Myocardial infarction: PCI in less than 60 minutes

NICE indicator

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Indicator

The proportion of patients with ST-segment elevation myocardial infarction (STEMI) who had balloon inflation for primary percutaneous coronary intervention (PCI) in less than 60 minutes from time of admission at a centre with primary PCI facilities.

Indicator type

Network / system level indicator.

The indicator would be appropriate to understand and report on the performance of networks or systems of providers.

> This document does not represent formal NICE guidance. For a full list of NICE indicators, see our menu of indicators.
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> To find out how to use indicators and how we develop them, see our NICE indicator process guide.

Rationale

All patients with ST-segment elevation myocardial infarction (STEMI) presenting 12 hours or less after onset of symptoms should undergo coronary reperfusion therapy. Heart muscle starts to be lost once a coronary artery is blocked and the sooner reperfusion therapy is delivered the better the outcome for the patient. Coronary angiography with follow-on primary PCI is the preferred reperfusion strategy for people with STEMI if it can be delivered within 120 minutes of the time when fibrinolysis could have been given. The National Audit of Percutaneous Coronary Intervention (2020) references the British Cardiovascular Intervention Society position statement that at least 75% of all patients should have a door to balloon time of less than 60 minutes.

Source guidance

- Acute coronary syndromes. NICE guideline NG185 (2020), recommendation 1.1.3

- Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. European Society of Cardiology (2017)

Specification

Numerator: The number of patients in the denominator who had balloon inflation for primary PCI in less than 60 minutes from admission at a centre with primary PCI facilities.

Denominator: The number of patients with STEMI treated with primary PCI.

Calculation: Numerator divided by denominator, multiplied by 100.

Exclusions:

- Patients who do not proceed to balloon inflation.

The Percutaneous coronary interventions (PCI) dataset details the following exclusions:

- Patients presenting in cardiogenic shock.

- Patients requiring pre-PCI ventilation.

Data source: Percutaneous coronary interventions (PCI) dataset.

Minimum population: The indicator would be appropriate to understand and report on the performance of networks or systems of providers.

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