



# **NAEMT**

## **Advanced Medical Life Support Precourse Written Examination**

### **Basic Level (BLS)**

**Record answers on written exam answer sheet**

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## ADVANCED MEDICAL LIFE SUPPORT PRETEST - Basic Level

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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. The patient is confused. 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 time of less than 2 seconds. Her vital signs are: pulse of 108, blood pressure of 110/62 mmHg, and respirations of 32. Auscultation of the lungs reveals rales and rhonchi in the left lower lobe. Which of the following is the underlying cause of respiratory distress?
  - A. Pneumonia
  - B. Pneumothorax
  - C. Cardiogenic Shock
  - D. Right Ventricular Failure
  
3. For the patient in the above question, which of the following treatment regimes would be most appropriate?
  1. Monitor vital signs
  2. Transport in trendelenburg position
  3. High-flow oxygen via mask
  4. Assist patient with their nitroglycerin
  5. Transport in a position of comfort
  - 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 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 nitroglycerin
  - B. All chest pain should be treated as a serious condition until proven otherwise
  - C. The healthcare provider must identify the specific cause prior to beginning any treatment
  - D. Pleuritic pain excludes a cardiac etiology
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 would lead you to suspect 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 was promptly alleviated by rest and nitroglycerin
  - D. The pain is described as a tearing sensation that radiates to the back
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 balances
  - 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 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 insertion of a dual-lumen airway device?

- A. The device is safe to use in all ages of patients
- B. They are tolerated well in the conscious patient
- C. An end-tidal CO<sub>2</sub> detector is not helpful in determining tube placement
- D. The device may be inserted into the esophagus or trachea

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. Determining blood glucose
- 3. Placement of an oropharyngeal airway
- 4. Administration of oral glucose
- 5. High-flow oxygen at 15 Lpm via non-rebreather mask

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

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 of 40, blood pressure of 84/palpation, labored respirations of 28. 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 dysfunction
  - 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 in 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. 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 would begin to suspect which of the following?
- A. Acute CVA
  - B. Cerebral concussion
  - C. Subdural hematoma
  - D. Epidural hematoma
16. Which of the following is the most clinically significant difference between a simple pneumothorax and a tension pneumothorax?
- A. Respiratory distress
  - B. Hypotension
  - C. Pleuritic chest pain
  - D. Diminished breath sounds on one side

17. An unresponsive, apneic patient in anaphylactic shock requires immediate airway management. In this case, which of the following is the most correct?
- A. Assist ventilations with a bag-valve-mask
  - B. Laryngeal edema is not a concern in this case
  - C. The use of an oropharyngeal or nasopharyngeal airway should be avoided
  - D. Initial airway management should be placement of a dual lumen airway device
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 the specific etiology of the abdominal pain
  - C. Differentiate acute life threats from non-life threats
  - D. Differentiate hemorrhage from inflammation from obstruction
19. You suspect that a weak, confused patient is suffering from undiagnosed diabetes mellitus. 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 assisting your ALS partner with a patient presenting with a moderate gastrointestinal hemorrhage of the large intestine with oxygen and IV fluids. The patient presents with the following vital signs: pulse of 104, blood pressure of 106/62 mmHg, and respirations of 20. Which of the following 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 are transporting a 24 year old female who is complaining of sharp, pleuritic chest pain that had a sudden onset. She has rapid respirations and is tachycardic. She has a history of an emergency appendectomy 3 days ago. Which of the following would you most suspect?
- A. Myocardial Infarction
  - B. Angina Pectoris
  - C. Esophageal Disruption
  - D. Pulmonary Embolism

22. As you conduct an initial assessment, you notice that the patient is presenting with shallow respirations of 6 per minute. To treat this patient, you should immediately do which of the following?
- A. Investigate the reason for the shallow respirations
  - B. Check for carotid and radial pulses
  - C. Identify the specific cause of the respiratory distress
  - D. Administer positive pressure ventilation with a BVM
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 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. Shallow respirations
  - 2. Cool, diaphoretic skin
  - 3. Weak peripheral pulses
  - 4. Foreign body airway obstruction
  - 5. Blood pressure of 210/134 mmHg
- 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 when you press on the left lower quadrant. Which of the following conditions may be responsible for the abdominal pain and tenderness?
- A. Gastritis
  - B. Hepatitis
  - C. Pancreatitis
  - D. Diverticulitis
26. Which of the following is not a likely cause of seizures?
- A. COPD
  - B. Hypoglycemia
  - C. Traumatic injury to the head
  - D. Alcoholism

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 and is very anxious and pale. The patient admits he takes medication for hypertension. You should 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 a 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. Hyperosmolar hyperglycemic nonketotic coma
  - C. Diabetic ketoacidosis
  - 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. Which of the following signs would help confirm the suspicion 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. Seizures affect only the Reticular Activating System (RAS)
  - B. All seizures produce a state of unresponsiveness
  - C. Not every patient experiencing a seizure will lose consciousness
  - D. All seizures are defined as violent, uncontrolled jerking of the major muscle groups
35. The chief complaint related to a stroke can vary. Which of the following differentiates an occlusive stroke versus a hemorrhage stroke?
- A. Change in the level of consciousness
  - B. Alterations in respiratory patterns
  - C. Sudden onset of severe headache
  - D. Diminishing neurologic status

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. He has a pulse rate of 126, respirations of 40, and a blood pressure of 110/70. You should suspect that the patient is suffering from?
- A. Heat cramps
  - B. Simple dehydration
  - C. Heat exhaustion
  - D. Heat stroke
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 associations 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
  - 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 60/palpation, and respirations are 32 with bilateral crackles. This patient is suffering from what type of shock?
- A. Septic
  - B. Distributive
  - C. Cardiogenic
  - D. Hypovolemic

40. You are assessing a patient with acute nausea and vomiting. The patient may be experiencing:
1. Pericarditis
  2. Pneumonia
  3. Gastric ulcer
  4. Hypertensive crisis
  5. Increased intracranial pressure
- A. 1, 5  
B. 1, 2, 5  
C. 1, 3, 4, 5  
D. 1, 2, 3, 4, 5
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. Reassess the initial assessment
42. A female patient is in anaphylactic shock. The patient has audible upper airway noises, wheezing and cyanosis with a decreasing level of consciousness. The most appropriate immediate course of action is:
- A. Check for a pulse
  - B. Calculate a respiratory rate
  - C. Prepare to assist with ventilations
  - D. Administer O<sub>2</sub> via nasal cannula at 1-6 liters per minute
43. You are responding to a call for nausea and vomiting. Which of the following 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 handled with administrations of medications

44. Stroke may present with which of the following?

1. Change in mental status
2. Aphasia
3. Dysarthria
4. Hemiparesis
5. Numbness

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

45. A patient with 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 a pulse rate of 134 and a blood pressure of 100/64. The skin is hot and flushed. Inspection of the oral mucosa indicates frank dehydration. The best treatment for this patient would include:

1. Encourage oral re-hydration
2. Obtaining an oxygen saturation reading
3. Oxygen therapy
4. Consider application of PASG
5. Monitor neurological status

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

46. While administering ventilations with a bag-valve mask to a patient breathing 6 times a minute, which of the following would best help to minimize gastric distention?

- 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, oriented 63 year old female complaining of weakness. The skin is cool and non-diaphoretic. Mucous membranes are dry with a capillary refill that is delayed. 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. Your 82 year old male patient presents with hematemesis and bloody stools. His vital signs are: pulse rate of 132, blood pressure of 68/palpation and respirations of 24. Mucus membranes are pale. Which of the following exemplifies the most appropriate treatment of this patient?
- A. Oxygen administration
  - B. Discarding the bloody stool
  - C. Positive pressure ventilations with 100% O<sub>2</sub>.
  - D. With medical control permission, administer 1 unit of blood en route to the hospital.
49. Choose the correct statement regarding headache:
- A. The brain has sensory pain fibers and can sense pain
  - B. Cluster headaches exhibit severe pain to one side of the face or head and may have excessive tears on the same side as the pain
  - C. Tension headaches are considered vascular in nature as they are caused by vessel dilation in the brain
  - D. Headaches are not caused by muscles
50. You are assessing a 40-year-old male who is complaining of shortness of breath and chest tightness. He is anxious, awake and alert with increased work of breathing and wheezing on auscultation. His pulse is rapid and bounding. He speaks in short sentences and has a dry, non-productive cough. He states he was jogging in the park when the symptoms began. Which of the following would be your primary field impression?
- A. Asthma
  - B. COPD
  - C. Pneumonia
  - D. Pleural effusion