

Inclusion criteria and standard definitions **[posted as supplied by author]**

Inclusion criteria
To be eligible for inclusion, patients had to be ≥ 18 years old and alive at hospital presentation, admitted for an ACS as a presumptive diagnosis (i.e., have symptoms consistent with acute ischaemia), and have at least one of the following: ECG changes consistent with ACS, serial increases in serum biochemical markers of cardiac necrosis, and/or documentation of coronary artery disease. The qualifying ACS must not have been precipitated by significant non-cardiovascular comorbidity such as trauma or surgery.
STEMI
Patients were diagnosed with STEMI when they had new or presumed new ST-segment elevation ≥ 1 mm seen in any location, or new LBBB on the index or subsequent ECG with at least one positive cardiac biochemical marker of necrosis (including troponin measurements). The ECG changes were assumed to be new unless there was documented evidence that the changes were old. Those who had a myocardial infarction at presentation, or evolving myocardial infarction during the first 24 hrs, were identified as myocardial infarction at presentation.
NSTEMI
Cases of NSTEMI required at least one elevated cardiac biochemical marker of necrosis without new STEMI on the index or subsequent ECGs.
Unstable angina
Unstable angina was diagnosed when markers of myocardial necrosis were below the diagnostic threshold for myocardial infarction. Patients originally admitted because of unstable angina but in whom myocardial infarction evolved during the hospital stay (beyond 24 hrs) were classified as having a myocardial infarction as an endpoint.

Myocardial infarction >24 hours after presentation to hospital

Myocardial infarction is documented by elevated enzymes or markers above the diagnostic limit of the local laboratory, with the time of the first qualifying enzymes/markers determining the time of diagnosis. This includes:

- Patients with an admission diagnosis of unstable angina who convert to a myocardial infarction ≥ 24 hrs after presentation
- Patients diagnosed with a myocardial infarction after CABG or PCI (and ≥ 24 hrs after presentation) as long as they qualified for GRACE before the intervention

Post CABG or PCI myocardial infarction criteria:

- Following PCI, CK-MB (or CPK) elevation must be $>3 \times \text{ULN}$
- Following CABG, CK-MB (or CPK) must be $>5 \times \text{ULN}$

Reinfarction

Diagnosis of a recurrent myocardial infarction confirmed by ECG changes or elevation of cardiac markers.

Criteria for patients with an initial diagnosis of myocardial infarction as the qualifying event who subsequently reinfarct:

In patients with acute myocardial infarction as the qualifying event, enzyme criteria for recurrent infarction are:

- A. Re-elevation of the CK-MB to above the ULN and increased by at least 50% over the previous value.
- B. If CK-MB is not available, then re-elevation of total CPK must be either $> 2 \times \text{ULN}$ and increased by 25% over the previous value, or $> 1.5 \times \text{ULN}$ and increased by at least 50% over the previous value.
- C. Following PCI, CK-MB (or CK) elevation must be $>3 \times \text{ULN}$ and increased by at least 50% over previous value.
- D. Following CABG, the criteria for recurrent infarction require both enzyme criteria in C above and ECG changes consistent with myocardial infarction.

Endpoint and clinical definitions

In-hospital and post-discharge death was defined as all-cause mortality.

Killip class was defined according to the classification of Killip and Kimball¹: class I, no signs of heart failure; class II, rales in the lungs; class III, pulmonary oedema; class IV, cardiogenic shock.

ECGs were read locally and were noted to have ST elevation or ST depression in anterior, inferior, or lateral lead groups of ≥ 1 mm, Q waves 1/3 the height of the R wave or >0.04 seconds, or LBBB.

ACS=acute coronary syndrome. CABG=coronary artery bypass grafting. CK-MB=creatinine kinase (MB fraction). CPK=creatinine phosphokinase. ECG=electrocardiographic. LBBB=Left bundle branch block. NSTEMI=non-ST-segment elevation myocardial infarction. PCI=percutaneous coronary intervention. STEMI=ST-segment elevation myocardial infarction. ULN=upper limit of normal.

1 Killip T 3rd, Kimball JT. Treatment of myocardial infarction in a coronary care unit. A two year experience with 250 patients. *Am J Cardiol* 1967;20:457-64.