



Clinical interpretation of high-sensitivity cardiac troponin results



Clinical interpretation of high-sensitivity cardiac troponin Serial testing for suspected ACS If any elevated troponin value - increased above upper reference limit: >99th sex-specific percentile Step 1: Identify significant change in serial testing? Troponin level stable Step 2: Identify evidence of acute myocardial ischaemia? Myocardial infarction Yes -No · Step 3: Identify cause of myocardial ischaemia? **Evidence of acute** Clinical context and coronary occlusion mechanisms for oxygen demand and supply imbalance without coronary occlusion MI with acute coronary MI due to oxygen supply/ Acute myocardial injury Chronic myocardial occlusion demand mismatch injury Examples without acute coronary · Acute heart failure Examples Examples occlusion Myocarditis Structural heart disease • Plaque rupture/erosion SCAD • Chronic kidney disease Examples · Coronary embolism · With fixed obstructive Vasospasm/ CAD microvascular · Without fixed obstructive dysfunction CAD

Note: Adapted with permission from the <u>Accelerated Chest Pain Risk Evaluation (ACRE) Project, Clinical Excellence Queensland, Queensland Health</u>. For guidance on identifying evidence for acute myocardial ischaemia, refer to High-risk ECG findings and Other signs of myocardial ischaemia on ECG in the guideline.

Abbreviations: ACS, acute coronary syndromes; CAD, coronary artery disease; MI, myocardial infarction; SCAD, spontaneous coronary artery dissection.

Brieger D, Cullen L, Briffa T et al. National Heart Foundation of Australia & Cardiac Society of Australia and New Zealand: Comprehensive Australian clinical guideline for diagnosing and managing acute coronary syndromes 2025. 2025. https://www.heartfoundation.org.au/for-professionals/acs-guideline.

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