Kaplan USMLE Step 2 prep: 3 cases where chest pain is a major symptom

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Over the years, the AMA has run dozens of example questions from Kaplan Medical. If you’re preparing for the United States Medical Licensing Examination® (USMLE®) Step 2 exam, you might want to know which questions are most often missed by test-prep takers. We’ve compiled three cases from Kaplan Medical where a major symptom was chest pain. Each question comes with an expert explanation of the answer. You can check out all posts in this series.

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Think you can answer these questions where chest pain is a major symptom? Find out now.

Next best step in chest pain management

A 59-year-old ranch hand presents to the outpatient department with chest pain. Over the past eight months, he has noticed a dull, central chest pain that radiates to his left arm and jaw while walking. The pain subsides after about two minutes of rest but quickly returns upon walking again. This is severely affecting his work, and he is concerned that he will lose his job because of poor productivity. His vital signs are temperature 37.0°C (98.6°F), pulse 74 per minute and blood pressure 135/82 mm Hg. Stress test reveals ST-segment depression in leads I, aVL, V4, V5 and V6. Aspirin, nitrates and metoprolol are initiated. A 12-hour fasting serum LDL cholesterol concentration is 140 mg/dL. He is also started on atorvastatin and advised to implement a low-fat diet. Two months later the patient returns and is still experiencing chest pain
during exercise. However, he states that his productivity at the farm has increased. His resting pulse is 58 beats a minute. Echocardiogram reveals an ejection fraction 55 percent. What is the next best step in management?

**Woman has trouble breathing, chest pain**

A 55-year-old woman with a history of oxygen-dependent COPD comes to the emergency department with worsening shortness of breath and chest pain. The chest pain is described as mostly right-sided and constant but worse with deep inspiration. The pain and shortness of breath awoke her from sleep in the middle of the night and she called emergency medical services to bring her to the emergency department. Her temperature is 37 °C (98.6 °F), blood pressure 170/70 mm Hg, pulse 133 beats a minute, and respirations 28 per minute. Oxygen saturation is 83% on 6 L of oxygen by nasal cannula. She is in moderate respiratory distress and is using accessory muscles to breathe. Her heart rate is tachycardic and regular. The lungs have decreased breath sounds on the right side more than on the left. There are scattered wheezes on the left. The remainder of her physical examination is normal. What is the most appropriate next step in management?

**Determine the cause of pain and weight loss**

A 43-year-old woman with HIV comes to the physician because of painful swallowing, substernal chest pain and weight loss for one month. She takes no medications. Her temperature is 37.8 °C (100 °F). Her CD4+ T-lymphocyte count is 41/mm3. Upper endoscopy shows inflammation and a large, deep ulceration of the distal esophagus. A biopsy specimen of the esophagus shows inflammation and small blood vessel endothelial cells with markedly enlarged, smudgy, eosinophilic nuclei. What is the most likely cause of this patient's symptoms?

For more prep questions on USMLE Steps 1, 2 and 3, view other posts in this series.