Heart Foundation | CSANZ Cardiac Society of Australia and New Zealand

Australian clinical guideline for diagnosing and managing acute coronary syndromes 2025

Guideline summary for healthcare professionals

The guideline provides evidence-based recommendations for diagnosing and managing people with acute coronary syndromes (ACS) in Australia.

1. Assessment and diagnosis

Initial assessment for suspected ACS includes:

- **Electrocardiogram (ECG) within 10 minutes of hospital arrival.** Repeated ECGs or continuous cardiac monitoring while undergoing further assessment may be required.
- **Clinical findings from history and physical examination.** These include presenting symptoms, risk factors and vital signs.
- **Cardiac troponin values.** High-sensitivity cardiac troponin (hs-cTn) assays are now recommended as being diagnostically superior to contemporary (conventional) troponin assays. Elevated hs-cTn values should be defined using sex-specific >99th percentiles.

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All people with suspected or confirmed ACS should receive initial therapeutic management consisting of:

- 300 mg aspirin unless contraindicated.
- Analgesia (nitrates, opioids) as required, unless contraindicated.

For people with confirmed ST-elevation myocardial infarction

Perform immediate reperfusion.

Refer to 2. Hospital care and reperfusion.

For people with suspected (but unconfirmed) ACS

Use a validated clinical decision pathway to assess and manage risk of major adverse cardiac events within 30 days. Clinical decision pathways can be based on either (i) hs-cTn assays alone, or (ii) contemporary troponin assays combined with a clinical risk score.

High risk	Intermediate risk	Low risk
Admit for further diagnostic testing and treatment.	• Serial cTn values >99th percentile – further evaluation as inpatient. • Serial cTn results ≤99th percentile – further evaluation as outpatient.	Further diagnostic testing to exclude acute myocardial infarction is not required. Manage as per *Australian guideline for assessing and managing cardiovascular disease risk* (cvdcheck.org.au).

2. Hospital care and reperfusion

ST-elevation myocardial infarction

Choice of reperfusion strategy is determined by time since symptom onset and how quickly primary percutaneous coronary intervention (PCI) can occur. PCI is preferred if it can be performed within 120 minutes of first medical contact.

- For people presenting to PCI-capable centres, time from first medical contact to wire crossing should not exceed 60 minutes.
- For people presenting to non-PCI-capable centres, time from first medical contact to wire crossing should not exceed 90 minutes.
- If PCI cannot be performed within 120 minutes, immediate fibrinolysis within 30 minutes is recommended. If successful, transfer for coronary angiography between 2–24 hours. If not successful, transfer immediately for rescue PCI.

Non-ST-elevation acute coronary syndromes

The need for, and timing of, invasive management is determined by an assessment of the short- and longer- term risk of death, and recurrent ischaemic and bleeding events.

- If the person is at high or very high risk of adverse cardiovascular events, perform routine invasive coronary angiography with coronary revascularisation (PCI or coronary artery bypass grafting) within two hours if very high risk or within 24 hours if high risk.
- If the person is not at high or very high risk of adverse cardiovascular events, testing for inducible ischaemia (e.g. stress testing) may guide the need for invasive coronary angiography.

If PCI cannot be performed within 120 minutes, immediate fibrinolysis within 30 minutes is recommended.

Antiplatelet and anticoagulant therapy in the acute phase

Timing and type of antiplatelet and/or anticoagulant therapy are dependent on type of ACS, reperfusion strategy, and presence of contraindications or comorbidities (e.g. atrial fibrillation).

Refer to the guideline for recommendations on reperfusion strategies for specific groups, including those with cardiac arrest and/or cardiogenic shock, multivessel disease and spontaneous coronary artery dissection. There are also considerations for reperfusion in older adults with frailty.

3. Recovery and secondary prevention

Cardiac rehabilitation

- All people with ACS should be referred to a person-centred, multi-disciplinary exercise- based cardiac rehabilitation program prior to discharge.
- Programs should be tailored, where possible, to meet the person's goals and preferences, including for women and people from culturally and linguistically diverse communities.

Healthy behaviours

- Provide education on healthy eating, regular physical activity, not smoking, and limiting alcohol intake.
- Screen people for mental health conditions and refer for support as required.
- Refer all people with ACS who smoke for smoking cessation behavioural intervention and pharmacotherapies (e.g. nicotine replacement therapy, varenicline).

Pharmacotherapy

- Post-ACS pharmacotherapy includes antiplatelet therapy, anticoagulant therapy (select people), lipid-modifying therapy, beta blockers (select people), renin-angiotensin antagonist therapies (select people) and colchicine (select people).
- Discuss practical strategies to optimise medicines adherence (e.g. daily alerts, fixed combination medicines).
- Recommend vaccinations for respiratory pathogens (e.g. influenza).

Follow-up care

- Provide a verbal and written discharge summary that includes details of diagnosis and treatment, investigation findings, follow-up appointment details, prescribed medicines, recommended healthy behaviours and a chest pain/ angina management plan.
- Management of comorbidities in people with ACS is critical to optimising outcomes.

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