

key points

SELECTED BY

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Acute coronary syndrome (ACS), encompassing unstable angina (UA), non-ST elevation myocardial infarction (NSTEMI) and ST-elevation myocardial infarction (STEMI), is often the result of an acute thrombotic occlusion of the coronary vessels, associated with atheromatous plaque rupture or erosion.

ACS is associated with a severely impaired prognosis and requires prompt and efficient specialist treatment. The clinical presentation may be identical across all three components of ACS. Establishing an accurate diagnosis without delay is of paramount importance to start treatment promptly. Patients with suspected ACS need to be referred immediately to A&E.

Important features pointing towards a diagnosis of ACS include: typical characteristics of chest pain, presence of risk factors, and ECG changes suggestive of myocardial ischaemia. Chest discomfort in patients with ACS typically occurs at rest, is anginal in character and can range from mild tightness to central crushing chest pain. This is not infrequently associated with symptoms such as nausea, dyspnoea or diaphoresis. The chest pain may radiate to the arms, back or jaw and is often >20 minutes in duration.

The importance of an accurate clinical history together with a detailed examination should not be underestimated to rule in or rule out ACS. Initial investigations are the same for all ACS events, with the need for urgent serial ECGs and the measurement of cardiac troponins, to assess myocardial damage. In NSTEMI, ECG changes suggestive of ischaemia are often present and associated with elevated cardiac troponin levels. In UA, there is a considerable reduction in myocardial perfusion leading to symptoms; however, there is no rise in cardiac troponin levels.

Initial treatment, the prehospital phase, should be initiated rapidly. It includes the use of aspirin, nitrates, morphine and oxygen (if hypoxic). Risk stratification is an imperative process in the assessment of ACS to allow efficient delivery of specialist care. Current treatment is based on tackling the pathophysiological mechanisms leading to myocardial ischaemia and necrosis, preventing and minimising further thrombotic occlusion of the epicardial coronary arteries and reducing myocardial damage. Treatment includes: antiplatelet drugs; antithrombotic agents; angina drugs; analgesic interventions; and PCI. GPs play a major role in ensuring optimal patient management after hospital discharge and secondary prevention of cardiovascular events.