

Answers to Assessment in Action and Points to Ponder

Section 1: Preparing to be an EMT-B

Chapter 1: Introduction to Emergency Medical Care

Assessment in Action

1. B. Intravenous therapy

The role of the EMT-B has been revised and expanded by the DOT. This makes it even more important for students to be able to define their scope of practice.

2. B. Wait for the paramedic to arrive, since it is above your scope of practice.

This type of situation can be overwhelming to the newly certified EMT-B and this should be discussed so that the EMT-B knows the scope of practice.

3. B. Medical Director

The DOT sets the standards of training. The EMS directors and emergency department physicians certainly help mold the protocols. It is the responsibility of the medical director, however, to write and approve the protocols. The system practices under the license of the medical director.

4. D. All of the above

It is important for the EMT-B to be proficient in all aspects of EMS.

5. C. Continuing education is vital to successful EMS systems as medicine and technology is ever changing.

It is important for the student to be receptive to other medical professionals, be compassionate to all who call for help, and understand that the education is an ongoing process.

6. Continuous quality improvement provides an ongoing system of audits and reviews that ensures that the public receives the highest standard of patient care.

7. It is important that every patient be treated with compassion and understanding. Even though you may feel that a call is not a real emergency, the person who activated the 9-1-1 system believes it was.

Points to Ponder

It is important for the EMT-B student to understand that intoxicated patients can be very challenging. It would be easy to write this patient off, but patients who exhibit this kind of behavior often have developed chronic medical problems. Instigating and threatening an intoxicated patient can only worsen the situation. It would be proper to discuss your concerns with your partner as an initial action, then follow the chain of command if the problem isn't resolved.

Chapter 2: The Well-Being of the EMT-B*Assessment in Action*

1. B. as soon as you are dispatched.

You should begin implementing BSI precautions as soon as you are dispatched.

2. A. body substance isolation.

EMT-Bs must understand the importance of BSI precautions. BSI is an infection control concept and practice that assumes that all body fluids are potentially infectious. EMT-Bs need to practice BSI precautions to protect themselves from infection on the job.

3. B. using general adaptation syndrome.

The three-stage process in dealing with stress includes alarm, reaction, and resistance. This is known as the general adaptation syndrome.

4. A. burnout.

Mounting stress over time can lead to a condition of chronic fatigue and frustration known as burnout.

5. D. sensitive to everyone's needs.

Communication is most effective when it is sensitive to everyone's needs.

6. B. exposure.

Exposure is clearly defined as contact with blood, body fluids, or tissues.

7. D. agency's exposure control plan.

An exposure control plan is a comprehensive plan that incorporates CDC guidelines, OSHA regulations, NFPA Infection Control Standard 1581, and other applicable state and local

regulations. The EMT-B should follow this plan if he or she comes into contact with potentially infectious materials.

8. Kubler-Ross's stages of grief include denial, anger-hostility, bargaining, depression, and acceptance. Stages may follow one another, occur simultaneously, or occur in any order. The stages may last different amounts of time.

9. Major emphasis should be on the ABCs with the help of the parent or caregiver. The EMT-B may experience increased stress in treating sick children.

10. The four means of transmission are direct, indirect, vector, and airborne. Direct contact is contact, directly either with the person or with droplets sprayed (eg, by sneezing, coughing contact). Indirect transmission occurs when a disease is spread by inanimate objects (eg, food, needles, clothing, transfused blood). Vector-borne transmission occurs when the disease is transmitted by something carrying the disease, such as an insect. Airborne transmission occurs from residues after partial evaporation of droplets.

11. EMT-Bs have a duty to treat patients regardless of their conditions. Treating patients with certain infections, such as human immunodeficiency virus, can be very stressful.

Points to Ponder

This scenario covers a lot of issues including communication, respect for patients and your partner, infection control, stress, and burnout. In EMS we must learn to respect experienced providers; however, if your partner is not following safety procedures, no matter how experienced he or she is, you are obligated to communicate your concerns to achieve change. If your partner is experiencing burnout, he or she needs help.

Chapter 3: Medical, Legal and Ethical Issues

Assessment in Action

1. B. duty to act.

The EMT-B has the responsibility to give medical care in certain situations. This is usually covered by a law, regulation, or sometimes an agency's policy.

2. A. abandonment.

Unilateral transfer of patient care without provisions for continued care constitutes abandonment.

3. B. permission or consent must be obtained.

Before the EMT-B can provide any medical care, the patient must give consent.

4. B. expressed or informed consent.

Alert and oriented patients give the EMT-B expressed or informed consent so the EMT-B can provide any treatment or care.

5. A. implied consent.

If a patient is unconscious or critically ill or injured, the EMT-B can treat and provide care under implied consent.

6. D. protecting the patient from harming himself.

The combative or violent patient must be restrained to protect both the EMT-B and the patient from any harm.

7. C. patient confidentiality.

The EMT-B has a legal and moral responsibility to ensure that all patient information is maintained under strict confidentiality.

8. A. assault and battery.

Providing patient care without first obtaining consent from the patient can constitute assault and battery and the EMT-B could be charged with a crime.

9. The EMT-B must understand what constitutes a legal DNR and the responsibility in honoring the DNR.

10. EMT-Bs are responsible for acting in an ethical manner. This includes their conduct, motive, and character and how they relate to others.

11. It is essential that the EMT-B write a professional PCR to protect the EMT-B from liability, meet the administrative requirements such as insurance billing, and participate in studies of quality assurance and improvement.

12. The EMT-B is required to report special situations such as sexual assault, child abuse, elder abuse, violent crimes, and animal abuse.

Points to Ponder

Often patients refuse to be treated and transported by ambulance. The EMT-B has an ethical responsibility to convince the patient to go for treatment. The EMT-B, however, must understand that patients have the right to refuse treatment. If treatment is provided by an EMT-B without the patient's consent, the EMT-B could be charged with assault and battery. Sometimes the persistence by the EMT-B with encouragement from law enforcement personnel can change the patient's mind.

Chapter 4: The Human Body*Assessment in Action*

1. B. Prone

A person lying on his or her back is supine. A person who is sitting up with knees bent is in Fowler's position. A person in the shock, or Trendelenburg, position is in the supine position with his or her feet higher than the head.

2. C. Abdominal RUQ

Anterior indicates the front side of a person. Right lateral refers to the outer structures and distal to the rib cage is just below the structure.

3. A. Liver

The liver is a large, extremely vascular solid organ that occupies a large portion of the RUQ and extends over to the LUQ. A laceration of the liver will cause severe bleeding. The spleen is located in the LUQ. The pancreas lies medially to the left side. The small intestine is a hollow organ located in all quadrants of the abdomen and is not as likely to cause severe bleeding.

4. D. Groin

The groin region is located on anterior, medial aspect of the pelvis.

5. B. Femoral

The artery that runs through the pelvis and is palpable in the groin is the femoral artery. The brachial is located in the upper extremities, the dorsalis pedis is located in the lower extremities, and the carotid is located in the neck.

6. A. Xiphoid process

The xiphoid process is the bony protrusion that is used as a landmark in CPR. The costal arch is a bridge of cartilage that connects the sixth through tenth ribs. The Angle of Louis lies at the level

where the second rib is attached to the sternum, and the jugular notch lies at the proximal end of the sternum.

7. D. Pulmonary artery and vein

The pulmonary arteries carry oxygen poor blood from right ventricle to lungs and pulmonary veins carry oxygen rich blood from the lungs to the left atrium.

8. B. Skin

Metabolism must take place within a very narrow temperature range, and the major organ for temperature regulation is the skin.

9. When the heart is working normally, the electrical impulse begins in the SA (sinoatrial) node and travels down to the AV (atrioventricular) node through the bundle of His and to the Purkinje fibers to the ventricles. When the cardiac muscle is stimulated to contract, that causes systole. When the cardiac muscle relaxes, it causes diastole. The difference between systole and diastole is called the pulse pressure.

10. The cerebrum is the largest part of the brain and is responsible for a wide range of functions such as personality, sight, taste, and voluntary muscle activity. An injury to this region could affect a person's vision, smell, speech, and muscle functions, such as the ability to smile and open the eyelids. The cerebellum's major function is to coordinate various activities of the body. An injury could cause such conditions as ataxia and dysmetria. The brain stem is responsible for virtually all body functions necessary for life and an injury could cause a change in mental status and respiratory rates.

Points to Ponder

The pediatric airway is smaller and the tongue and epiglottis is larger in comparison with an adult. The pediatric airway occludes greatly with any amount of glottic edema. The cone-shaped larynx reaches its narrowest point at the cricoid ring. The head of a child is larger than an adult's when compared to the body. A good way to align the pediatric airway is to place padding underneath the shoulders to help align the airway. When a child's head is tilted forward the airway can be occluded by the angle and the positioning of the tongue. The pediatric patient depends on the diaphragm for respiration and the chest wall does little of the work. Therefore, the chest rise of a child is not as visually significant as an adult's. Because the normal breathing rate for a 5-year-old child is 18 to 30 times a minute, you should breathe for them at this rate when required. Infants younger than 1 month breathe through their nose.

Chapter 5: Baseline Vital Signs and SAMPLE History

Assessment in Action

1. B. baseline vital signs.

The initial or baseline vital signs are the first set taken and used to compare future vital signs.

2. C. 12 to 20 breaths/min

The normal respiratory rate for an adult patient is 12 to 20 breaths/min. Infant rates are 25 to 50 breaths/min. Child respiratory rates are 15 to 30 breaths/min. Remember that 12 to 20 breaths/min is a normal rate, but you also must take into consideration the patient's depth and rhythm of respiration.

3. D. tachycardia.

Tachypnea and bradypnea represent fast and slow respiratory rates, whereas bradycardia is defined as a heart rate less than 60 beats/min. A heart rate of 100 beats/min or higher is termed tachycardia.

4. C. chief complaint.

The chief complaint is usually the reason why you were called to the scene. Always keep in mind that the complaint that the patient describes at first is not necessarily the reason you were called.

5. B. Difficulty breathing

The tripod position indicates the patient is having difficulty breathing. The patient is trying to make his breathing easier.

6. A. 15

This patient scores a 15 on the GCS, which is a perfect score.

7. A. 8

The patient responds to painful stimuli, which is a score of 2 on eye opening. The patient's words are incomprehensible, which is a score of 2, and the patient withdraws from painful stimuli, which is a score of 4. The patient's total GCS score therefore is an 8.

8. This pulse rate is normal for the situation. A distressed 2-year-old can have a significantly elevated pulse rate. The determining factor is the irregularity of the pulse rate. A child who is tachycardic and distressed will have an irregular rate. A child with a high pulse rate related to a

cardiac condition will have a steady, consistent rate. The brachial artery is the best place to palpate a child's pulse rate. The radial pulse is not easily palpated on a 2-year-old.

9. Noninvasive blood pressure measurements in children are difficult to obtain, are often inaccurate, and can exacerbate the patient's condition. It is acceptable to determine perfusion in children with pulse rate and quality, skin color, and capillary refill.

Points to Ponder

Your patient's chief complaint is chest pain. His paleness and diaphoresis are signs; his nausea and radiating chest pain are symptoms. The pulse taken during baseline vital signs is most concerning, for it is higher than the range of the normal adult. Consideration must be made for the conditions upon your arrival—this patient clearly was exerting himself prior to your arrival. Follow-up vital signs will be important. Your patient was overheated and dehydrated. Coffee acts as a mild diuretic. Placing the patient into a cool area with fluids will improve your patient's condition.

Chapter 6: Lifting and Moving Patients

Assessment in Action

1. D. All of the above

It is always a good idea to use additional manpower and equipment when necessary. Injuries often occur when providers try to do too much themselves.

2. C. A scoop stretcher

The scoop stretcher is easy to apply with minimal patient movement.

3. D. All of the above

Also keeping your body from twisting while lifting and using your legs to lift will help prevent lifting injuries.

4. B. To guide the person walking backwards down the stairs

Using a third person is optimal for the safety of the crew and the patient. That person can act as the eyes of the person who must walk backwards and guide them down.

5. A. Extremity lift

The extremity lift lines the rescuers up with the patient, thus making it easy to navigate narrow spaces.

6. C. There is smoke coming from the airbag.

It is common for a smoke looking powder to be discharged with the airbag. This powder can sometimes irritate a patient, but is otherwise harmless.

7. D. As many as it takes to be done safely

The textbook shows the roles of three providers, but it should be known that using as many providers as it takes to make the extrication safe for the patient and the crew is appropriate.

8. Twisting your body could cause uneven weight distribution. Keeping your hands close to you body keeps the load close to the weightbearing aspect of your body.

9. Everyone wants to start a new job on the right foot, but even the smallest back injury could progress into chronic problems. It is always wise to report all lifting injuries so that it is documented.

Points to Ponder

The patient is in some pain and cannot be lifted with an extremity carry. The patient could have a fractured pelvis and any unnecessary movements could cause further injury. The best method to move this particular patient would be the scoop stretcher. You must stabilize the patient's hip. There are several ways you can achieve this such as a sheet wrap and placing a pillow between the patient's legs and strapping the legs together. There is also a very effective way involving the KED. Place the KED upside down underneath the patient with the straps at the level of the patient's hips. Strap the KED to the patient's hip and secure the legs.