

New Developments in Cardiac Testing: The Laboratory Evaluation of Acute Coronary Syndromes: Myocardial Necrosis Markers

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1. Which of the following is not typically included in the diagnosis of Acute Coronary Syndromes (ACS):
 - a. ST segment-elevation myocardial infarction (STEMI)
 - b. Non-ST segment-elevation myocardial infarction (NSTEMI)
 - c. Unstable angina
 - d. All of the above are considered Acute Coronary Syndromes

2. True or False:

The majority of Acute Coronary Syndromes are caused by the progressive buildup of cholesterol-containing plaque that finally achieves a blockage of a coronary artery branch of approximately 85-90%.

3. Which of the following is NOT typically considered a marker of myocardial necrosis in patients with Acute Coronary Syndromes
 - a. Myoglobin
 - b. C-reactive Protein
 - c. Creatine kinase
 - d. Troponin I
 - e. Troponin T

4. Which of the following is NOT a characteristic of the Myoglobin assay for ACS:
 - a. It does not become elevated in patients with renal failure.
 - b. It appears early following the onset of symptoms, typically within 2-3 hours.
 - c. It usually returns to normal within 24 hours and is therefore a useful marker for reinfarction in those with recurrence of symptoms.
 - d. Serum levels increase with response to skeletal muscle injury.

5. Which of the following is TRUE regarding the Creatine Kinase (CK) and CK-MB:
 - a. CK is more specific to acute myocardial infarction (AMI) than is CK-MB
 - b. Elevation of CK-MB is considered specific for AMI
 - c. CK-MB usually returns to normal within 12-24 hours from symptom onset
 - d. CK-MB is found only in the mitochondria of cells whereas CK is in the nucleus

6. True or False:

Elevation of Troponin I above the 99th percentile for a normal population, but below the typical cut-off for acute myocardial infarction, has been shown to identify patients with ACS who are at increased risk of an adverse outcome.

