

## Chapter # 16: Cardiovascular Emergencies

1. Deoxygenated blood from the body returns to the:
  - A) right atrium.
  - B) right ventricle.
  - C) left atrium.
  - D) left ventricle.
  
2. Angina pectoris occurs when:
  - A) a coronary artery is totally occluded by plaque.
  - B) myocardial oxygen demand exceeds supply.
  - C) one or more coronary arteries suddenly spasm.
  - D) myocardial oxygen supply exceeds the demand.
  
3. The electrical impulse generated by the heart originates in the:
  - A) bundle of His.
  - B) coronary sinus.
  - C) sinoatrial node.
  - D) atrioventricular node.
  
4. A patient with atherosclerotic heart disease experiences chest pain during exertion because:
  - A) the coronary arteries suddenly spasm and cause a marked reduction in myocardial blood flow.
  - B) the lumen of the coronary artery is narrowed and cannot accommodate increased blood flow.
  - C) tissues of the myocardium undergo necrosis secondary to a prolonged absence of oxygen.
  - D) the ragged edge of a tear in the coronary artery lumen causes local blood clotting and arterial narrowing.
  
5. Risk factors for AMI that cannot be controlled include:
  - A) excess stress.
  - B) hyperglycemia.
  - C) family history.
  - D) lack of exercise.

6. Signs and symptoms of a hypertensive emergency would MOST likely be delayed in patients who:
- A) have chronic hypertension.
  - B) regularly take illegal drugs.
  - C) have had a stroke in the past.
  - D) are older than 40 years of age.
7. A 49-year-old male presents with an acute onset of crushing chest pain and diaphoresis. You should:
- A) administer up to 324 mg of baby aspirin.
  - B) administer up to three doses of nitroglycerin.
  - C) obtain vital signs and a SAMPLE history.
  - D) assess the adequacy of his respirations.
8. Which of the following is NOT a common sign or symptom associated with malfunction of an implanted cardiac pacemaker?
- A) A rapid heart rate
  - B) Syncope or dizziness
  - C) Heart rate less than 60 beats/min
  - D) Generalized weakness
9. A patient in cardiac arrest is wearing an external defibrillator vest, which is interfering with effective chest compressions. The EMT should:
- A) leave the battery attached to the monitor and remove the vest.
  - B) remove the battery from the monitor and leave the vest in place.
  - C) perform ventilations only and allow the vest device to defibrillate.
  - D) remove the battery from the monitor and then remove the vest.
10. A dissecting aortic aneurysm occurs when:
- A) all layers of the aorta suddenly contract.
  - B) a weakened area develops in the aortic wall.
  - C) the inner layers of the aorta become separated.
  - D) the aorta ruptures, resulting in profound bleeding.
11. A 66-year-old female with a history of hypertension and diabetes presents with substernal chest pressure of 2 hours' duration. Her blood pressure is 140/90 mm Hg, her pulse is 100 beats/min and irregular, her respirations are 22 breaths/min, and her oxygen saturation is 92%. The patient does not have prescribed nitroglycerin, but her husband does. You should:
- A) administer oxygen, give her 324 mg of aspirin, and assess her further.
  - B) obtain a SAMPLE history and contact medical control for advice.
  - C) give her high-flow oxygen, attach the AED, and transport at once.
  - D) give her one nitroglycerin and reassess her systolic blood pressure.

12. Nitroglycerin is contraindicated in patients:
- A) who have taken up to two doses.
  - B) who have experienced a head injury.
  - C) with a history of an ischemic stroke.
  - D) with a systolic blood pressure less than 120 mm Hg.
13. When preparing to obtain a 12-lead ECG, the “LL” and “RL” electrodes should be placed:
- A) on the lower abdomen.
  - B) anywhere on the arms.
  - C) on the thighs or ankles.
  - D) on either side of the chest.
14. A patient tells you that he has a left ventricular assist device (LVAD). Which of the following conditions should you suspect that he has experienced?
- A) Thoracic aortic aneurysm
  - B) Acute myocardial infarction
  - C) Uncontrolled hypertension
  - D) Obstructive lung disease
15. The EMT should use an AED on a child between 1 month and 8 years of age if:
- A) he or she is not breathing and has a weakly palpable pulse.
  - B) his or her condition is rapidly progressing to cardiac arrest.
  - C) pediatric pads and an energy-reducing device are available.
  - D) special pads are used and the child has profound tachycardia.
16. Most AEDs are set up to adjust the voltage based on the impedance, which is the:
- A) resistance of the body to the flow of electricity.
  - B) direction that the electrical flow takes in the body.
  - C) actual amount of energy that the AED will deliver.
  - D) distance between the two AED pads on the chest.
17. After the AED has delivered a shock, the EMT should:
- A) assess for a carotid pulse.
  - B) immediately resume CPR.
  - C) re-analyze the cardiac rhythm.
  - D) transport the patient at once.

18. You and your partner arrive at the scene of a middle-aged man who collapsed about 5 minutes ago. He is unresponsive, apneic, and pulseless. Bystanders are present, but have not provided any care. You should:
- A) begin high-quality CPR and apply the AED as soon as possible.
  - B) have your partner perform CPR while you question the bystanders.
  - C) perform two-rescuer CPR for 5 minutes and request ALS backup.
  - D) immediately apply the AED pads and analyze his cardiac rhythm.
19. Prior to attaching the AED to a cardiac arrest patient, the EMT should:
- A) contact medical control.
  - B) dry the chest if it is wet.
  - C) perform CPR for 30 seconds.
  - D) assess for a pulse for 20 seconds.
20. Which of the following signs is commonly observed in patients with right-sided heart failure?
- A) Labored breathing
  - B) Dependent edema
  - C) Pulmonary edema
  - D) Flat jugular veins