, abnormal menstruation, ectopic pregnancy, spontaneous abortion, cervical polyps, and even cancer.
- 10. Answer:** For a report of abdominal pain, ask specific questions about onset, duration, quality, and radiation. Provoking or relieving factors and associated symptoms such as syncope, light-headedness, nausea, vomiting, and fever are also relevant. For a report of vaginal bleeding, ask about onset, duration, quantity (number of pads saturated), and associated symptoms such as syncope and light-headedness.

Chap 24

1. **Answer:** C Scene size-up
2. **Answer:** A Blunt
3. **Answer:** C 13
4. **Answer:** B Head
5. **Answer:** D Call for an ALS unit to respond to the scene or intercept the BLS transport.
6. **Answer:** C Awareness that due to the mechanism of injury, unseen injuries may be present
7. **Answer:** You might suspect head injury, neck injury, pulmonary contusions, myocardial contusions, abdominal injury, internal bleeding, and pelvic injuries.
8. **Answer:** Yes, the patient meets the criteria for rapid transport because he has sustained multisystem trauma.
9. **Answer:** A coup-contrecoup injury is a brain injury that occurs when force is applied to the head and energy transmission through the brain tissue causes injury on the opposite side of the original impact.
10. **Answer:** The collision of the car against some type of object. The collision of the passenger against the interior of the car. The collision of the passenger's internal organs against the solid structures of the body.

Chap 25

1. **Answer:** A Scene safety
2. **Answer:** C Level of consciousness
3. **Answer:** A a skull fracture.
4. **Answer:** C Administer oxygen.
5. **Answer:** A Internal bleeding
6. **Answer:** C rapid transport.
7. **Answer:** A Supine
8. **Answer:** The pain is likely the result of internal injuries. Since there are no apparent external deep or mortal wounds, it can be assumed that the pain is a result of internal injury.
9. **Answer:** A blast injury can present a varied amount of projectiles that can injure victims within the blast radius. These injuries can be very serious.
10. **Answer:** Hypotension is a late sign of shock, indicating decompensation. Given the patient's presentation with contusions to his chest and abdomen, he most likely has severe internal bleeding. He needs prompt transport to a trauma center.

Chap 26

1. **Answer:** B Partial-thickness
2. **Answer:** D keep the airway open.
3. **Answer:** B Thermal burn
4. **Answer:** C 9%
5. **Answer:** D Stop the bleeding.
6. **Answer:** A Contusion on the right lateral chest
7. **Answer:** Yes, it is a severe or critical burn because it involves the face.
8. **Answer:** The rule of nines is a system that assigns percentages to sections of the body, allowing calculation of the amount of skin surface involved in the burn area.
9. **Answer:** Apply direct pressure with a sterile bandage. Maintain pressure with a roller bandage. If bleeding continues, apply a second dressing and roller bandage over the first. If bleeding is profuse and cannot be managed with direct pressure, apply a tourniquet to avoid further blood loss and to allow you to quickly focus on providing other treatments for shock.
10. **Answer:** Treat a closed injury with rest, ice, compression, elevation, and splinting.

Chap 27

1. **Answer:** D Assess the airway, breathing, and circulation.
2. **Answer:** C Suction the airway and assist with ventilations with a bag-valve mask.
3. **Answer:** A Brain
4. **Answer:** C Oropharyngeal airway
5. **Answer:** B Air
6. **Answer:** D Bleeding in the anterior chamber of the eye
7. **Answer:** A Basilar skull fracture
8. **Answer:** C a collection of blood within the tissues.
9. **Answer:** Rapid transport is indicated for this patient because the patient is exhibiting signs of hypoperfusion: tachycardia; tachypnea; hypotension; weak pulse; and cool, pale, and moist skin. With injuries to the face or neck, if signs of shock are present, treat the patient aggressively for shock and provide rapid transport to the appropriate hospital.
10. **Answer:** Perform the halo test to see if CSF is escaping from the skull. This test is performed by placing a piece of gauze under the nose or ear to absorb any blood. If CSF is present, the blood will be surrounded by a lighter ring of fluid.

Chap 28

1. **Answer:** D an epidural hematoma.
2. **Answer:** B An ALS intercept
3. **Answer:** A Head
4. **Answer:** A lucid interval
5. **Answer:** B Decreased level of consciousness, confusion, nausea
6. **Answer:** C Increased intracranial pressure
7. **Answer:** D Temporal
8. **Answer:** An epidural hematoma is the accumulation of blood between the skull and the dura mater (lining of the brain). The patient often experiences an immediate loss of consciousness followed by a brief period of consciousness. The patient may experience confusion, nausea, vomiting, and agitation. A subdural hematoma is an accumulation of blood below the dura mater but outside of the brain. Subdural hematomas usually occur after a rapid deceleration force and are more common than epidural hematomas. Symptoms of a subdural hematoma usually present slower because the bleeding is related to the rupture of veins that bridge the cerebral cortex and dura. This patient will often present with fluctuating levels of consciousness or slurred speech.
9. **Answer:** A primary, or direct, injury is an injury to the brain and its associated structures that results instantaneously from impact to the head. A secondary, or indirect, injury occurs as a result of the primary injury. Examples of secondary injuries include cerebral edema, intracerebral hemorrhage, infection, hypoxia, and increased intracranial pressure.
10. **Answer:** The brain is very sensitive to low levels of perfusion and oxygen. By carefully monitoring your patient, recognizing hypoxia and/or hypotension, and properly managing your patient, you can help prevent secondary brain injury resulting from these serious changes.

Chap 29

1. **Answer:** C Administer high-flow oxygen.
2. **Answer:** B Rib fractures
3. **Answer:** D upper airway obstruction.
4. **Answer:** C **Intercostal artery or vein**
5. **Answer:** A Every 5 minutes
6. **Answer:** C Pulse oximeter
7. **Answer:** B Tension pneumothorax
8. **Answer:** B Call for ALS assistance and continue transport.
9. **Answer:** A great deal of anatomy lies underneath the ribs. A rib fragment can puncture any of these structures, causing further problems. In the case of a tension pneumothorax, a piece of the fractured rib punctures underlying lung tissue, causing air to escape into the pleural cavity and placing pressure on the lung, causing it to collapse. If a significant portion (30% to 40%) of the lung collapses, it begins to compress the great vessels, impeding blood return to the heart, which causes JVD, as well as pressing against the trachea, which causes tracheal deviation.
10. **Answer:** The spinal nerves originating in the cervical regions C6 and C7 provide nervous stimulation to the intercostal muscles, providing the ability for the thoracic cage to elevate during inspiration.

Chap 30

1. **Answer:** D appendix.
2. **Answer:** A advanced life support intercept.
3. **Answer:** D Shock resulting from blunt trauma
4. **Answer:** B liver.
5. **Answer:** D Spleen and stomach
6. **Answer:** D Pancreas and spleen
7. **Answer:** B tachypnea and tachycardia.
8. **Answer:** B Hematuria
9. **Answer:** Peritonitis is caused by blood, stomach, or urinary bladder contents emptying into the peritoneal cavity.
10. **Answer:** Guarding is contracting the abdominal wall muscles to minimize the movement of the contents within the peritoneum. Guarding is a sign of peritonitis. For this patient, guarding should raise suspicion that significant internal injuries have occurred. The signs of shock and the patient's symptoms reflect a life-threatening emergency.

Chap 31

1. **Answer:** C direct blow.
2. **Answer:** B point tenderness.
3. **Answer:** B dorsalis pedis
4. **Answer:** C severe.
5. **Answer:** B avoid further neurovascular compromise.
6. **Answer:** B Use a scoop stretcher.
7. **Answer:** A 5 to 10
8. **Answer:** Yes. Even though the patient's vital signs are stable for now, a fracture of the femur can result in 500 to 1,000 mL of blood loss. The pelvis fracture will also increase the amount of blood loss.
9. **Answer:** The patient has sustained pelvic fractures and bilateral femur fractures, all of which can result in significant blood loss. For example, many blood vessels are attached to the pelvis; if they are lacerated, they can cause a considerable blood loss. Additionally, each femur fracture can lead to a blood loss of 500 to 1,000 mL. It is vital that you reassess for signs of shock and treat the patient immediately. Don't forget to notify the receiving hospital so they can be prepared to resuscitate the patient if necessary.
10. **Answer:** While most musculoskeletal injuries are not life threatening, they can lead to long-term disability. As an EMT, you can help reduce the risk or length of long-term disability by preventing further injury, cleaning and dressing open wounds, decreasing the patient's level of pain by applying ice and/or arranging for the patient to receive pain medication, and making sure the patient is transported to a facility that is capable of treating his or her injuries. Remember, you can influence the future by your actions or inactions in the present.

Chap 32

1. **Answer:** A Establish manual cervical spine immobilization.
2. **Answer:** B 95°F (35°C)
3. **Answer:** C 30 to 45 seconds
4. **Answer:** C severe.
5. **Answer:** D acclimatization to cold.
6. **Answer:** B 90°F (32°C)
7. **Answer:** A Ventricular fibrillation
8. **Answer:** D placing heat packs on the patient's extremities.

9. **Answer:** Physicians are split on the topic of CPR in patients with severe hypothermia. One school of thought is that the body is chilled to a state where it requires minimum metabolic support. Therefore, a heart rate as low as 1 to 2 beats per minute should be sufficient until the body begins to warm. As the body warms, the heart rate will increase. However, there is evidence showing that correctly performed CPR will provide blood to the critical areas of the body. The current American Heart Association guidelines recommend that CPR be initiated if the patient has no pulse or breathing.
10. **Answer:** Young children and infants are unable to dress and care for themselves; therefore, they are more vulnerable to their environmental surroundings. Remember that both children and infants have a relatively large surface area and less body fat than adults. Additionally, children may not be able to shiver as effectively as adults, and infants are unable to shiver until about 12 to 18 months.

Chap 33

1. **Answer:** C uterine contractions began.
2. **Answer:** D it can lead to eclampsia and seizures
3. **Answer:** C Is this your first baby?
4. **Answer:** B the presence of meconium.
5. **Answer:** D Try to slip the cord gently over the head.
6. **Answer:** A Gently rub the newborn's back.
7. **Answer:** C palpate the brachial pulse.
8. **Answer:** A Heart rate
9. **Answer:** Newborns are airway dependent. If their airway is not kept patent and/or they are not breathing adequately at a rate of 40 to 60 breaths/min, respiratory arrest can occur, followed shortly by cardiac arrest. Therefore, you must pay close attention to the airway and breathing status of a newborn. If you need to provide ventilatory assistance to a newborn, you must use an infant BVM. Covering both the nose and the mouth of the newborn with the mask, deliver breaths at a rate of 40 to 60 breaths/min. Make sure that the BVM is attached to a high-flow oxygen source and that you squeeze the bag gently, using just enough pressure to achieve subtle chest rise.
10. **Answer:** Meconium is fetal stool. The presence of meconium in the amniotic fluid signifies the presence of fetal distress. Meconium can range from being thin and light green to thick and dark green. If the newborn inhales meconium during or after delivery, the risk of developing respiratory distress and pneumonia is high. If you see meconium, notify the receiving hospital so they will be prepared to treat the newborn.

Chap 34

1. **Answer:** D Head injury
2. **Answer:** A Pediatric assessment triangle (PAT)
3. **Answer:** B Head injury
4. **Answer:** D Age-appropriate responses to your questions
5. **Answer:** B Postictal state
6. **Answer:** A 30 minutes
7. **Answer:** B Secure and clear the airway.
8. **Answer:** A Level of consciousness
9. **Answer:** Seizure activity in infants may be easy to overlook, as it often manifests in subtle movements such as an abnormal gaze, sucking motion, or "bicycling" movement of the lower extremities. When a child's body ages and matures, seizure activity will present as the repetitive muscle contraction and relaxation (tonic-clonic) motion more frequently associated with seizure activity.
10. **Answer:** Observing a child's level of consciousness or interaction with his or her environment and muscle tone will provide important information about perfusion to the brain. Remember that the brain is a greedy organ requiring a significant portion of the body's blood flow and sugar supply. When the brain is deprived of oxygen and/or sugar, the body will respond by creating an altered mental status and abnormal muscle tone.

Chap 35

1. **Answer:** B Listen carefully to the answers the patient provides.
2. **Answer:** D Paroxysmal nocturnal dyspnea
3. **Answer:** C “How many pillows do you sleep on?”
4. **Answer:** C fluid in the alveoli.
5. **Answer:** A Poor circulation
6. **Answer:** B environmental
7. **Answer:** A Coronary artery disease
8. **Answer:** As people age, the size of their support network tends to decrease as their children move away and their spouse and friends die. Medical conditions may render an older person incapable of performing even the most basic activities of daily living, and often they are in considerable need of assistance. Your keen observations and documentation are frequently the catalyst for getting the help required by your patient.
9. **Answer:** It is a fact that many medications are expensive and health insurance may not cover all or any of the cost. It is also a fact that many older people live on a fixed income, and this combination of facts results in a situation where older people are faced with the challenge of making both their medication and money last. Some common solutions used by geriatric patients include spreading out the doses of their medications to make them last longer, not refilling their prescriptions, and sharing medications with family and friends. None of these solutions is optimal and all can cause either a deterioration in the patient’s conditions because of a lack of treatment or new problems from taking medication not meant for him or her. It is important to document these findings and share them with the staff at the hospital so they can assess the situation and get the proper people involved.

Chap 36

1. **Answer:** C “What can you tell me about the patient’s normal functional level? What makes her feel secure?”
2. **Answer:** B Speak normally and provide simple, one-step directions.
3. **Answer:** B Start distal to proximal.
4. **Answer:** C ask her simple, direct questions.
5. **Answer:** A look around for a favorite toy or object and ask the patient about it.
6. **Answer:** B Auditory sensitivity
7. **Answer:** D use gestures the patient can understand and explain what is happening.
8. **Answer:** A allow the patient to continue as long as she does not hurt herself.
9. The “reverse stethoscope” technique is used to assist you when communicating with a patient who has a hearing loss. Simply place the earpieces of the stethoscope into the ears of your patient and speak softly into the diaphragm. Using this technique will amplify your voice and improve communication.
10. Patients with Down syndrome often have a large tongue and small oral and nasal cavities. These anatomic differences can make airway management challenging. An airway obstruction may be overcome by using the jaw-thrust maneuver to lift the tongue off the back of the throat. If a patient with an airway obstruction becomes unconscious, a nasopharyngeal airway can be inserted to help alleviate the blockage.

Chap 37

1. **Answer:** D National Research Council of the National Academy of Sciences
2. **Answer:** B Drive faster than the posted speed limit.
3. **Answer:** C cushion of safety.
4. **Answer:** D Stress
5. **Answer:** C en route
6. **Answer:** C Ask for additional resources.
7. **Answer:** B 4
8. **Answer:** A uphill and upwind.
9. **Answer:** Because lights and sirens can exacerbate anxiety, using them with a patient having chest pain is not always the best option. However, when weighing the risks versus the benefits for this patient, it may be in her best interest to transport her with lights and sirens to the closest, most appropriate facility depending on traffic, distance and road conditions. She is borderline hypotensive, complaining of severe pain, and tachycardic with an irregular pulse, and has labored respirations that are a little fast. All of these factors together create a potentially unstable patient who needs access to advanced care quickly. Consider consulting medical control for advice about use of lights and sirens on a particular call depending on your local protocol.
10. **Answer:**
 - The area should be a hard or grassy level surface that measures 100 feet × 100 feet (recommended) and no less than 60 feet × 60 feet. If the site is not level, the flight crew must be notified of the steepness and direction of the slope.
 - The area must be cleared of any loose debris that could become airborne and strike the helicopter or the patient and crew; this includes branches, trash bins, flares, caution tape, and medical equipment and supplies.
 - You must survey the immediate area for any overhead or tall hazards such as power lines or telephone cables, antennas, and tall or leaning trees. The presence of these must be relayed immediately to the flight crew because an alternative landing site may be required. The flight crew may request that the hazard be marked or illuminated by weighted cones or by positioning an emergency vehicle with its lights turned on next to or under the potential hazard.
 - To mark the landing site, use weighted cones or position emergency vehicles at the corners of the landing zone with headlights facing inward to form an X. This procedure is essential during night landings as well. Never use caution tape or ask people to mark the site. The use of flares is also not recommended, because not only can they become airborne, but they also have the potential to start a fire or cause an explosion.
 - Move all nonessential people and vehicles to a safe distance outside of the landing zone.

If the wind is strong, radio to the flight crew the direction of the wind. They may request that you create some form of wind directional device to aid their approach. A bed sheet tightly secured to a tree or pole may be used to help the crew determine wind direction and strength. Never use tape

Chap 38

1. **Answer:** A Uphill and upwind from the hazard
2. **Answer:** C To assess and provide immediate medical care
3. **Answer:** A Opening a rear door
4. **Answer:** D only after all patients have been triaged.
5. **Answer:** C Wait for the power company to tell you the scene is safe before approaching either vehicle.
6. **Answer:** B Immediately cease care and leave the scene.
7. **Answer:** Extrication equipment, fire suppression, law enforcement, utility companies, HazMat units, advanced life support units, and air transport.

8. **Answer:** A hazardous material is any substance that is toxic, poisonous, radioactive, flammable, or explosive and can cause injury or death with exposure.
9. **Answer:**
 F – Failure to understand the environment or underestimating it
 A – Additional medical problems not considered
 I – Inadequate rescue skills
 L – Lack of teamwork or experience
 U – Underestimating the logistics of the incident
 R – Rescue versus recovery mode not considered
 E – Equipment not mastered
10. **Answer:**
 1. Provide manual stabilization to protect the cervical spine, as needed.
 2. Open the airway.
 3. Provide high-flow oxygen.
 4. Assist or provide for adequate ventilation.
 5. Control any significant external bleeding.
 6. Treat all critical injuries.

Chap 39

1. **Answer:** B Polyethylene
2. **Answer:** A Cylinder
3. **Answer:** D Begin as if they have not received any treatment.
4. **Answer:** C The EPA establishment number
5. **Answer:** C. Material Safety Data Sheets
6. **Answer:** A. Hot zone
7. **Answer:** D. Cold zone
8. **Answer:** C. Level 3
9. **Answer:**
- The name of the chemical(s) involved in the incident (if known)
 - Name of the caller and callback telephone number
 - Location of the incident or problem
 - Shipper or manufacturer of the chemical (if known)
 - Container type
 - Railcar or vehicle markings or numbers
 - The shipping carrier's name
 - Recipient of material
 - Local conditions and exact description of the situation
10. **Answer:** As an EMT, your job is to report to a designated area outside of the hot and warm zones and provide triage, treatment, transport, or rehabilitation when HazMat team members bring patients to you.

Chap 40

1. **Answer:** A Upwind and uphill from the incident
2. **Answer:** A The incident commander best understands incident needs.
3. **Answer:** B Potential permanent hearing loss
4. **Answer:** D Pulmonary blast injury
5. **Answer:** A Hollow organ injury
6. **Answer:** B Head and neck
7. **Answer:** B Solid organ
8. **Answer:** Primary blast injury (shockwave) is due to the direct effects of the pressure wave on the body seen almost exclusively in the hollow organs of the body—lungs, intestines, and inner ears. Lung injury causes the greatest morbidity and mortality. Secondary blast injury causes penetrating or blunt injury that results from being struck by flying debris set in motion by the explosion. Tertiary blast injury occurs when there is traumatic impact with environmental objects (often when a body propelled into the air comes to rest.)
9. **Answer:** Try to get a history on how close the patient was to the blast and what happened. Was there a collapse of a structure that could have caused a crush injury? Proximity to the blast will help determine whether the patient suffered from primary, secondary, or tertiary blast trauma. Were there toxic effects from the inhalation of combustion gases? Are there baseline mentation or communication problems that should be factored in? Is age an issue that may make injury more serious or recovery more difficult? Good patient care will also take into consideration the psychological effects of being a victim of a WMD, witnessing trauma to others, or perhaps losing a loved one.
10. **Answer:** Pulmonary agents, such as chlorine and phosgene, cause immediate damage because they are inhaled by the victims. Once exposed to the chemical, lung tissue is damaged and fluid is allowed to enter. This results in the acute onset of pulmonary edema. Patients exposed to a pulmonary agent will present with an increased work of breathing demonstrated by tachypnea, tachycardia, and anxiety.