

Clinical interpretation of High sensitivity Cardiac Troponin

Serial testing for possible cardiac chest pain

If any elevated troponin value - increased above upper reference limit (URL): >10ng/L in females or >20ng/L in males

STEP 1: Identify significant change in serial testing?

Acute myocardial injury

Yes

No

Troponin level stable

STEP 2: Identify evidence for acute myocardial ischemia?

Myocardial infarction

Yes

No

STEP 3: Identify cause of myocardial ischemia?

Evidence of acute coronary atherothrombosis

Clinical context and mechanisms for oxygen demand and supply imbalance

Type 1 MI

Type 2 MI

Acute myocardial injury

Chronic myocardial injury

Type 1 MI triggers

- Plaque rupture
- Plaque erosion

Type 2 MI examples

- Severe hypertension
- Sustained tachyarrhythmia

Examples

- Acute heart failure
- Myocarditis

Examples

- Structural heart disease
- Chronic kidney disease