

Chapter 11

1. A 55-year-old man is found unresponsive at a resort. For the automated external defibrillator (AED) to be used, the patient must have:
 - A) brain damage.
 - B) dilated pupils.
 - C) a pulse and no respirations.
 - D) no pulse and no respirations.

2. While transporting a 67-year-old patient in a toboggan with severe substernal chest pain, you notice that the patient has become pulseless. What should you do?
 - A) Defibrillate at once with the AED while continuing in route to the aid room.
 - B) Stop the toboggan, start CPR, allow the AED to analyze the rhythm, and deliver a shock if indicated.
 - C) Start CPR and continue on to the aid room.
 - D) Start CPR, allow the AED to analyze the heart rhythm, and deliver a shock if indicated.

3. ECG/defibrillator pads are placed on the patient's chest with one pad to the:
 - A) left of the upper sternum and the other pad just to the right of the left nipple.
 - B) left of the upper sternum and the other pad just to the right and below the left nipple.
 - C) right of the upper sternum and the other pad just to the right of the right nipple.
 - D) right of the upper sternum and the other pad just to the left and below the left nipple.

4. The AED protocol allows you to deliver three defibrillations, followed by 1 minute of CPR, followed by how many shocks, if necessary?
 - A) 1
 - B) 2
 - C) 3
 - D) 4

5. Your rescue team is performing CPR on a patient in cardiac arrest. You connect the AED. CPR is stopped, and the AED analyzes the rhythm. It indicates that no shock is needed. You check for a pulse, and there is none. What should you do next?
 - A) Stop all resuscitation efforts.
 - B) Start CPR and transport immediately.
 - C) Do CPR for 1 minute, stop CPR, and check for a pulse.
 - D) Immediately allow the AED to reanalyze. If no shock is indicated, transport the patient immediately.

6. Without the use of special defibrillator pads, you may not defibrillate children younger than 8 years unless they weigh at least how many pounds?
- A) 45
 - B) 55
 - C) 65
 - D) 75
7. While the AED is analyzing the patient's heart rhythm, you must ensure that:
- A) the patient is being hyperventilated.
 - B) two-person CPR is being performed.
 - C) no one is touching the patient.
 - D) carotid and radial pulse checks are being performed.
8. Which chamber of the heart has the thickest muscle wall?
- A) right atrium
 - B) right ventricle
 - C) left atrium
 - D) left ventricle
9. The heart muscle receives its primary oxygen supply from the:
- A) coronary arteries.
 - B) pulmonary artery.
 - C) superior vena cava.
 - D) blood passing through the four chambers.
10. Cardiac arrest is best identified by assessing the patient's:
- A) respirations and pulse.
 - B) pupils and respirations.
 - C) pupils and the AED monitor.
 - D) pulse and the AED monitor.
11. The AED has delivered six defibrillations to a cardiac arrest patient you are treating. After delivery of the sixth shock, a carotid pulse was found. What should you do next?
- A) Transport immediately.
 - B) Take a complete set of vital signs.
 - C) Contact medical control for advice on how to proceed with the patient.
 - D) Assess whether the patient is breathing, and provide supplemental oxygen and ventilation if necessary.

12. When the heart muscle is without blood flow for a period of time, the muscle tissue can die. What is this condition called?
- A) cardiac arrest
 - B) myocardial infarction
 - C) cardiovascular accident
 - D) pulseless electrical activity
13. While the AED is analyzing the patient's heart rhythm, you should:
- A) discontinue CPR.
 - B) not stop CPR for any reason.
 - C) slow down the rate of compressions.
 - D) continue CPR except when the shock is being delivered.
14. One of your goals in using an AED to manage a cardiac arrest patient is to:
- A) provide defibrillation to patients in cardiac arrest.
 - B) make it easier for Advanced Life Support (ALS) to respond to the scene.
 - C) allow you to do a complete assessment by evaluating the heart rhythm.
 - D) keep the patient from remaining in cardiac arrest by shocking the patient quickly.
15. AED failures most commonly occur because the:
- A) battery is not properly charged.
 - B) patient is too large for the AED to be of any benefit.
 - C) ECG/defibrillating pads are not adhering to the patient.
 - D) rescuer is not able to recognize ventricular fibrillation on the monitor.
16. You can determine that a patient with cardiac arrest may need defibrillation by which of the following findings?
- A) The patient is breathing and has a carotid pulse.
 - B) The patient is breathing and has no carotid pulse.
 - C) The patient is not breathing and has a carotid pulse.
 - D) The patient is not breathing and has no carotid pulse.
17. Where is the carotid pulse located?
- A) neck
 - B) knee
 - C) groin
 - D) wrist

18. Where is the radial pulse located?
- A) neck
 - B) knee
 - C) groin
 - D) wrist
19. The left atrium of the heart receives blood that is:
- A) oxygenated and coming from the lungs.
 - B) oxygenated and coming from the vena cava.
 - C) low in oxygen and coming from the lungs.
 - D) low in oxygen and coming from the vena cava.
20. The right atrium of the heart receives blood that is:
- A) oxygenated and coming from the lungs.
 - B) oxygenated and coming from the vena cava.
 - C) low in oxygen and coming from the lungs.
 - D) low in oxygen and coming from the vena cava.
21. The left ventricle of the heart pumps blood:
- A) low in oxygen to the lungs.
 - B) low in oxygen to all parts of the body.
 - C) high in oxygen to the lungs.
 - D) high in oxygen to all parts of the body.
22. The right ventricle of the heart pumps blood:
- A) low in oxygen to the lungs.
 - B) low in oxygen to all parts of the body.
 - C) high in oxygen to the lungs.
 - D) high in oxygen to all parts of the body.
23. What are the two large chambers located at the lower end of the heart called?
- A) atria
 - B) auricles
 - C) purkinje
 - D) ventricles

24. You have responded to the base lodge area for a 73-year-old man complaining of chest pain. What should your treatment include?
- A) Place the patient prone on a cot to help him breathe easier.
 - B) Ask whether someone has some nitroglycerin that you could give to the patient.
 - C) Get the patient's insurance number.
 - D) Administer oxygen to the patient while conducting an assessment.
25. What large vein carries blood from the lower parts of the body to the heart?
- A) brachial
 - B) femoral
 - C) inferior vena cava
 - D) superior vena cava
26. A 40-year-old man is in cardiac arrest. Other rescuers are performing CPR. You are attaching the AED when the patient's wife tells you that the patient has an automatic implantable cardiac defibrillator (AICD). The AED advises that a shock is indicated. What should you do?
- A) Do not shock because the shock could damage the AICD.
 - B) Do not shock because you know the shock will not be successful.
 - C) Proceed as with any other cardiac arrest patient in which the AED advises a shock.
 - D) Deliver a shock, but reduce the energy setting to 50 joules so as not to damage the AICD.
27. A 57-year-old woman is complaining of chest pain. She tells you that her pain is becoming worse. What is the most likely cause of her chest pain?
- A) Too much oxygen is causing a muscle spasm.
 - B) The heart is not receiving enough oxygen.
 - C) The lungs are not receiving enough oxygen.
 - D) The diaphragm is putting pressure on the heart.
28. What is the difference between pain from angina and pain from myocardial infarction?
- A) There is no difference.
 - B) The pain with a myocardial infarction will most likely decrease if the patient is allowed to rest.
 - C) The pain with an angina attack will most likely increase if the patient is allowed to rest.
 - D) The pain with an angina attack will most likely decrease if the patient is allowed to rest.

29. You may note a common occurrence while treating some patients for possible acute myocardial infarction. These patients may:
- A) have an overwhelming feeling of impending doom.
 - B) have hot, dry skin.
 - C) eat extra sugar to prevent a possible diabetic reaction.
 - D) complain of sharp or sticking pain.
30. A 50-year-old man is telling you during your assessment that his chest pain feels as if it is radiating into his neck. You would NOT expect someone with chest pain to also complain of pain in which of the following locations?
- A) left arm
 - B) left shoulder
 - C) left lower leg
 - D) right shoulder
31. You are treating a patient who you suspect is having a myocardial infarction, yet the patient is demonstrating the signs of shock. What is this type of shock called?
- A) septic
 - B) cardiogenic
 - C) ventricular
 - D) hypovolemic
32. The narrowing of the vessels of the heart due to a buildup of fatty deposits is called:
- A) angioplasty.
 - B) atherosclerosis.
 - C) cardiogenic carcinoma.
 - D) ventricular septal disease.
33. The right ventricle collects blood from the:
- A) aorta and moves the blood to the body.
 - B) vena cava and moves the blood to the lungs.
 - C) left atrium and moves the blood to the body.
 - D) right atrium and moves the blood to the lungs.
34. The left ventricle collects blood from the:
- A) aorta and moves the blood to the body.
 - B) vena cava and moves the blood to the lungs.
 - C) left atrium and moves the blood to the body.
 - D) right atrium and moves the blood to the lungs.

35. What large vein carries blood from the upper part of the body to the heart?
- A) brachial
 - B) femoral
 - C) inferior vena cava
 - D) superior vena cava
36. Which of the following is NOT commonly reported for a patient experiencing a myocardial infarction?
- A) double vision
 - B) sudden onset of pain
 - C) cold, clammy, pale skin
 - D) respiratory distress
37. What is the most serious complication of a myocardial infarction?
- A) dyspnea
 - B) sudden death
 - C) left-sided paralysis
 - D) altered level of consciousness
38. You are treating a patient who you suspect is having heart ischemia. What is the best position for this patient?
- A) prone
 - B) supine or semirecumbent
 - C) sitting and well supported
 - D) supine with the legs elevated
39. An obese 40-year-old man began having chest pains while snowshoeing. As you assess the patient, you find him convinced that he is going to die. You should suspect:
- A) a syncopal episode.
 - B) acute myocardial infarction.
 - C) congestive heart failure.
 - D) a spontaneous pneumothorax.
40. A patient in cardiac arrest undergoes automated external defibrillation (AED). After the first shock is delivered, you should:
- A) assess for a pulse.
 - B) give two artificial ventilations.
 - C) reanalyze the rhythm.
 - D) start CPR.

41. Which of the following findings is associated with acute myocardial infarction?
- A) tracheal deviation
 - B) hot, flushed skin
 - C) calm, collected mental state
 - D) pain in the lower jaw
42. A woman who is short of breath tells you she has a history of congestive heart failure. You would expect to find:
- A) distended neck veins.
 - B) bradycardia.
 - C) inspiratory stridor.
 - D) jaundiced skin.
43. Why should oxygen be given to a patient with chest pain?
- A) It is cheap and very easy to give.
 - B) Chest pain is an indication for the use of oxygen.
 - C) The oxygen delivery system makes the patient feel better.
 - D) The oxygen prevents cardiac arrest from occurring.
44. Blood is supplied to the right ventricle and inferior wall of the left ventricle by the:
- A) right coronary artery.
 - B) left coronary artery.
 - C) pulmonary artery.
 - D) aorta.
45. Blood is supplied to the left ventricle by the:
- A) right coronary artery.
 - B) left coronary artery.
 - C) pulmonary artery.
 - D) aorta.
46. The electrical impulse generated by the heart originates in the:
- A) coronary sinus.
 - B) SA node.
 - C) AV node.
 - D) left ventricle.

47. At the level of the navel, the descending aorta divides into the two:
- A) peroneal arteries.
 - B) tibial arteries.
 - C) iliac arteries.
 - D) femoral arteries.
48. The blood component most responsible for clotting is:
- A) platelets.
 - B) white blood cells.
 - C) red blood cells.
 - D) plasma.
49. The posterior tibial pulse can be easily felt:
- A) on the top of the foot.
 - B) behind the lateral malleolus.
 - C) behind the medial malleolus.
 - D) at the base of the thumb.
50. Blood clots in the coronary arteries are thought to commonly form from:
- A) fragments of atherosclerotic plaques breaking off.
 - B) higher amounts of cholesterol activating clotting mechanisms.
 - C) cracks in the plaque exposing the atherosclerotic wall.
 - D) increased calcium attracting platelets to form clumps.
51. Which of the following is NOT considered a risk factor for heart disease?
- A) hypertension
 - B) high cholesterol levels
 - C) diabetes
 - D) cerebrovascular accidents
52. Which of the following arrhythmias is NOT likely to result in death?
- A) ventricular fibrillation
 - B) bradycardia
 - C) ventricular tachycardia
 - D) asystole

53. You would suspect a pacemaker malfunction most when the pulse is:
- A) more than 100 beats/min.
 - B) less than 60 beats/min.
 - C) weak and irregular.
 - D) absent.
54. All AEDs manufactured in the United States today are:
- A) fully automatic.
 - B) semiautomatic.
 - C) partially automatic.
 - D) manual.
55. New AEDs currently being studied that use less energy and are more efficient provide a:
- A) monophasic shock.
 - B) demand shock.
 - C) synchronized shock.
 - D) biphasic shock.
56. Which of the following is considered an advantage of AED use?
- A) Remote pads apply less pressure than paddles.
 - B) Rescuers are expected to interpret which rhythms to shock.
 - C) Shocks can be delivered within 1 minute of confirming no pulse.
 - D) Shocks can be delivered to all arrhythmias.
57. On the basis of the American Heart Association's Chain of Survival, patients in cardiac arrest have the best chance of survival when:
- A) defibrillation occurs within 2 minutes of confirming no pulse.
 - B) CPR is done for 5 minutes prior to defibrillation.
 - C) ALS medications are administered before CPR is begun.
 - D) patients are younger than 50 years.
58. The main legal risk to the use of an AED is:
- A) not providing a shock when needed.
 - B) providing an accidental shock when it is not needed.
 - C) providing a shock prior to providing CPR.
 - D) using an AED to monitor a patient's rhythm.

Answer Key

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

- 45. B
- 46. B
- 47. C
- 48. A
- 49. C
- 50. C
- 51. D
- 52. B
- 53. B
- 54. B
- 55. D
- 56. C
- 57. A
- 58. A