

Guidelines for the management of acute coronary syndromes 2006

Summary of key recommendations



National Heart Foundation of Australia



The Cardiac Society of Australia and New Zealand

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Summary of key recommendations

Systems of care for patients with acute coronary syndromes

- Effective systems of care are required to deliver optimal care for patients with acute coronary syndromes (ACS), particularly in rural and remote areas.
- Systems of care should be regionally based, and have formal links with specialist centres for consultation and acute interhospital transfer.
- Systems should include appropriate monitoring, feedback and quality improvement components.
- Clinical decisions about care and transfer should take into account patients' cultural and personal beliefs and wishes.

New acute coronary syndrome terminology and implications for diagnosis

- It is important to establish an initial working diagnosis to guide clinical decision making.
- New definitions of myocardial infarction, based heavily on the presence of cardiac biomarkers, have implications for coding and epidemiological studies. However, clinically they do not influence the indications for ongoing prevention therapies.
- Use of the ACS Dataset (part of the National Health Data Dictionary) can facilitate the collection of data relating to the presentation and management of ACS that can be compared and collated within and between health care providers.

Acute management of chest pain

- People experiencing symptoms of an ACS should seek help promptly and activate emergency medical services.
- The most important initial need is access to a defibrillator to avoid early cardiac death resulting from reversible arrhythmias.
- Aspirin should be given early (ie, by emergency or ambulance personnel) unless already taken or contraindicated.
- Oxygen should be given, as well as glyceryl trinitrate and intravenous morphine as required.
- As a minimum, medical facilities receiving patients should be given warning of incoming patients in whom there is a high suspicion of an ACS — particularly ST-segment-elevation myocardial infarction (STEMI) — or whose condition is unstable.
- Where appropriate, a 12-lead electrocardiogram (ECG) should be taken en route and transmitted to a medical facility.
- Where formal protocols are in place, prehospital treatment (including fibrinolysis in appropriate cases) should be facilitated.

Investigations

- The ECG is the sole test required to select patients for emergency reperfusion (fibrinolytic therapy or direct percutaneous coronary intervention [PCI]).
- Patients with STEMI who present within 12 hours of the onset of ischaemic symptoms should have a reperfusion strategy implemented promptly.
- Patients with a suspected ACS without ST-segment elevation on ECG should undergo further observation and investigation to rule out other diagnoses, enable risk stratification and determine the most appropriate treatment strategy.
- Patients whose ECG and cardiac marker levels are normal after suitable period of observation should, where practicable, undergo provocative testing (eg, stress test) before discharge.

Management of patients with ST-segment-elevation myocardial infarction

Adjuvant therapy in association with reperfusion

- All patients undergoing reperfusion therapy for STEMI (PCI or fibrinolysis) should be given aspirin and clopidogrel unless these are contraindicated.
- Antithrombin therapy should be given in combination with PCI or fibrinolytic therapy with fibrin-specific fibrinolytic agents, but antithrombin therapy in conjunction with streptokinase is optional.
- It is reasonable to use abciximab with primary PCI, but glycoprotein (GP) IIb/IIIa inhibitors should generally be avoided with full or reduced doses of fibrinolytic therapy.

Choice of reperfusion strategy

- Time delay (both to first medical contact and potential PCI or fibrinolytic therapy) plays a major role in determining best management of STEMI.
- In general, PCI is the treatment of choice, providing it can be performed promptly by a qualified interventional cardiologist in an appropriate facility.
- In general, the maximum acceptable delay from presentation to balloon inflation is:
 - 60 minutes if a patient presents within 1 hour of symptom onset; or
 - 90 minutes if a patient presents later.

Note: for patients who present late (between 3 and 12 hours after symptom onset) to a facility without PCI capability, it is appropriate to consider transfer for primary PCI if balloon inflation can be achieved within 2 hours (including transport time).

- All PCI facilities should be able to perform angioplasty within 90 minutes of patient presentation.
- Fibrinolysis should be considered early if PCI is not readily available, particularly in rural and remote areas.
- When there are major delays to hospitalisation (ie, more than 30 minutes), prehospital fibrinolysis should be considered.
- Reperfusion is not routinely recommended in patients who present more than 12 hours after symptom onset and who are asymptomatic and haemodynamically stable.

Choice of fibrinolytic agent

- Second-generation fibrin-specific fibrinolytic agents that are available as a bolus (ie, reteplase, tenecteplase) are the fibrinolytics of choice.
- These agents should be available at all centres where fibrinolysis may be required.
- Streptokinase is an inappropriate choice in Aboriginal and Torres Strait Islander patients, or in patients with previous exposure to the drug.

Transfer after STEMI

- Patients who have had STEMI should be considered for early transfer to a tertiary cardiac centre with PCI facilities and links to cardiac surgical facilities.
- If immediate transfer is not possible, patients should be transferred or referred as soon as is practicable for assessment of need for revascularisation (through PCI or coronary artery bypass grafting).

Management of patients with non-ST-segment-elevation acute coronary syndromes

- All patients with non-ST-segment-elevation acute coronary syndromes (NSTEMACS) should have their risk stratified to direct management decisions (see *page 20* for stratification criteria).
- All patients with NSTEMACS should be given aspirin, unless contraindicated.
- High-risk patients with NSTEMACS should be treated with aggressive medical management (including aspirin, clopidogrel, unfractionated heparin or subcutaneous enoxaparin, intravenous tirofiban or eptifibatid and a β -blocker), and arrangements should be made for coronary angiography and revascularisation, except in those with severe comorbidities.
- Intermediate-risk patients with NSTEMACS should undergo an accelerated diagnostic evaluation and further assessment to allow reclassification as low or high risk.
- Low-risk patients with NSTEMACS, after an appropriate period of observation and assessment, may be discharged on upgraded medical therapy for outpatient follow up.

Long-term management after control of myocardial ischaemia

- Before discharge, patients with an ACS should be initiated on a medication regimen, including antiplatelet agent(s), β -blocker, angiotensin-converting enzyme inhibitor, statin and other therapies as appropriate.
- Implantable cardiac defibrillators should be considered in some patients who, despite optimal medical therapy, have persistently depressed left ventricular function more than 6 weeks after STEMI.
- Patients should be given advice on lifestyle changes that will reduce the risk of further coronary heart disease (CHD) events, including smoking cessation, nutrition, alcohol, physical activity and weight management as relevant.
- All patients should have access to, and be actively referred to, comprehensive ongoing prevention and cardiac rehabilitation services.
- All patients should be provided with a written action plan for chest pain.
- Depression and CHD frequently coexist, and in patients with CHD, the presence of depression is more likely to lead to poorer outcomes. Social isolation and lack of social support are also associated with worse outcomes. All patients with CHD should be assessed for depression and level of social support.