



NAEMT

Advanced Medical Life Support Precourse Written Examination

Advanced Level (ALS)

Record answers on written exam answer sheet



ADVANCED MEDICAL LIFE SUPPORT PRETEST- Advanced Level

Revised 1/05

Select the best answer for each of the following questions.

1. Which of the following items would help differentiate the patient in diabetic ketoacidosis (DKA) from hyperosmolar hyperglycemic nonketotic coma (HHNC)?
 - A. HHNC presents with dehydration while DKA does not
 - B. HHNC presents with a fruity ketone odor while DKA does not
 - C. DKA presents with Kussmaul's respirations while HHNC does not
 - D. Insulin-dependent diabetic patients generally develop HHNC as opposed to DKA

2. You are assessing a 74 -year-old female patient in respiratory distress. Your initial assessment indicates a patent airway, labored respirations, and strong radial pulses. The skin is warm to hot and slightly diaphoretic with a capillary refill of less than 2 seconds. The vital signs are: pulse rate of 108 beats per minute, blood pressure of 110/62 mmHg, and respirations of 32 per minute. Auscultation of the lungs reveals rales and rhonchi in the left lower lobe. Which of the following is the most likely cause of respiratory distress?
 - A. Pneumonia
 - B. Pneumothorax
 - C. Cardiogenic Shock
 - D. Right Ventricular Failure

3. For the patient in the above questions, which of the following treatment regimes would be most appropriate?
 1. ECG monitoring
 2. 1:1000 epinephrine
 3. High-flow oxygen via mask
 4. Nitroglycerine and morphine
 5. Intravenous access with normal saline solution
 - A. 1, 2
 - B. 1, 3, 5
 - C. 1, 2, 3
 - D. 1, 2, 4, 5

4. A 22-year-old female presents with a headache that has been present for the past 1-2 days. On assessing the patient, you note fever, diaphoresis, and nausea accompanied by neck stiffness. You suspect:
 - A. Evolving stroke
 - B. Meningitis or encephalitis
 - C. Subdural hematoma from previous fall
 - D. Tension headache from muscular tightness in the neck

5. Of the following statements, which is true concerning the treatment of chest pain?
 - A. All chest pain is treatable with nitroglycerine
 - B. All chest pain should be treated as a serious condition until proven otherwise
 - C. The paramedic must identify the specific cause prior to beginning any treatment
 - D. With a normal ECG, an acute MI is ruled out, and the chest pain is treated with oxygen only

6. You are called to an apartment for chest pain. On arrival, the 52 year-old male states that he is now pain free. Which of the following statements may be most consistent with the presence of angina pectoris versus an AMI?
 - A. The pain is described as sharp and stabbing
 - B. The pain has lasted between 30 and 45 minutes
 - C. The pain is described as a tearing sensation that radiates to the back
 - D. The pain was promptly alleviated by rest and the administration of nitroglycerine

7. A 56-year-old male complains of abdominal pain and diarrhea for 7 days, but refuses transport to a local hospital. Based on the patient's history, your best advice to the patient would be:
 - A. Decline treatment, as diarrhea is virtually harmless
 - B. Decline treatment, as the diarrhea will stop once a full meal is ingested
 - C. Accept medical treatment, as diarrhea can alter electrolyte concentrations
 - D. Accept medical treatment, as diarrhea is a natural response to excessive body fluids

8. A male patient complains of steady dull pain in the right upper quadrant and similar pain in the right shoulder. The patient denies any recent trauma. You should suspect which of the following?
 - A. The shoulder pain is referred from the liver
 - B. The shoulder pain is referred from the spleen
 - C. The shoulder pain is referred from the pancreas
 - D. The patient must have slept on his right shoulder

9. Which of the following statements is true regarding rapid sequence intubation (RSI)?
 - A. It cannot be done if the patient has eaten within the last four hours
 - B. It is routinely used in patients considered to have very difficult anatomy for intubation
 - C. It often takes longer to accomplish than an intubation performed using standard procedure
 - D. It is performed only when the patient cannot be ventilated effectively with a bag valve mask

10. You arrive on the scene for a 21-year-old seizure patient and find the patient lying on a bed. The patient responds to painful stimuli with a moan and exhibits sonorous respirations. Family members inform you that aside from a seizure history, the patient does not have any additional medical problems. In relation to the patient's current status, the patient would best be described as:
- A. Sleeping
 - B. Postictal
 - C. Hypoglycemic
 - D. Status epilepticus
11. The most appropriate treatment for the above patient would include:
- 1. Recovery position
 - 2. Blood glucose evaluation
 - 3. Placement of an oropharyngeal airway
 - 4. Intravenous access with Valium administration
 - 5. High-flow oxygen at 15 lpm via non-rebreather mask
- A. 4, 5
 - B. 1, 4, 5
 - C. 1, 2, 5
 - D. 1 only
12. You are presented with a patient complaining of bilateral upper quadrant abdominal pain. Further assessment reveals a distended abdomen, global bruising, and jaundice to the sclera. You would suspect which of the following?
- A. Liver failure
 - B. Splenic rupture
 - C. Hypoactive pancreas
 - D. Large bowel obstruction
13. A 63-year-old male with a significant cardiovascular history presents with lethargy and confusion. The patient states the presence of chest pain and exhibits diaphoresis. His vital signs are: pulse rate of 40 beats per minute, blood pressure of 84/palpation, labored respirations of 28 per minute. The patient's skin is cool with a capillary refill estimated at 3 seconds. Auscultation of the lungs reveals coarse rales in the lower lobes. Which of the following conditions is most likely responsible for the altered mental status?
- A. Pneumonia
 - B. Hypovolemia
 - C. Cardiac dysrhythmia
 - D. Pulmonary Hypertension
14. A 62-year-old male with a history of emphysema states an acute onset of respiratory distress accompanied by pleuritic chest pain. He appears moderately dyspneic, with a breathing rate of 26 breaths per minute. His skin is warm and non-diaphoretic. On auscultation, you note that breath sounds are diminished on the right side. Your strongest suspicion is:
- A. Asthma
 - B. Pneumonia
 - C. Pneumothorax
 - D. Chronic bronchitis

15. An elderly female is on aspirin daily for coronary artery disease. She states the presence of a gradually worsening headache over the past two weeks. Additionally, she states intermittent problems in walking and speaking, both new to her. When asked about trauma, she states a fall in church 3 weeks ago and she hit her head and shoulder. At that time she went to the hospital and was cleared of any injury. Her skin is warm and dry. She exhibits no immediate life threats. You suspect which of the following?
- A. Acute CVA
 - B. Epidural hematoma
 - C. Subdural hematoma
 - D. Cerebral Concussion
16. The most appropriate treatment for the patient with a suspected simple pneumothorax would include:
- A. Oxygen and cardiac monitor
 - B. Oxygen, cardiac monitor, and intravenous access
 - C. Oxygen, intravenous access, and mid-clavicular thoracocentesis
 - D. Oxygen, intravenous access, and mid-axillary thoracocentesis at the fourth intercostal space
17. You have an unresponsive, apneic patient in anaphylactic shock. Of the following responses, which is most correct:
- A. Laryngeal edema is not a concern in this case
 - B. You should be prepared to perform alternative airway maneuvers
 - C. The use of an oropharyngeal or nasopharyngeal airway should be avoided
 - D. You should immediately place a surgical airway instead of taking time on an oral intubation attempt
18. Which of the following describes the overriding goal in the formation of a differential diagnosis for abdominal pain?
- A. Identify the specific organ(s) affected
 - B. Differentiate acute life threats from non-life threats
 - C. Differentiate the specific etiology of the abdominal pain
 - D. Differentiate hemorrhage from inflammation from obstruction
19. You suspect that a weak, confused patient is suffering from undiagnosed diabetes mellitus. As such, which of the following signs or symptoms would best serve to confirm your suspicion?
- A. Poor skin turgor with tenting
 - B. Recent decrease in appetite
 - C. Increased thirst and urination
 - D. Unexplained bruising of the abdomen

20. You are treating a moderate gastrointestinal hemorrhage of the large intestine with oxygen and IV fluid resuscitation. The patient presents with the following vital signs: pulse rate of 104 beats per minute, blood pressure of 106/62 mmHg, and respirations of 20 per minute. Which of the following selections would *best* indicate that your management of the patient is effective?
- A. Increased respirations to 24 per minute
 - B. Decrease in blood pressure to 86/40 mmHg
 - C. Decrease in pulse rate to 76 beats per minute
 - D. Increase in pulse rate to 120 beats per minute
21. You administer 3 mg of morphine to an anxious patient with a suspected myocardial infarction. Within 3 minutes, the patient appears more relaxed and states a significant decrease in the presence of the chest pain. You know that morphine is useful in the treatment of an AMI because of:
- A. Decreasing the respiratory rate and depth
 - B. Decreasing the contractility of the left ventricle
 - C. Increasing arterial and coronary perfusion pressure
 - D. Decreasing the preload to the heart, thereby decreasing the oxygen demand of the heart
22. The proper treatment for the hypoxic patient with chronic bronchitis includes which of the following?
- 1. ECG monitoring
 - 2. High-flow oxygen
 - 3. Epinephrine (1:1000 SQ)
 - 4. Diphenhydramine (Benadryl)
 - 5. Peripheral intravascular access
- A. 1, 2, 5
 - B. 2, 3, 4, 5
 - C. 1, 3, 4, 5
 - D. 1, 2, 3, 4, 5
23. You are managing a patient in shock. You are concerned they are entering the decompensated stage of shock. Which of the following signs would help to confirm this suspicion?
- A. Unresponsiveness and bradycardia
 - B. Bradycardia and increased respiratory rate
 - C. Bradycardia and decreased blood pressure
 - D. Increased respiratory rate and falling blood pressure

24. Of the following items, which represent indications of physiologic instability that would be identified during the initial assessment?
1. Cool, diaphoretic skin
 2. Weak peripheral pulses
 3. Foreign body airway obstruction
 4. Blood pressure of 210/134 mmHg
 5. Respiratory rate of 20 and shallow
- A. 1, 2, 3, 5
B. 1, 2, 4, 5
C. 2, 3, 4, 5
D. 1, 2, 3, 4
25. When palpating the abdomen, a patient with abdominal pain states positive tenderness as you press on the left lower quadrant. As such, which of the following conditions may be responsible for the abdominal pain and tenderness?
- A. Gastritis
B. Hepatitis
C. Pancreatitis
D. Diverticulitis
26. You have appropriately placed an endotracheal tube in an unresponsive patient. In ventilating the patient, you realize that which of the following are true?
1. A patent airway has been achieved
 2. Risk of aspiration may be decreased
 3. Prolonged ventilation may reverse dehydration
 4. The patient stands an increased opportunity for infection
 5. There is no need for an IV as the endotracheal tube can deliver all medications
- A. 2, 4
B. 1, 3, 5
C. 1, 2, 4
D. 1, 2, 3, 4, 5
27. A 62-year-old male with chest pain states the acute onset of a tearing pain that radiates between the shoulder blades and into the left arm. The patient denies any shortness of breath, however is very anxious and pale. Additionally, the patient admits he takes medication for hypertension. You would immediately suspect which of the following conditions?
- A. Pneumonia or pericarditis
B. Aortic dissection or pneumonia
C. Tension pneumothorax or pneumonia
D. Aortic dissection or acute myocardial infarction

28. A patient with abdominal pain vomits a substance that looks like coffee grounds. Of the following conditions, which one is most likely to be the cause?
- A. Acute esophageal varices
 - B. Slow bleed in the stomach
 - C. Arterial bleed in the stomach
 - D. Slow hemorrhage in the descending colon
29. You are responding to a call where the patient has suffered a sudden onset of dyspnea. Based on the acute onset, which of the following items may be responsible for the patient's shortness of breath?
- 1. Asthma
 - 2. Pneumonia
 - 3. Pneumothorax
 - 4. Chronic Bronchitis
 - 5. Pulmonary Embolism
- A. 1, 2
 - B. 3, 4
 - C. 1, 2, 5
 - D. 1, 3, 5
30. A 62-year-old female stated she has had persistent fainting spells occurring frequently and without warning. She also states "*these fainting spells occur when I am sitting or lying down*". You should be suspicious of which type of syncope?
- A. Cardiac
 - B. Vasovagal
 - C. Orthostatic
 - D. Vasodepressor
31. A patient with insulin-dependent diabetes mellitus has suffered a rapid deterioration in his level of consciousness. Your strongest suspicion would be:
- A. Hypoglycemia
 - B. Diabetic ketoacidosis
 - C. Hyperosmolar hyperglycemic nonketotic coma
 - D. Diabetic ketoacidosis or hyperosmolar hyperglycemic nonketotic coma
32. You believe that a patient has suffered a stroke. The patient states he had several days over which slight left-sided weakness has now progressed to full-sided hemiplegia. Based on this information, you should suspect which of the following?
- A. Embolic stroke to the right side of the brain
 - B. Thrombotic stroke to the right side of the brain
 - C. Hemorrhagic stroke to the left side of the brain
 - D. Intracranial hemorrhage to the left side of the brain

33. Considering all the following signs are present, which sign would lead you to suspect the presence of cardiogenic shock?
- A. Rales
 - B. Tachycardia
 - C. Unresponsiveness
 - D. Delayed capillary refill time
34. Of the following statements, which is true concerning seizure activity?
- A. All seizures produce a state of unresponsiveness
 - B. Seizures affect only the Reticular Activating System (RAS)
 - C. Not every patient experiencing a seizure will lose consciousness
 - D. Seizures are defined as violent, uncontrolled jerking of the major muscle groups
35. You have attempted the intubation of a male patient in cardiac arrest. Unfortunately, the patient continues to vomit in copious volumes, thus making visualization of the pharynx impossible with the laryngoscope. Of the following methods, which would provide the most rapid form of airway control in light of the present situation?
- A. Digital intubation
 - B. Nasotracheal intubation
 - C. Rapid sequence intubation techniques
 - D. Bag-valve mask with a nasopharyngeal airway in place
36. You are evaluating a very confused 36-year-old male who has been participating in a marathon event on a hot humid day. His skin is hot with a pulse rate of 126, respirations at 40 and blood pressure of 110/70. You should suspect that the patient is suffering from:
- A. Heat stroke
 - B. Heat cramps
 - C. Heat exhaustion
 - D. Simple dehydration
37. You are assessing a 59-year-old male who is vomiting bright red blood in moderate quantities. The patient denies shortness of breath and has a distended abdomen. Which of the following would explain the patient's current condition?
- A. Emphysema causing a hemothorax
 - B. Pulmonary embolism causing rupture of pulmonary artery
 - C. An acute myocardial infarction causing pericardial tamponade
 - D. Increased portal pressure causing leaking esophageal varices
38. In relation to the above question, select the answer which would best explain the underlying pathophysiology as to the vomiting of blood?
- A. A reduction in cardiac output
 - B. Hepatic cirrhosis creating portal hypertension
 - C. A severe increase in pulmonary artery pressure
 - D. Ruptured alveoli causing blood collection in the pleural space

39. You find a stuporous 72-year-old female in obvious respiratory distress. The initial assessment reveals a patent airway, labored respirations, and weak pulses. The skin is cool and diaphoretic. The capillary refill time is significantly delayed. Vital signs are: pulse of 136, blood pressure of 60/palpation, and respirations are 32 with bilateral crackles. This patient is suffering from which type of shock?
- A. Septic
 - B. Distributive
 - C. Cardiogenic
 - D. Hypovolemic
40. An unresponsive patient has intentionally overdosed on a narcotic drug. The patient presents with shallow respirations at a rate of 6 per minute. What is the possible complication?
- A. Metabolic alkalosis
 - B. Metabolic neutrality
 - C. Respiratory acidosis
 - D. Respiratory alkalosis
41. After the initial assessment, what assessment component should follow for the unresponsive medical patient?
- A. Baseline vital signs
 - B. Rapid medical assessment
 - C. Focused medical assessment
 - D. Re-perform the initial assessment
42. A female patient is in anaphylactic shock. The patient has audible upper airway noises, wheezing, cyanosis and a decreasing level of consciousness. The most appropriate immediate course of action is:
- A. Check for a pulse
 - B. Calculate a respiratory rate
 - C. Ready your intubation equipment
 - D. Establish an IV for the administration of medication
43. You are responding to a call for nausea and vomiting. Which of the following statements is true?
- A. The patient will also have flu-like symptoms
 - B. Vomiting is an indication of an underlying abnormality
 - C. Vomiting represents an illness for which EMS can do little
 - D. All vomiting is best handled with the administration of prochlorperazine

44. Stroke may present with which of the following:
1. Aphasia
 2. Dysarthria
 3. Numbness
 4. Hemiparesis
 5. Change in mental status
- A. 1, 3, 4
 - B. 3, 4, 5
 - C. 2, 3, 4, 5
 - D. 1, 2, 3, 4, 5
45. A patient with a severe intracranial infection presents with lethargy, confusion, and combativeness. Your assessment reveals a patent airway with labored respirations of 24 per minute. The patient exhibits strong, bounding pulses at a rate of 134 beats per minute. The skin is hot and flushed. Inspection of the oral mucosa indicates profound dehydration, and the blood pressure is 100/64 mmHg. The best treatment for this patient would include:
1. IV fluid bolus
 2. 25 mg Benadryl IV push
 3. Blood glucose evaluation
 4. Transport in the supine position
 5. IV of 0.9% normal saline solution
- A. 2, 5
 - B. 1, 3, 5
 - C. 1, 3, 4, 5,
 - D. 1, 2, 3, 4, 5
46. While administering ventilations with a bag-valve mask to a patient breathing at 6 times per minute, which of the following would best help to minimize gastric distension?
- A. Administer cricoid pressure
 - B. Assist the patient's ventilations only
 - C. Place an oropharyngeal airway into the patient's oral cavity
 - D. Avoid delivering ventilations at a rate greater than 10 per minute
47. You are called to assess an alert and oriented 63-year-old female with a complaint of weakness. The skin is cool and non-diaphoretic with a delayed capillary refill. The mucous membranes are dry. Vital signs are: pulse of 124, blood pressure of 108/92 mmHg, and respirations of 20. Which of the following identifies the appropriate stage of shock for this patient.
- A. Irreversible
 - B. Progressive
 - C. Compensated
 - D. Patient is not in shock at this time

48. An 82-year-old male presents with hematemesis and bloody stool. His vital signs are: pulse rate of 132 beats per minute, blood pressure of 68/palpation, and a respiratory rate of 28. Which of the following best describes the most appropriate treatment of this patient?

1. Cardiac monitor
2. IV D5W at TKO
3. Oxygen Administration
4. Dopamine for hypotension
5. 2 large-bore IVs for rapid fluid infusion

- A. 1, 3, 5
- B. 1, 2, 3
- C. 1, 3, 4
- D. 1, 4, 5

49. Choose the correct statement regarding headache:

- A. Headaches are not caused by muscles
- B. Brain has sensory pain fibers and can sense pain
- C. Tension headaches are considered vascular in nature as they are caused by vessel dilation in the brain
- D. Cluster headaches exhibit severe pain to one side of face or head and may have excessive tears on the same side as the pain

50. Which of the following medications should be considered for the treatment of the asthmatic patient?

1. Diuretics
2. Albuterol
3. Morphine
4. Epinephrine
5. Nitroglycerine

- A. 2, 4
- B. 2, 3, 4
- C. 2, 3, 4, 5
- D. 1, 2, 3, 4