Acute coronary syndromes: 3c-PCI patients with STEMI with door-to-device within 90 minutes

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# Acute coronary syndromes: 3c-PCI patients with STEMI with door-to-device within 90 minutes

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| Identifying and definitional attributes |
| Metadata item type: | Indicator |
| Indicator type: | Indicator |
| Short name: | Indicator 3c-PCI patients with STEMI with door-to-device within 90 minutes |
| METEOR identifier: | 612070 |
| Registration status: | [Health](https://meteor.aihw.gov.au/RegistrationAuthority/12), Standard 12/09/2016 |
| Description: | Proportion of patients with [**ST-segment-elevation myocardial infarction (STEMI)**](https://meteor.aihw.gov.au/content/629401) treated with percutaneous coronary intervention (PCI), who have a door-to-device time of 90 minutes or less, after arrival at a PCI-capable hospital, or 120 minutes or less if transferred from a non PCI-capable hospital. |
| Rationale: | Timely PCI has been shown to improve short-term and long-term outcomes such as a reduction in mortality, myocardial infarctions and strokes in patients with STEMI who present to hospital within 12 hours of symptom onset (Keeley et al. 2003; GUSTO IIb Angioplasty Substudy Investigators 1997).The G*uidelines for the management of acute coronary syndromes 2006* state that "*a time delay of 90 minutes from first medical contact to balloon inflation is the maximum desirable*" (Acute Coronary Syndrome Guidelines Working Group 2006). |
| Indicator set: | [Clinical care standard indicators: acute coronary syndromes](https://meteor.aihw.gov.au/content/612027)       [Health](https://meteor.aihw.gov.au/RegistrationAuthority/12), Standard 12/09/2016 |
| Outcome area: | [Timely reperfusion](https://meteor.aihw.gov.au/content/624371)       [Health](https://meteor.aihw.gov.au/RegistrationAuthority/12), Standard 12/09/2016 |

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| Collection and usage attributes |
| Computation description: | Both the numerator and the denominator include patients with STEMI.For the numerator, patients undergoing PCI include those for which one of the following [Episode of admitted patient care—procedure, code (ACHI 9th edn) NNNNN-NN](https://meteor.aihw.gov.au/content/589101) is recorded:* 38300-00 [670] Percutaneous transluminal balloon angioplasty of 1 coronary artery
* 38303-00 [670] Percutaneous transluminal balloon angioplasty of >=2 coronary arteries
* 38306-00 [671] Percutaneous insertion of 1 transluminal stent into single coronary artery
* 38306-01 [671] Percutaneous insertion of >= 2 transluminal stents into single coronary artery
* 38306-02 [671] Percutaneous insertion of >= 2 transluminal stents into multiple coronary arteries.

The denominator excludes patients for whom PCI is contraindicated (where the contraindication is documented in their medical record). Contraindications for PCI and fibrinolysis may include advance care directives, being on a palliative care pathway, and clinical judgement, subject to discussion with patients, family and carers.For hospitals using the [Acute coronary syndrome (clinical) National best practice data set](https://meteor.aihw.gov.au/content/621789), the door-to-device time can be calculated as the difference between the following data elements:* [Episode of admitted patient care—admission date, DDMMYYYY](https://meteor.aihw.gov.au/content/269967) combined with [Episode of admitted patient care—admission time, hhmm](https://meteor.aihw.gov.au/content/269972)

and* [Person—primary percutaneous coronary intervention date, DDMMYYYY](https://meteor.aihw.gov.au/content/359175) combined with [Person—primary percutaneous coronary intervention time, hhmm](https://meteor.aihw.gov.au/content/359201)

However, this can only be calculated for patients arriving at a PCI-capable hospital. For patients arriving at another hospital and then being transferred to the PCI-capable hospital, the time between the patient's admission at the other facility and transfer and admission to the PCI-capable facility would need to be added to the above time.Presented as a percentage. |
| Computation: | (Numerator ÷ denominator) x 100 |
| Numerator: | Number of patients with STEMI, treated with PCI, who have a door-to-device time of 90 minutes or less, after arrival at a PCI-capable hospital, or 120 minutes or less if transferred from a non PCI-capable hospital. |
| Denominator: | Number of patients with STEMI who arrive at a PCI-capable hospital or are transferred from a non PCI‑capable hospital. |
| Comments: | It is recognised that this target of 90 minutes is difficult to achieve in the management of patients with STEMI who suffer a cardiac arrest, and for whom advanced resuscitation is effected prior to PCI. |
| Representational attributes |
| Representation class: | Percentage |
| Data type: | Real |
| Unit of measure: | Episode |
| Format: | N[NN] |
| Source and reference attributes |
| Submitting organisation: | Australian Commission on Safety and Quality in Health Care |
| Reference documents: | Acute Coronary Syndrome Guidelines Working Group 2006. Guidelines for the management of acute coronary syndromes 2006. Medical Journal of Australia 184(8):S1–S30.GUSTO IIb Angioplasty Substudy Investigators 1997. A clinical trial comparing primary coronary angioplasty with tissue plasminogen activator for acute myocardial infarction. New England Journal of Medicine 336(23):1621–1628.Keeley EC, Boura JA, & Grines CL 2003. Primary angioplasty versus intravenous thrombolytic therapy for acute myocardial infarction: a quantitative review of 23 randomised trials. Lancet 361(9351):13–20. |