

## C-Reactive Protein: Acute Phase Protein or Cardiovascular Risk Marker?

1. One limitation of total cholesterol as a screening test for coronary heart disease risk is
  - a) Cholesterol is an expensive and poorly standardized laboratory test
  - b) 35% of people have cholesterol levels above the established risk cutoff
  - c) Coronary heart disease is not associated with elevated cholesterol
  - d) 35% of coronary heart disease occurs in people with cholesterol below the established risk cutoff
  - e) Nearly all coronary heart disease occurs in people with cholesterol below the established risk cutoff
  
2. C-reactive protein is now recognized as
  - a) A marker of inflammation and a marker of metabolic risk
  - b) A marker of cardiovascular risk only
  - c) A marker of inflammation and a marker of cardiovascular risk
  - d) A marker of inflammation only
  - e) A marker of metabolic risk only
  
3. Cholesterol and triglycerides are
  - a) Recognized markers for cardiovascular risk assessment
  - b) Available on high-throughput chemistry analyzers
  - c) Inexpensive and robust laboratory methods
  - d) Modifiable factors that can be monitored during treatment
  - e) All of the above
  
4. Alterable risk factors for coronary heart disease include all of the following except
  - a) Smoking
  - b) Lipid disorders
  - c) Familial disposition
  - d) Obesity
  - e) Lack of exercise
  
5. One important attraction of measuring hsCRP levels in cardiovascular risk assessment is
  - a) Lipids levels are not related to inflammation
  - b) Lipids levels are positively correlated with inflammation
  - c) Lipids levels predict the duration inflammation
  - d) Lipids levels lead to inflammation
  - e) Lipids levels are a direct result of inflammation

6. CRP, being an acute phase reactant and ‘second messenger’ of the inflammatory response, corresponds most closely to
- IL-1 and IL-6
  - TNF- $\alpha$  and Selectins
  - ICAM-1 and TNF- $\alpha$
  - Fibrinogen and serum amyloid-A
  - Selectins and heat-shock proteins
7. All of the following are important requirements for the measurement of a risk factor except
- Population-based cut-off values for interpretation and risk assessment exist
  - Therapeutic modalities exist
  - Reliable analytical tests exist
  - Changes in levels of the risk factor are related to only one disease state (correct)
8. The most probable explanation for markedly elevated (>10 mg/L) CRP levels in a patient is
- Severe cardiovascular disease
  - An acute or chronic inflammatory condition
  - Advanced age of the patient
  - Seasonal or other environmental changes
  - Resolved bacterial infection
9. The recommended approach to a markedly elevated (>10 mg/L) CRP levels in a patient is
- Begin a course of suitable antibiotic therapy
  - No action is required, as CRP levels of > 10 mg/L are normal
  - Discard the first result and repeat the hsCRP measurement again in 2 weeks
  - Begin a course of statin therapy
  - Discard the first result and repeat the hsCRP measurement on the same sample tube
10. The most proven laboratory tests to use in combination with hsCRP are
- Statin (HMG co-A reductase inhibitor) assays
  - Total cholesterol and HDL cholesterol assays
  - Lp-a assays
  - Homocysteine assays
  - Apo B assays



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