Hip fracture care clinical care standard indicators: 4a- Proportion of patients with a hip fracture receiving surgery within 48 hours of presentation with the hip fracture

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Identifying and definitional attributes

Metadata item type:	Indicator
Indicator type:	Indicator
Short name:	Indicator 4a-Proportion of patients with a hip fracture receiving surgery within 48 hours of presentation with the hip fracture
METEOR identifier:	628088
Registration status:	Health, Standard 12/09/2016
Description:	Proportion of patients admitted to hospital with a **hip fracture**, or sustaining a hip fracture while in hospital, receiving surgery within 48 hours of presentation with the hip fracture.
Rationale:	Delay to surgical repair of hip fracture of 48 hours or more is associated with greater levels of post-operative morbidity and mortality (Shiga et al. 2008; Khan et al. 2009).
Indicator set:	Clinical care standard indicators: hip fracture Australian Commission on Safety and Quality in Health Care, Superseded 18/06/2018 Health, Standard 12/09/2016
Outcome area:	Timing of surgery Health, Standard 12/09/2016

Collection and usage attributes

Computation description:	For the numerator, the 48 hour timeframe of presentation with a hip fracture is counted as follows: • For patients transferred from another hospital, use the emergency department (ED)/hospital arrival date (transferring hospital). This is the date that the patient presented to the ED at the transferring hospital, or, if the transferring hospital does not have an ED, then this is the date that the patient presented to or was admitted to the transferring hospital. Note that if the patient is transferred several times, use the ED/hospital arrival date of the hospital at which the patient first presented with the hip fracture. • For patients directly presenting to the operating hospital, use the ED arrival date (operating hospital) OR the date of admission, whichever is earlier. • For patients with a hip fracture resulting from a fall in hospital, use the date of the fracture recorded in the relevant admitted patient information system. Both the numerator and the denominator only include episodes whereby if Episode of admitted patient care—admission date, DDMMYYYY is equal to Episode of admitted patient care—separation date, DDMMYYYY, then Episode of admitted patient care—separation mode, code N is not equal to 8 Died. Both the numerator and the denominator exclude patients for whom surgery was not planned at admission (that is, patients who refuse surgery, patients with an advance care directive or on a palliative care pathway), except for admitted patients who sustain a hip fracture in hospital. Presented as a percentage.
Computation:	(Numerator ÷ denominator) x 100

Numerator: Number of patients admitted to hospital with a hip fracture who receive surgery within 48 hours of presentation with hip fracture.

Denominator: Number of patients admitted to hospital with a hip fracture who underwent surgery for their hip fracture.

Comments: For hospitals collecting the Australian and New Zealand Hip Fracture Data Registry (ANZHFR) data set (ANZHFR Steering Group 2013), the arrival/presentation date of patients with a hip fracture presenting to other hospitals and transferred to the operating hospital can be obtained through this data set [1]. However, other hospitals may have to use a unique identifier (preferably across the geographic region that makes up the catchment population) or linked data at the state level to obtain the arrival/presentation date of patients transferred in to correctly calculate whether surgery was achieved within 48 hours.

For patients with a hip fracture resulting from a fall in hospital, the in-patient fracture date can be obtained from the ANZHFR data set [2]. Else the date needs to be obtained from the patient's medical record (as it is usually not reported in the routine administrative data sets).

Surgery within 48 hours of presentation may not be feasible for health services covering some remote areas, however, networks and systems should be in place to ensure coordinated transfer and timely surgery of patients who sustain a hip fracture in these areas.

Patients that are prescribed new oral anticoagulants (NOAC) may require additional time to optimise for surgery (Tran et al. 2014).

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[1] See variables *ED/ hospital arrival date (transfer hospital)* and *ED arrival date (operating hospital)*.

[2] See variable *In-patient fracture date.*

Representational attributes

Representation class: Percentage

Data type: Real

Unit of measure: Service event

Format: N[NN]

Source and reference attributes

Submitting organisation: Australian Commission on Safety and Quality in Health Care

Reference documents: ANZHFR (Australian and New Zealand Hip Fracture Registry) Steering Group 2013. Data dictionary. Sydney: ANZHFR. Viewed 5 May 2016, http://www.anzhfr.org/images/resources/Data%20Dictionary/%20v8%20Dec%202013.pdf.

Khan SK, Kalra S, Khanna A, Thiruvengada MM & Parker MJ 2009. Timing of surgery for hip fractures: a systematic review of 52 published studies involving 291,413 patients. Injury 40(7):692-7.

Shiga T, Wajima Z & Ohe Y 2008. Is operative delay associated with increased mortality of hip fracture patients? Systematic review, meta-analysis, and meta-regression. Canadian Journal of Anaesthesia 55(3):146-54.

Tran H, Joseph J, Young L, McRae S, Curnow J, Nandurkar H, Wood P, McLintock et al. 2014. New oral anticoagulants: a practical guide on prescription, laboratory testing and peri-procedural/bleeding management. Internal Medicine Journal (44):525-536.