ANZHFR

Australian & New Zealand Hip Fracture Registry

Data Dictionary
Version 13

October 2020

Australian and New Zealand Hip Fracture Registry

Background: A minimum data set (MDS) was created for the Australian and New Zealand (ANZ) Hip Fracture Registry Steering Group. The purpose of the minimum dataset and registry is to support consistent, local collection of data across Australia and New Zealand to enable facilities to compare practice and outcomes for hip fracture care against national clinical guidelines and standards of care. The MDS has been developed to capture information relevant to ANZ Hip Fracture Guidelines and national Hip Fracture Care Clinical Care Standard and is comparable to the United Kingdom (UK) national hip fracture registry and other registries emerging across the world.

Purpose: The ultimate goal of the ANZ Hip Fracture Registry is to use data to improve performance and maximise outcomes for older people who fracture their hip by reducing mortality and morbidity, reducing rates of institutionalisation, maximising functional independence and preventing future fractures by monitoring secondary prevention interventions.

MDS development: The MDS has been reviewed by the ANZ Hip Fracture Registry Steering Group, which consists of representatives of key professional and consumer bodies from Australia and New Zealand: Australian and New Zealand Society for Geriatric Medicine (ANZSGM); Australian Orthopaedic Association (AOA); Australian and New Zealand College of Anaesthetists (ANZCA); Australasian College of Emergency Medicine (ACEM); New Zealand Orthopaedic Association (NZOA); Royal Australasian College of Surgeons (RACS); Royal Australasian College of Physicians (RACP); Australian and New Zealand Orthopaedic Nurses Association (ANZONA); Australasian Faculty of Rehabilitation Medicine (AFRM); Australian Physiotherapy Association (APA); Osteoporosis Australia (OA); and Osteoporosis New Zealand (ONZ). This version of the ANZHFR Data Dictionary includes data variables for both the Patient Level Audit (the Registry) and the Facility Level Audit (annual snapshot of hospital level processes and protocols).

The data variables collected in the MDS (Patient Level) are from six (6) key components of care and include: (1) Patient information; (2) Admission; (3) Assessment; (4) Treatment; (5) Discharge; and (7) 120 day follow-up. The data variables collected in the MDS (Facility Level) cover: (1) Hospital Information; (2) Model of Care; (3) Protocols and processes; (4) Beyond the acute hospital stay; (5) Other aspects of care.

Core and non-core data items
Core variables are those variables collected by all using the minimum dataset e.g. date and time of admission, or type of hip fracture, and will be uploaded to the ANZ Hip Fracture Registry (ANZHFR). A number of these items will be considered mandatory for the purposes of forming a meaningful registry. Non-core items are collected at a local level and are held either locally or on the central server, or are generated automatically at a central level using data uploaded.

Review: The MDS will be reviewed annually by the ANZHFR Steering Group. It is anticipated that any new item to be added must be presented with a clear case for the benefits of adding it. Equally the Committee will be charged with removing redundant items which are felt not to add value either at a facility or central level.

Patient Inclusion: A person aged 50 years and older, who has been admitted to a participating hospital with an acutely fractured hip from a minimal or low trauma injury, and who undergoes either surgical or non-surgical management of the hip fracture.

Version history:

Version	Description of Change	Author	Date Changed	Status
1.0	Draft	Rebecca Mitchell	July 2012	Rough draft
2.0	Draft	Rebecca Mitchell	6 Dec 2012	Draft
3.0	Draft	Rebecca Mitchell	8 Jan 2013	Draft
4.0	Draft	Rebecca Mitchell	3 May 2013	Draft
5.0	Draft	Rebecca Mitchell	31 May 2013	Draft
6.0	Penultimate	Rebecca Mitchell	21 June 2013	Draft
7.0	Final	Rebecca Mitchell	5 July 2013	Final
8.0	Revised to ensure data capture consistent with Guideline recommendations	Jacqui Close	4 Dec 2013	Final
8.1	Revised to ensure data capture consistent with Guideline recommendations and the requirement to capture identifying data for follow up and data linkage	Jacqui Close	11 Dec 2013	Final
9.0	Review by the Steering Group against the 2014 ANZ Guidelines for Hip Fracture Care and the 2016 ACSQHC Hip Fracture Care Clinical Care Standard and Indicators; incorporation of definitions for the Facility Level Audit variables	Elizabeth Armstrong	August 2016	Draft
9.1	Revision with Steering Group and Data Committee feedback	Elizabeth Armstrong	September 2016	Final Draft
10.0	Review by the Steering Group to incorporate feedback from participating sites and ensure data dictionary continues to be fit for purpose	Steering Group	August 2017	Draft
10.1	Revision with Data Committee feedback	Data Committee	October 2017	Draft
10.2	Revision with Data Committee feedback	Data Committee	October 2017	Final Draft
11	Annual Steering Group review to ensure data dictionary continues to be fit for purpose	Data Committee	October 2018	Final
12	Annual Steering Group review to ensure data dictionary continues to be fit for purpose	Data Committee	October 2019	Final Draft
13	Annual review of the data set	Data Committee	October 2020	Final

ANZHFR Patient Level Audit

Section 1	**Patient information**

Variable Number	1.01
Variable	**Unique identifier**
Variable Name	ID
Definition	A consecutive number allocated to each record of a hip fracture
Justification	To allow for the identification of records
Format	10 digit numeric
Status	Non-core (created centrally)
Coding Source	
Coding Frame	
DD Comments	This is the unique record number used to identify each record

---

Variable Number	1.02
Variable	**Australian and New Zealand jurisdiction**
Variable Name	Area
Definition	The Australian or New Zealand jurisdiction of the hospital
Justification	To enable the identification of hospitals in Australian and New Zealand jurisdictions
Format	2 digit numeric
Status	Non-core (created centrally)
Coding Source	Adapted from the National Health Data Dictionary, Version 15 (METeOR identifier 269941)
Coding Frame	1 New South Wales 2 Victoria 3 Queensland 4 South Australia 5 Western Australia 6 Tasmania 7 Northern Territory 8 Australian Capital Territory 9 Other Territories (Cocos Keeling Islands, Christmas Island and Jervis Bay Territory) 10 New Zealand
DD Comments	The order used here is the standard for the Australian Bureau of Statistics (ABS).

Variable Number	1.03
Variable	**First name of patient**
Variable Name	Name
Definition	First name of the patient
Justification	To allow for checking of duplicate entries for the one person and to contact the patient for the 120 day follow-up
Format	Character
Status	Core
Coding Source	To allow for checking of duplicate entries for the one person as well as the ability to follow up patient including future data linkage
Coding Frame	Character string
DD Comments	The format should be the same as that indicated by the person (for example written on a form) or in the same format as that printed on an identification card, such as Medicare card, to ensure consistent collection of name data

---

Variable Number	1.04
Variable	**Surname of patient**
Variable Name	Surname
Definition	Surname of the patient
Justification	To allow for checking of duplicate entries for the one person as well as the ability to follow up patient including future data linkage
Format	Character
Status	Core
Coding Source	
Coding Frame	
DD Comments	The format should be the same as that indicated by the person (for example written on a form) or in the same format as that printed on an identification card, such as Medicare card, to ensure consistent collection of name data

---

Variable Number	1.05
Variable	**Hospital MRN / URN / event number**
Variable Name	MRN
Definition	Hospital Medical Record Number
Justification	Unique person-identifier for each patient in each hospital and contributes to collection of information on follow up e.g. re-operation
Format	String XXXXXX[X(14)]
Status	Core
Coding Source	
Coding Frame	
DD Comments	Key field: must be entered to create a patient record. Individual hospitals use their own alphabetic, numeric, or alphanumeric coding systems. With the eventual move to E-Health in Australia, each patient will have a unique id nation-wide. Note: Western Australia uses URN. New Zealand to record the hospital event number.

Variable Number	1.06
Variable	**Contact telephone number for patient**
Variable Name	phone
Definition	Contact telephone number of the patient
Justification	To contact the patient for the 120 day follow-up
Format	10 digit numeric
Status	Core
Coding Source	
Coding Frame	
DD Comments	Only record one telephone number. This should be the best land line telephone or mobile phone number to contact the patient for the 120 day follow-up. Record the prefix plus telephone number without punctuation, for example, 08 8226 6000 or 0417 123456.

Variable Number	1.07
Variable	**Date of birth**
Variable Name	DOB
Definition	Date of birth of the patient
Justification	Basic demographic details. Required for probabilistic data linkage
Format	8 digit, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 287007)
Coding Frame	DD/MM/YYYY
DD Comments	Key field Australia: must be entered to create a patient record. Only include people who are 50 years and older at the time of their hip fracture admission. Date not known is recorded as: 01011900.

Variable Number	1.08
Variable	**Age derived**
Variable Name	Age
Definition	Age of the patient in (completed) years at admission
Justification	Basic demographic details
Format	3 digit, N[NN]
Status	Non-core (created centrally)
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 303794)
Coding Frame	999 Unknown/Not stated
DD Comments	If age (or date of birth) is unknown or not stated, and cannot be estimated, use Code 999. Age to be calculated automatically from Date of Birth and ED/hospital arrival date (operating hospital) or ED/hospital arrival date (transfer hospital) for patients transferred to an operating hospital

---

Variable Number	1.09
Variable	**Sex of person**
Variable Name	Sex
Definition	Sex of the patient
Justification	Basic demographic details
Format	1 digit numeric
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	1 Male 2 Female 3 Intersex or indeterminate 9 Not stated / inadequately described
DD Comments	Key field: must be entered to create a patient record.

Variable Number	1.10
Variable	**Australian Indigenous status**
Variable Name	Indig
Definition	Was the patient of Aboriginal or Torres Strait Islander origin?
Justification	Basic demographic details
Format	1 digit numeric, N
Status	Core
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 291036)
Coding Frame	1 Aboriginal but not Torres Strait Islander origin 2 Torres Strait Islander but not Aboriginal origin 3 Both Aboriginal and Torres Strait Islander origin 4 Neither Aboriginal or Torres Strait Islander origin 9 Not stated / inadequately described
DD Comments	An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives. Collected Australia only

---

Variable Number	1.11
Variable	**NZ ethnic status**
Variable Name	ethnic
Definition	Was the patient of Māori or Pacific Peoples origin?
Justification	Basic demographic details
Format	1 digit numeric
Status	Core
Coding Source	Statistical Standard for Ethnicity, 2005
Coding Frame	1 European 2 Māori 3 Pacific Peoples 4 Asian 5 Middle Eastern / Latin America / African 6 Other Ethnicity 9 Not elsewhere included
DD Comments	There is no classification for people who might identify as more than one ethnicity in New Zealand. Statistics NZ has an algorithm that is used to determine primary ethic status. The double identification is handled by inviting individuals to record up to 3 ethnicities that they identify with. The algorithm is then used to identify a primary ethnicity. The ethnicity that is derived in the NZ hospital system should be used here as this ethnicity will be the primary ethnicity. Collected New Zealand only.

Variable Number	1.12
Variable	**Patient's postcode**
Variable Name	Apcode
Definition	What was the postcode of the suburb of the usual residence of the patient?
Justification	Basic demographic details
Format	4 digit numeric, {NNNN}
Status	Core
Coding Source	Australia Post or New Zealand Post websites (www.auspost.com.au or www.nzpost.co.nz) provide up-to-date postcodes and localities
Coding Frame	1000 No fixed abode 9998 Overseas 9999 Postcode not known
DD Comments	Use a valid Australian or New Zealand postcode

Variable Number	1.13
Variable	**Medicare number (Australia) / National Health Index (New Zealand)**
Variable Name	Medicare
Definition	Patient's Medicare number
Justification	To allow for checking of duplicate entries for the one person and for multiple admissions
Format	Characters, N(11)
Status	Core
Coding Source	
Coding Frame	
DD Comments	Enter the full Medicare number for an individual (i.e. family number plus person individual reference number). Key field New Zealand: must be entered to create a patient record. New Zealand will provide the National Health Index (NHI) which is a unique number assigned to every person who uses health and disability services in New Zealand. New Zealand will use this variable as the main mechanism to identify each patient.

Variable Number	1.14
Variable	**Patient type**
Variable Name	ptype
Definition	Payment status
Justification	To identify the source of revenue received by a health industry relevant organisation
Format	3 digit numeric
Status	Core
Coding Source	Adapted from the National Health Data Dictionary, Version 15
Coding Frame	1 Public 2 Private 3 Overseas 9 Not known
DD Comments	For New Zealand all surgery for hip fractures takes place in the public sector. There will be the occasional patient from overseas and this should be noted accordingly. In Australia, private sector patients include those with treatment funded by: private health insurance, workers' compensation insurance, motor vehicle third party insurance, other compensation (e.g. Public liability, common law, medical negligence), private households (i.e. self-funded and out-of-pocket expenditure), non-profit institutions serving households, corporations (other than health insurance), other private sector revenue In Australia, public sector patients include those with treatment funded by: Medicare, Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme, Department of Veterans' Affairs, National Health and Medical Research Council, Australian Health Care Agreements, other Special Purpose payments, Other Australian Government Departments, State/Territory non-health departments, or other public sector revenue

---

Variable Number	1.15
Variable	**Usual place of residence**
Variable Name	uresidence
Definition	What is the usual place of residence of the patient?
Justification	Type of accommodation before and after admission are collected to compare where the patient has come from (what was their usual accommodation) and where they are going to (what will become their usual accommodation). This is an indicator of patient outcome.
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the Australasian Rehabilitation Outcomes Centre Inpatient Dataset, Version 3.0; NSW SNAP Data Collection, Version 4.0
Coding Frame	1 Private residence (including unit in retirement village) 2 Residential aged care facility 3 Other 4 Not known
DD Comments	Record the patient's usual accommodation type at admission. Residential aged care refers to a supported facility that provides accommodation and care for a person on a long-term basis. This may include multi-purpose services in Australia and private hospitals or rest homes in New Zealand. If the patient lives with a relative or in a community group home or boarding house code 'private residence'. If the patient was admitted from respite care, record their usual place of residence when not in respite care.

Variable Number	1.16
Variable	**Statistical linkage key 581**
Variable Name	slk581
Definition	A specific code (key) that can be used to bring together two or more records belonging to the same individual. It is represented by a code consisting of characters from the person's surname, first name, date of birth and gender.
Justification	Brings together data from different sources to enable greater understanding of the utilisation of health care and/or services. Clinical quality registries should have the capacity to enhance their value through the use of linkage to other datasets (Australian Commission on Safety and Quality in Health Care Framework for Australian Clinical Quality Registries 2014)
Format	14 Characters XXXXXDDMMYYYYN
Status	Core (created centrally)
Coding Source	National Health Data Dictionary, Version 16 (METeOR identifier 349895)
Coding Frame	
DD Comments	It is represented by a code consisting of the second, third and fifth characters of a person's family name, the second and third letters of the person's given name, the day, month and year when the person was born and the sex of the person, concatenated in that order. In Australia, the linkage key is designed to make it possible to count number of clients and services they received, without counting the same client more than once. It can also be used for linking to other related data collections. This may be useful for New Zealand, although the NHI is usually the best and only identifier used for data matching in New Zealand.

Section 2	Admission

Variable Number	2.01
Variable	**Establishment identifier of operating hospital**
Variable Name	Ahoscode
Definition	Name of the operating hospital where the patient received surgery for the hip fracture
Justification	To allow for the identification of the establishment for benchmarking and comparison purposes
Format	Character
Status	Core
Coding Source	
Coding Frame	
DD Comments	Note: For data analysis each hospital will have to be given a unique number

---

Variable Number	2.02
Variable	**Admission via ED of operating hospital**
Variable Name	EDadmit
Definition	Did the patient present directly to the ED of the operating hospital?
Justification	Ability to monitor the time spent in ED.
Format	1 digit
Status	Core
Coding Source	
Coding Frame	1 Yes 2 No - transferred from another hospital 3 No - in-patient fall 9 Other / not known
DD Comments	If the patient was admitted via the ED of the operating hospital, information on the date and time that the patient arrived and left the ED of the operating hospital will be recorded.

Variable Number	2.03
Variable	**Transfer hospital**
Variable Name	Athoscode
Definition	Name of the hospital where the patient first presented and was diagnosed with a hip fracture
Justification	To allow for the identification of the establishment for benchmarking and comparison purposes
Format	Character
Status	Core
Coding Source	
Coding Frame	Not transferred If transferred enter hospital name of first transfer hospital
DD Comments	If the patient has not been transferred, this will need to be indicated by recording 'not transferred'. Note: For data analysis, each hospital will be given a unique number. If patient is not transferred, data variables 2.04 and 2.05 regarding transfer date/time should be automatically filled in as 'not relevant'

Variable Number	2.04
Variable	**ED / hospital arrival date (transfer hospital)**
Variable Name	tarrdate
Definition	Date on which the patient presented to the transferring hospital with a hip fracture
Justification	To enable the identification of the date of arrival in transferring hospital. Will allow for quantification of true time to surgery and overall LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	If the patient is transferred several times, this should be the hospital where the patient first presented with the hip fracture. If the presenting hospital has no ED or the patient wasn't admitted through ED, state the date presenting to the transferring hospital with a hip fracture. If the hip fracture occurred as an in-patient, record the date the fracture was diagnosed. Note: 00000000 indicates that the patient did not present through the ED and 99999998 indicates that patient was not transferred (i.e. not relevant) and 01011900 indicates that the date was not known. To be used in the calculation of time to surgery and total LOS in the health system for the care episode.

Variable Number	2.05
Variable	**ED arrival time (transfer hospital)**
Variable Name	tarrtime
Definition	Time at which the patient arrived in the ED of the transferring hospital
Justification	To enable the identification of the time of arrival in the ED
Format	4 digit
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	hh:mm
DD Comments	Time is recorded using the 24 hour clock. If the patient is transferred several times, this should be the hospital where the patient first presented with a hip fracture. If the presenting hospital has no ED or the patient wasn't admitted through ED, state the time presenting to the transferring hospital with a hip fracture. If the hip fracture occurred as an in-patient, record the time the fracture was diagnosed. Note: 0000 indicates that the patient did not present through the ED, 9998 indicates that patient was not transferred (i.e. not relevant), and 9999 indicates that time was not known. To be used in the calculation of total LOS in the health system for the care episode.

Variable Number	2.06
Variable	**ED / other ward arrival date (operating hospital)**
Variable Name	arrdate
Definition	Date on which the patient arrived in the ED / other ward of the operating hospital
Justification	To enable calculation of age at presentation, time spent in ED, time to surgery and LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	If the patient was not admitted through the ED but was transferred from another hospital and admitted directly to a ward of the operating hospital, state the date admitted to the ward of the operating hospital. If the patient was admitted via the ED of the operating hospital, information on the date and time that the patient left the ED of the operating hospital will be recorded. The Australian National Emergency Access Target (NEAT) aims that by 2015, 90% of patients will leave the ED within 4 hours – either by discharge, being admitted to hospital or through transfer to another hospital for treatment (http://www.ecinsw.com.au/node/128). For New Zealand patients are expected to be discharged or admitted to hospital within 6 hours.

Variable Number	2.07
Variable	**ED / other ward arrival time (operating hospital)**
Variable Name	arrtime
Definition	Time at which the patient arrived at the ED / other ward of the operating hospital
Justification	To enable calculation of time spent in ED, time to surgery and LOS
Format	5 digit
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	hh:mm
DD Comments	Time is recorded using the 24 hour clock. If the patient was not admitted through the ED but was transferred from another hospital and admitted directly to a ward of the operating hospital, state the time admitted to the ward of the operating hospital. Note: 9999= time not known. If the patient was admitted via the ED of the operating hospital, information on the date and time that the patient left the ED of the operating hospital will be recorded

---

Variable Number	2.08
Variable	**ED departure date (operating hospital)**
Variable Name	depdate
Definition	Date on which the patient departed from the ED of the operating hospital
Justification	To enable calculation of time spent in ED, time to surgery and LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	Note: 01011900 indicates that the patient did not present through the ED. If the patient was admitted via the ED of the operating hospital, information on the date and time that the patient left the ED of the operating hospital will be recorded

---

Variable Number	2.09
Variable	**ED departure time (operating hospital)**
Variable Name	deptime
Definition	Time at which the patient departed from the ED of the operating hospital
Justification	To enable calculation of time spent in ED, time to surgery and LOS
Format	4 digit
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	hh:mm
DD Comments	Time is recorded using the 24 hour clock. Note: 9999= time not known. If the patient was admitted via the ED of the operating hospital, information on the date and time that the patient left the ED of the operating hospital will be recorded.

Variable Number	2.10
Variable	**In-patient fracture date**
Variable Name	admdateop
Definition	Date on which the admitted patient commences the episode of care at the operating hospital with radiological-confirmed diagnosis of hip fracture
Justification	To enable the identification of the date of hip fracture occurring as an in-patient and calculation of time to surgery and LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	Note: 01011900 = date not known Fractures sustained while on leave from an existing hospital admission are not classified as inpatient fractures. They are recorded as a new event and date and time of presentation are recorded at 2.06 and 2.07.

Variable Number	2.11
Variable	**In-patient fracture time**
Variable Name	admtimeop
Definition	24-hour time at which the admitted patient commences the episode of care at the operating hospital with radiological-confirmed diagnosis of hip fracture
Justification	To enable the identification of the time of hip fracture occurring as an in-patient and calculation of time to surgery and LOS
Format	4 digit
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	hh:mm
DD Comments	Time is recorded using the 24 hour clock. Note: 9999 = time not known

---

Variable Number	2.12
Variable	**Pain assessment**
Variable Name	painassess
Definition	Did the patient have a documented assessment of pain within 30 minutes of presentation to the emergency department
Justification	Acute pain associated with the hip fracture can have adverse effects on outcome. Hip Fracture Care Clinical Care Standard Indicator 2b.
Format	1 digit
Status	Core
Coding Source	
Coding Frame	1 Documented assessment of pain within 30 minutes of ED presentation 2 Documented assessment of pain greater than 30 minutes of ED presentation 3 Pain assessment not documented or not done 9 Not known
DD Comments	A pain assessment is any qualitative or quantitative assessment of pain recorded in the notes. A standardised pain assessment system should be used that specifically addresses the needs of patients with cognitive impairment and those unable to communicate pain. Time to pain assessment in the ED to be identified from clinical notes. Time is calculated from date and time of presentation to the emergency department of the first hospital.

Variable Number	2.13
Variable	**Pain management**
Variable Name	painmanage
Definition	Did the patient receive analgesia within 30 minutes of presentation to the emergency department?
Justification	Acute pain associated with the hip fracture can have adverse effects on outcome. Hip Fracture Care Clinical Care Standard Indicator 2b.
Format	1 digit
Status	Core
Coding Source	
Coding Frame	1 Analgesia given within 30 minutes of ED presentation 2 Analgesia given more than 30 minutes after ED presentation 3 Analgesia provided by paramedics 4 Analgesia not required 9 Not known
DD Comments	Time to analgesia in the ED to be identified from clinical notes. Time is calculated from date and time of presentation to the emergency department of the first hospital.

Variable Number	2.14
Variable	**Ward type**
Variable Name	ward
Definition	What type of ward was the patient admitted to from ED?
Justification	To enable the identification of the ward where the patient commenced their episode of care
Format	1 digit
Status	Core
Coding Source	
Coding Frame	1 Hip fracture unit/Orthopaedic ward/ preferred ward 2 Outlying ward 3 HDU / ICU / CCU 9 Other/ not known
DD Comments	HDU refers to High Dependency Unit. ICU refers to Intensive Care Unit. CCU refers to Coronary Care Unit. An outlying ward refers to a ward not clinically appropriate to meet the patient's current needs.

Section 3	Assessment

Variable Number	3.01
Variable	**Pre-admission walking ability**
Variable Name	walk
Definition	What was the patient's walking ability pre-admission?
Justification	To enable the identification of the mobility status pre-admission
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Usually walks without walking aids 2 Usually walks with either a stick or crutch 3 Usually walks with two aids or frame (with or without assistance of a person) 4 Usually uses a wheelchair / bed bound 9 Not known
DD Comments	If a person has different levels of mobility on different surfaces then record the level of most assistance. For example, inside their residence a person usually walks without a walking aid but when outside the residence the person usually walks with a frame, then the level of mobility recorded is option 3.

Variable Number	3.02
Variable	**Pre-operative cognitive assessment**
Variable Name	cogassess
Definition	Following admission to hospital, cognitive status is assessed prior to surgery using a validated tool and recorded in the medical record
Justification	Hip fracture patients are at high risk of having an existing cognitive impairment or developing delirium. Cognitive impairment and delirium in these patients is associated with increased morbidity and mortality, and a decrease in rehabilitation potential and return to pre-fracture functioning. Care at Presentation Hip Fracture Care Clinical Care Standard Indicator 1b.
Format	1 digit
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Not assessed 2 Assessed and normal 3 Assessed and abnormal or impaired 9 Not known
DD Comments	Cognitive assessment requires the use of a validated tool. Some validated tools for assessing cognitive function include: • Abbreviated Mental Test Score (AMTS) (Hodkinson 1972) • Standardised Mini-Mental State Examination (SMMSE) (Molloy & Standish 1997) • Modified Mini Mental State Exam (3MS) (Teng & Chui 1987) • General Practitioner's Assessment of Cognition (GPCOG) (Brodaty et al. 2002) • The 4AT (Bellelli et al. 2014) • Other tools, such as the Rowland Universal Dementia Assessment Scale (RUDAS) (Storey et al. 2004) and the Kimberly Indigenous Cognitive Assessment (KICA) (LoGiudice et al. 2006), may be more appropriate for some people from culturally and linguistically diverse groups

---

Variable Number	3.05
Variable	**Pre-admission cognitive status**
Variable Name	cogstat
Definition	What was the cognitive status of the patient prior to admission?
Justification	To enable the identification of the cognitive status of the patient prior to admission.
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	1 Normal cognition 2 Impaired cognition or known dementia 9 Not known
DD Comments	Normal cognition refers to 'no history of cognitive impairment or dementia'. Impaired cognition or known dementia refers to a 'loss of cognitive ability and/or a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities' (Alzheimer's Association).

Variable Number	3.06
Variable	**Bone protection medication at admission**
Variable Name	bonemed
Definition	Was the patient taking bone protection medication prior to sustaining the hip fracture?
Justification	Ability to monitor use of bone protection medication prior to hip fracture
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No bone protection medication 1 Yes - Calcium and/or vitamin D only 2 Yes - Bisphosphonates, denosumab or teriparitide (with or without calcium and/or vitamin D) 9 Not known
DD Comments	Calcium or vitamin D includes Calcitriol, calcium and vitamin D or Alpha-calcidol (or one alpha). Bisphosphonates includes: Etidronate, Alendronate, Risedronate, Ibandronate, Zoledronate, Pamidronate.

Variable Number	3.07
Variable	**Pre-operative medical assessment**
Variable Name	passess
Definition	Who conducted the pre-operative medical assessment apart from anaesthetic and orthopaedic review?
Justification	To determine level of pre-operative medical assessment. Hip Fracture Care Clinical Care Standard Indicator 3a.
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No assessment conducted 1 Geriatrician / Geriatric Team 2 Physician / Physician Team 3 GP 4 Specialist nurse 9 Not known
DD Comments	The pre-operative assessment is conducted in addition to an anaesthetic review and orthopaedic assessment. If the pre-operative assessment is conducted by a number of assessment team members, select the highest numerical option in the coding frame drop down list eg. the highest numerical option to select is '1' geriatrician.

Variable Number	3.08
Variable	**Side of hip fracture**
Variable Name	side
Definition	What was the side of the patient's hip fracture?
Justification	To enable the identification of the side of the hip fracture
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	1 Left 2 Right
DD Comments	Key field: must be entered to create a patient record. If the patient has bilateral hip fractures, a separate record should be created for each fracture.

Variable Number	3.09
Variable	**Atypical fracture**
Variable Name	afracture
Definition	Was the type of the patient's hip fracture either pathological or atypical?
Justification	To enable the identification of fractures which are not consistent with the nature of the injury
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 Not a pathological or atypical fracture 1 Pathological fracture 2 Atypical fracture
DD Comments	A pathological fracture is considered to be a fracture that has occurred when a bone breaks in an area that has been weakened by another disease process (except osteoporosis), such as a tumour, infection or an inherited bone disorder. An atypical fracture is one where the radiologically observed fracture pattern is not consistent with the mechanism of injury described and is not thought to be attributable to a discrete underlying disease process

---

Variable Number	3.10
Variable	**Type of fracture**
Variable Name	ftype
Definition	What was the type of the patient's hip fracture?
Justification	To enable the identification of the type of hip fracture
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Intracapsular undisplaced/impacted displaced 2 Intracapsular displaced 3 Per/intertrochanteric 4 Subtrochanteric
DD Comments	Basal/basicervical fractures are to the classified as per/intertrochanteric

---

Variable Number	3.11
Variable	**Surgical repair**
Variable Name	surg
Definition	Did the patient undergo surgical repair of the hip fracture?
Justification	To enable quantification of percentage patients undergoing surgery
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	2 Yes No – surgical fixation not clinically indicated No – patient for palliation No – other reason
DD Comments	

Variable Number	3.12
Variable	**ASA grade**
Variable Name	asa
Definition	What is the ASA grade for the patient?
Justification	A marker of disease severity and operative risk and used for case-mix adjustment
Format	1 digit numeric
Status	Core
Coding Source	American Society of Anaesthesiologists
Coding Frame	1 Healthy individual with no systemic disease 2 Mild systemic disease not limiting activity 3 Severe systemic disease that limits activity but is not incapacitating 4 Incapacitating systemic disease which is constantly life threatening 5 Moribund not expected to survive 24 hours with or without surgery 9 Not known
DD Comments	ASA grade is used in case-mix adjustment for outcome at 30 and 120 days post-surgery

---

Variable Number	3.13
Variable	**Clinical Frailty Scale**
Variable Name	frailty
Definition	What was the patient's pre-injury frailty status?
Justification	To enable the identification of the patient's frailty status prior to their hip fracture as a person's level of frailty impacts outcomes.
Format	2 digit numeric
Status	Core
Coding Source	Rockwood Clinical Frailty Scale
Coding Frame	1 Very Fit 2 Well 3 Well, with treated comorbid disease 4 Vulnerable 5 Mildly frail 6 Moderately frail 7 Severely frail 8 Very severely frail 9 Terminally ill 99 Not known
DD Comments	**NOTE:** the Clinical Frailty Scale applies to the person's usual status prior to the hip fracture. Where the person has dementia or delirium the information will need to be provided by an informant who knows the person well. **Coding Frame Definitions** 1 **Very fit** - robust, active, energetic and well-motivated. Exercise regularly and are among the fittest for their age. 2 **Well** - without active disease symptoms but are less fit than category 1. Exercise occasionally. 3 **Well with treated comorbid disease** - disease symptoms are well controlled compared to category four. Not regularly active beyond routine walking. 4 **Vulnerable** - not dependent on others for daily help, but symptoms limit activities. Common complaint is being 'slowed up' or being tired during the day. 5 **Mildly frail** - more evident slowing, and need help in instrumental activities of daily living (e.g. heavy housework, medications, transportation, shopping, using the phone, managing finances, meal preparation). 6 **Moderately frail** - need help with both instrumental and non-instrumental activities of daily living. Includes mobility in bed, transferring on/off chairs, toilets and into/out of bed, walking, dressing, eating, toilet use, personal hygiene, bathing. 7 **Severely frail** - completely dependent on others for all activities of daily living for whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months). 8 **Very severely frail** - completely dependent on others for all activities of daily living, approaching the end of life. Typically, they could not recover even from a minor illness. 9 **Terminally ill** - approaching the end of life. Applies to people with a life expectancy <6 months who are not otherwise evidently frail.

Section 4	Treatment

Variable Number	4.01
Variable	**Date of surgery for hip fracture**
Variable Name	sdate
Definition	Date on which the surgery for the hip fracture takes place
Justification	To enable the identification of the date of primary surgery. Hip Fracture Care Clinical Care Standard Indicator 4a.
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	If there was no surgery, enter 00000000**.** Date not known is classified as: 01011900

Variable Number	4.02
Variable	**Time of surgery for hip fracture**
Variable Name	stime
Definition	24-hour time at which the surgery for the hip fracture commences. This time is taken from the start of the anaesthetic process.
Justification	To enable the identification of the start time of the primary surgery. Hip Fracture Care Clinical Care Standard Indicator 4a.
Format	4 digit
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	hh:mm
DD Comments	Time is recorded using the 24 hour clock The time of surgery for the hip fracture is taken from the start of the anaesthetic process. Unknown time is classified as: 9999.

Variable Number	4.03
Variable	**Surgery delay**
Variable Name	delay
Definition	What was the primary reason for the delay if the delay was greater than 48 hours from the time of arrival in the emergency department of the first hospital, or diagnosis of a fracture if the fracture occurred as an in-patient?
Justification	Ability to monitor time to surgery as a standard of care
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 No delay, surgery completed <48 hours 2 Delay due to patient deemed medically unfit 3 Delay due to issues with anticoagulation 4 Delay due to theatre availability 5 Delay due to surgeon availability 6 Delay due to delayed diagnosis of hip fracture 7 Other type of delay 9 Not known
DD Comments	Delay is calculated from the time of presentation in the emergency department of the first hospital. A person is considered medically unfit if he/she have acute health-related issues which need to be stabilised/optimised or reversed prior to proceeding with anaesthesia and a surgical procedure. If there is more than one delay to surgery, choose the reason for the first delay.

Variable Number	4.04
Variable	**Surgery delay other text**
Variable Name	delay_txt
Definition	What was the reason for the other delay, if the delay was greater than 48 hours from the time of arrival in the emergency department?
Justification	Ability to monitor time to surgery as a standard of care
Format	Character
Status	Core
Coding Source	
Coding Frame	
DD Comments	

Variable Number	4.05
Variable	**Type of anaesthesia**
Variable Name	anaesth
Definition	What type of anaesthesia for the hip fracture surgery?
Justification	Ability to monitor variation, post-operative complications and patient choice
Format	2 digit numeric
Status	Core
Coding Source	
Coding Frame	1 General anaesthesia 2 5 Spinal / regional anaesthesia 6 General and spinal/regional anaesthesia 97 Other 99 Not known
DD Comments	CSE=Combined Spinal/Epidural. Recorded in anaesthetic chart

---

Variable Number	4.06
Variable	**Analgesia - nerve block**
Variable Name	analges
Definition	Did the patient have a nerve block?
Justification	Monitoring against Guideline recommendation
Format	2 digit numeric
Status	Core
Coding Source	
Coding Frame	1 Nerve block administered before arriving in OT 2 Nerve block administered in OT 3 Both 4 Neither 99 Not known
DD Comments	

Variable Number	4.07
Variable	**Consultant surgeon present**
Variable Name	consult
Definition	Was the consultant surgeon operating or assisting with the operation?
Justification	Ability to monitor the impact of consultant surgeon presence on the quality and safety of patient outcome
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
DD Comments	To record yes, consultant must be scrubbed and operating. This variable can be found by checking if the consultant surgeon is recorded on the operation sheet

---

Variable Number	4.08
Variable	**Type of operation performed**
Variable Name	optype
Definition	What type of operation was performed for the hip fracture?
Justification	To enable the identification of the patient's type of hip fracture operation
Format	2 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Cannulated screws (e.g. multiple screws) 2 Sliding hip screw 3 Intramedullary nail short 4 Intramedullary nail long 5 Hemiarthroplasty stem cemented 6 Hemiarthroplasty stem uncemented 7 Total hip replacement stem cemented 8 Total hip replacement stem uncemented 97 Other 99 Not known
DD Comments	Intramedullary nail includes: Proximal femoral nail, Antegrade femoral nail, Proximal femoral nail antirotation (PFNA), and Gamma nail. For cemented versus uncemented procedures, this only includes whether the stem was cemented or not. This does not include whether or not the cup was cemented. Austin Moore prosthesis to be included in hemiarthroplasty – uncemented. Sliding hip screws include dynamic hip screws (DHS)

Variable Number	4.10
Variable	**Full weight bear**
Variable Name	wbear
Definition	What is the patient's immediate post-operative weight bearing status?
Justification	Ability to monitor variation in practice. Hip Fracture Care Clinical Care Standard Indicator 5b.
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	0 Unrestricted weight bearing 1 Restricted / non weight bearing 9 Not known
DD Comments	Unrestricted weight bearing refers to a patient who is able to mobilise with full use of the affected limb to weight bear as pain allows. Restricted weight bearing refers to a patient where there is a specific instruction that prevents the patient being allowed to fully utilise the leg irrespective of degree of pain. Restricted weight bearing includes terms such as partial weight bear, touch-weight bear and non-weight bear

Variable Number	4.11
Variable	**First day mobilisation**
Variable Name	mobil
Definition	Was the patient with a hip fracture provided with the opportunity to be mobilised on day one post hip fracture surgery?
Justification	Hip Fracture Care Clinical Care Standard Indicator 5a. Low mobility during hospitalisation is associated with death, and declining function in activities of daily living at discharge and at one month follow-up, which induces a risk of staying dependent in these activities (Pedersen et al. 2013).
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 Patient given opportunity to start mobilising day 1 post surgery 1 Patient not given opportunity to start mobilising day 1 post surgery 9 Not known
DD Comments	Day 1 post-surgery means the next calendar day following the day of the patient's primary surgery for hip fracture. Mobilised means the patient was sat out of bed and given the opportunity to start mobilising on day 1 post hip fracture surgery. Mobility may include getting in/out of bed, standing up from a chair, and/or walking. Patients who have been given the opportunity to mobilise but are determined by the clinical team to be too unwell to mobilise are included provided both the opportunity to mobilise and the clinical determination are documented in the medical record. Patients that have declined to mobilise are included provided both the opportunity to mobilise and the reason for declining are documented in the medical record. Pedersen MM, Bodilsen AC, Petersen J, Beyer N, Andersen O, Lawson-Smith L, et al. 2013. Twenty-four-hour mobility during acute hospitalization in older medical patients. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences 68(3):331-7.

Variable Number	4.12
Variable	**New pressure injuries of the skin**
Variable Name	Pulcers
Definition	Did the patient acquire a new pressure injury (Stage II or above) during their stay in hospital for the treatment of their hip fracture?
Justification	Hip Fracture Care Clinical Care Standard Indicator 5bc Pressure injuries of the skin are potentially preventable. They can affect a person's level of pain, quality of life, cost of care, and mortality.
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No 1 Yes 9 Not known
DD Comments	A pressure injury is an area of localised damage to the skin and underlying tissue caused by pressure, shear or friction forces, or a combination of these. Grading for pressure ulcers consists of 4 levels: Stage I pressure injury: non-blanchable erythema (intact skin with non-blanchable redness of a localised area usually over a bony prominence). Stage II pressure injury: partial thickness skin loss (Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, with slough). Stage III pressure injury: full thickness skin loss (Subcutaneous fat may be visible but bone, tendon, or muscle, are not fully exposed). Stage IV pressure injury: full thickness tissue loss (Full thickness tissue loss with exposed bone, tendon or muscle). The pressure injury classification is from the National Pressure Ulcer Advisory Panel (NPUAP) and European Pressure Ulcer Advisory Panel (EPUAP), Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. 2009, Washington DC: NPUAP

Variable Number	4.13
Variable	**Assessed by geriatric medicine**
Variable Name	gerimed
Definition	Was the patient assessed by geriatric medicine during the acute phase of the episode of care?
Justification	Ability to monitor quality of care. Hip Fracture Care Clinical Care Standard Indicator 3a.
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	0 No 1 Yes 8 No geriatric medicine service available 9 Not known
DD Comments	An assessment by geriatric medicine refers to an assessment by a geriatrician or a medical practitioner (Registrar) working under the supervision of a geriatrician. The acute phase (IHPA Admitted Hospital Care Types: Guide For Use 2015) is care in which the primary clinical purpose or treatment goal is to: • cure illness or provide definitive treatment of injury • perform surgery • relieve symptoms of illness or injury (excluding palliative care) • reduce severity of an illness or injury • protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function • perform diagnostic or therapeutic procedures

---

Variable Number	4.14
Variable	**Geriatric medicine assessment date**
Variable Name	gdate
Definition	Date on which an admitted patient was first assessed by geriatric medicine during the acute phase of their episode of care
Justification	To enable the identification of the date of geriatric assessment. Hip Fracture Care Clinical Care Standard Indicator 3a.
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	A geriatric assessment is considered to include an assessment by a geriatrician or a medical practitioner (Registrar) working under the supervision of a geriatrician. If no geriatric assessment was conducted enter: 0000000. Date not known is entered as: 99999999

Variable Number	4.15
Variable	**Specialist falls assessment**
Variable Name	fassess
Definition	Did the patient undergo a specialist falls assessment?
Justification	Ability to monitor secondary hip fracture prevention
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	0 No 1 Performed during admission 2 Awaits falls clinic assessment 3 Further intervention not appropriate 8 Not relevant, e.g. patient died 9 Not known
DD Comments	A specialist falls assessment is undertaken by a multidisciplinary team and includes a systematic assessment by a suitably trained person (i.e. geriatrician or a specialist assessment trained nurse), which must go over the following domains: (i) falls history (noting previous falls); (ii) cause of index fall (including medication review); (iii) risk factors for falling and injury (including fracture) and from this information formulate and document an individualised plan of action to prevent further falls. A specialist falls assessment is not a screening tool. Example 1: Patient admitted with a hip fracture and managed surgically. During the post-operative period in the acute ward, a specialist falls assessment was commenced with documented assessment of falls risk and medication review. In the medical record there was a documented referral to the specialist falls service to be actioned on discharge from acute care. Option 2 would be selected. Example 2: Patient admitted with a hip fracture and managed surgically. During the post-operative period in the acute ward, a specialist falls assessment was commenced with documented assessment of falls risk factors, falls history and cause of index fall. There was no other documentation of assessment or referral. Option 0 would be selected.

Variable Number	4.16
Variable	**Bone protection medication at discharge from acute hospital**
Variable Name	dbonemed1
Definition	What bone protection medication was the patient using at discharge from acute hospital?
Justification	Ability to monitor use of bone protection medication. Hip Fracture Care Clinical Care Standard Indicator 6a.
Format	1 digit numeric
Status	Code
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No bone protection medication 1 Yes - Calcium and/or vitamin D only 2 Yes - Bisphosphonates, denosumab or teriparatide (with or without calcium and/or vitamin D) 9 Not known
DD Comments	Calcium or vitamin D includes Calcitriol, calcium and vitamin D or Alpha-calcidol (or one alpha). Bisphosphonates includes: Etidronate, Alendronate, Risedronate, Ibandronate, Zoledronate, Pamidronate.

Variable Number	4.17
Variable	**Delirium assessment**
Variable Name	delassess
Definition	Did the patient have a documented assessment of delirium in the week following surgery for their hip fracture?
Justification	Identifying patients with delirium is the first step in taking action to providing high quality care. Early diagnosis and prompt treatment offers patients with delirium the best chance of recovery.
Format	1 digit
Status	Non-Core
Coding Source	
Coding Frame	1 Not assessed 2 Assessed and not identified 3 Assessed and identified 9 Not known
DD Comments	Assessment of delirium requires the use of a validated tool. There are a range of validated diagnostic tools for delirium and they include: • Confusion Assessment Method (CAM) (Inouye et al. 2014; Shi et al. 2013) • Confusion Assessment Method (CAM-ICU) (Ely et al. 2001) • 3D-CAM (Marcantonio et al. 2014). • The 4AT (Bellelli et al. 2014) If a person declines assessment record as not assessed. Delirium is defined as an acute change in mental status that is common among older patients in hospital (Clinical Epidemiology and Health Service Evaluation Unit 2006). It is characterised by a disturbance of consciousness, attention, cognition and perception that develops over a short period of time (usually hours to a few days) (National Institute for Health and Clinical Excellence 2010; Inouye 2014). Patients with delirium may be agitated and restless (hyperactive delirium), quiet and withdrawn (hypoactive delirium), or move between these two subtypes (mixed delirium) (Clinical Epidemiology and Health Service Evaluation Unit 2006; National Institute for Health and Clinical Excellence 2010).

Variable Number	4.18
Variable	**Clinical malnutrition assessment**
Variable Name	malnutrition
Definition	Did the patient undergo clinical assessment of their protein/energy nutrition status during the acute phase of the episode of care?
Justification	Hip fracture patients are at high risk of malnutrition. Malnutrition in these patients is associated with increased morbidity and mortality, and a decrease in return to pre-fracture functioning.
Format	1 digit
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 Not done 1 Malnourished 2 Not malnourished 9 Not known
DD Comments	Clinical assessment of a person's nutritional status is encouraged during the acute phase. Sites should use tools that are validated for such purposes, and are advised to discuss with their Dietitians how best to record the results using this variable's options. If the nutritional assessment is performed more than once, please record the first assessment after admission that uses a validated tool.

Variable Number	4.19
Variable	**First day walking**
Variable Name	mobil2
Definition	Did the patient get out of bed and walk on day one post hip fracture surgery?
Justification	Hip Fracture Care Clinical Care Standard Indicator 5a. Low mobility during hospitalisation is associated with death, and declining function in activities of daily living at discharge and at one month follow-up, which induces a risk of staying dependent in these activities (Pedersen et al. 2013).
Format	1 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No 1 Yes 9 Not known
DD Comments	Day 1 post-surgery means the next calendar day following the day of the patient's primary surgery for hip fracture. This data item is recording whether the patient actually stood and stepped or walked by day 1 post-surgery. Mobilised means the patient managed to stand and step transfer out of bed onto a chair/commode and or walk. This does not include only sitting over the edge of the bed or standing up from the bed without stepping/walking. Pedersen MM, Bodilsen AC, Petersen J, Beyer N, Andersen O, Lawson-Smith L, et al. 2013. Twenty-four-hour mobility during acute hospitalization in older medical patients. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences 68(3):331-7.

Section 5	Discharge

Variable Number	5.01
Variable	**Discharge date from acute ward**
Variable Name	wdisch
Definition	Date on which the patient was discharged from an acute ward during their episode of care
Justification	To enable the identification of the date of discharge from an acute ward so as to calculate LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	The discharge date refers to the patient physically leaving the acute ward. Record the date the patient was physically discharged from the acute orthopaedic stay. Date not known is entered as: 01011900

Variable Number	5.02
Variable	**Discharge destination from acute orthopaedic episode**
Variable Name	wdest
Definition	What is the discharge (geographical) destination of the patient from the acute/ orthopaedic ward?
Justification	To assess patient outcome
Format	2 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Private residence (including unit in retirement village) 2 Residential aged care facility 3 Rehabilitation unit public 4 Rehabilitation unit private 5 Other hospital / ward / specialty 6 Deceased 7 Short term care in residential care facility (New Zealand only) 97 Other 99 Not known
DD Comments	Record the patient's discharge destination at discharge from the acute orthopaedic stay. If the patient is discharged to live with a relative or in a community group home or boarding house code 'private residence'. Private rehabilitation units will not be applicable in New Zealand. Residential aged care refers to a supported facility that provides accommodation and care for a person on a long-term basis. This may include multi-purpose services in Australia and private hospitals or rest homes in New Zealand. Short-term care in residential care facility may be relevant if the patient is non-weight bearing, and is used in New Zealand and, to a lesser degree, in Australia. For example, in New Zealand, some District Health Boards have programmes that fund patients who are non-weight bearing to be cared for in a residential care facility. When they are approved by the Orthopaedic Department to fully weight bear they are either admitted to Older Peoples Health for rehabilitation or discharged home.

Variable Number	5.03
Variable	**Discharge from hospital date**
Variable Name	hdisch
Definition	Date on which an admitted patient was discharged from the operating hospital following their episode of care
Justification	To enable the identification of the date of discharge from hospital and calculation of LOS
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	Date not known is entered as: 01011900 Discharge from hospital date may be the same as discharge from acute ward if patient discharged from hospital system on discharge from acute ward date.

Variable Number	5.04
Variable	**Length of stay (operating hospital)**
Variable Name	olos
Definition	The length of stay of a patient at the operating hospital, excluding leave days or days before fracture if occurred in hospital, measured in days
Justification	To enable the identification of the length of stay at the operating hospital
Format	3 digit numeric
Status	Non-core (created centrally)
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	NNN
DD Comments	Formula: Length of Stay (LOS) = Separation date - Admission date - Total leave days. The calculation is inclusive of admission and separation dates. LOS will be calculated automatically from the operating hospital separation and admission dates. If the hip fracture occurred as an in-patient then the length of stay should be from time hip fracture was diagnosed.

Variable Number	5.05
Variable	**Length of stay (health system)**
Variable Name	TLOS
Definition	The length of stay of a patient from admission/diagnosis of a hip fracture to final date of discharge from an inpatient facility (public or private), excluding leave days, measured in days
Justification	To enable the identification of the total length of stay in the health system
Format	4 digit, unit of measure (day)
Status	Non-core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	NNNN
DD Comments	Formula: Length of stay (LOS) = Separation date - Admission date - Total leave days. The calculation is inclusive of admission and separation dates. LOS will be calculated automatically from the ED arrival date of the transferring hospital (or the ED arrival date of the operating hospital, if no transfer occurred) and the discharge from hospital date. If the final date of discharge from the hospital system is known, this date should be used. It should be noted that the total length of stay in the hospital system will be difficult to calculate in some jurisdictions, due to differences in treatment settings for rehabilitation-based care.

Variable Number	5.06
Variable	**Discharge place of residence**
Variable Name	dresidence
Definition	What is the usual place of residence of the person following discharge from the whole hospital system?
Justification	Type of accommodation before and after admission are collected to compare where the patient has come from (what was their usual accommodation) and where they are going to (what will become their usual accommodation). Comparison of accommodation pre and post admission is an indicator of patient outcome.
Format	1 digit numeric
Status	Core
Coding Source	Adapted from Australasian Rehabilitation Outcomes Centre Inpatient Dataset, Version 3.0; NSW SNAP Data Collection, Version 4.0
Coding Frame	1 Private residence (including unit in retirement village) 2 Residential aged care / rest home 3 Deceased 7 Other 9 Not known
DD Comments	Record the patient's accommodation type at discharge from the whole hospital system. If the patient lives with a relative or in a community group home or boarding house code 'private residence'. Residential aged care refers to a supported facility that provides accommodation and care for a person on a long-term basis. This may include multi-purpose services in Australia and private hospitals or rest homes in New Zealand.

Section 7	120 day follow-up*

*120-day follow up is undertaken by the operating hospital

Variable Number	7.01
Variable	**120 day follow-up date**
Variable Name	fdate2
Definition	Date on which the 120 day follow-up was completed post the initial hip fracture surgery
Justification	To monitor patient outcomes post-surgery
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	Date not known is entered as: 01011900

Variable Number	7.02
Variable	**Survival at 120 days post-surgery**
Variable Name	fsurvive2
Definition	Is the patient alive at 120 days post-surgery
Justification	To monitor patient outcomes post-surgery
Format	1 digit numeric
Status	Core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
DD Comments	

Variable Number	7.03
Variable	**Date health system discharge at 120 day follow-up**
Variable Name	date120
Definition	What date was the patient discharged from the hospital system?
Justification	To enable the identification of the total length of stay in the health system
Format	8 digit date, date in DDMMYYYY
Status	Core
Coding Source	National Health Data Dictionary, Version 15
Coding Frame	DD/MM/YYYY
DD Comments	If the patient is still in hospital, 00000000 is entered. Date not known is entered as: 1011900

Variable Number	7.04
Variable	**Place of residence at 120 day follow-up**
Variable Name	fresidence2
Definition	What is the place of residence of the person at 120 days post-surgery?
Justification	To monitor patient outcomes post-surgery. Hip Fracture Care Clinical Care Standard Indicator 7b.
Format	2 digit numeric
Status	Core
Coding Source	Adapted from the Australasian Rehabilitation Outcomes Centre Inpatient Dataset, Version 3.0; NSW SNAP Data Collection, Version 4.0
Coding Frame	1 Private residence (including unit in retirement village) 2 Residential aged care / rest home 3 Rehabilitation unit public 4 Rehabilitation unit private 5 Other hospital / ward / specialty 6 Deceased 7 Short term care in residential care facility (New Zealand only) 97 Other 99 Not known
DD Comments	Record the patient's discharge destination at 120 days post-surgery. If the patient is discharged to live with a relative or in a community group home or boarding house code 'private residence'. Private rehabilitation units will not be applicable in New Zealand. Residential aged care refers to a supported facility that provides accommodation and care for a person on a long-term basis. This may include multi-purpose services in Australia and private hospitals or rest homes in New Zealand. Short-term care in residential care facility may be relevant if the patient is non-weight bearing and is used in New Zealand and to a lesser degree in Australia. For example, in New Zealand, some District Health Boards have programmes that fund patients who are non-weight bearing to be cared for in a residential care facility. When they are approved by the Orthopaedic Department to fully weight bear they are either admitted to Older Peoples Health for rehabilitation or discharged home.

Variable Number	7.06
Variable	**Post-admission walking ability at 120 day follow-up**
Variable Name	fwalk2
Definition	What was the patient's walking ability at 120 days post-surgery?
Justification	To monitor patient mobility status post-discharge. Hip Fracture Care Clinical Care Standard Indicator 5d.
Format	2 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	1 Usually walks without walking aids 2 Usually walks with either a stick or crutch 3 Usually walks with two aids or frame (with or without assistance of a person) 4 Usually uses a wheelchair / bed bound 8 Not relevant 9 Not known
DD Comments	Usually walks with two aids or frame includes with or without assistance of a person If a person has different levels of mobility on different surfaces then record the level of most assistance. For example, inside their residence a person usually walks with no walking aid but when outside the residence the person usually walks with a frame, then the level of mobility recorded is option 3.

Variable Number	7.07
Variable	**Bone protection medication at 120 day follow-up**
Variable Name	fbonemed2
Definition	What bone protection medication was the patient using at 120 days post-surgery?
Justification	Ability to monitor use of bone protection medication
Format	1 digit numeric
Status	Code
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No bone protection medication 5 Yes - Calcium and/or vitamin D only 6 Yes - Bisphosphonates, denosumab or teriparatide (with or without calcium and/or vitamin D) 9 Not known
DD Comments	Calcium or vitamin D includes Calcitriol, calcium and vitamin D or Alpha-calcidol (or one alpha). Bisphosphonates includes: Etidronate, Alendronate, Risedronate, Ibandronate, Zoledronate, Pamidronate.

Variable Number	7.08
Variable	**Re-operation within 120 day follow-up**
Variable Name	fop2
Definition	What kind of re-operation has been required (if any) for the patient within 120 days post-surgery?
Justification	To monitor patient outcomes post-surgery
Format	2 digit numeric
Status	Core
Coding Source	Adapted from the UK National Hip Fracture Database
Coding Frame	0 No reoperation 1 Reduction of dislocated prosthesis 2 Washout or debridement 3 Implant removal 4 Revision of internal fixation 5 Conversion to hemiarthroplasty 6 Conversion to total hip replacement 7 Excision arthroplasty 9 Revision arthroplasty 99 Not known
DD Comments	Option 2 washout and debridement includes liner change. Note: record the most significant procedure only.

Variable Number	7.09
Variable	**Preliminary date of death**
Variable Name	predod
Definition	What was the date of death of the hip fracture patient?
Justification	To monitor patient outcomes and enable reporting of mortality after hip fracture Hip Fracture Care Clinical Care Standard Indicator 8b.
Format	8 digit, date in DDMMYYYY
Status	Optional, non-core
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 646025). Preliminary Australian date of death obtained from hospital records and/or during 120 day follow-up.
Coding Frame	DD/MM/YYYY
DD Comments	Date not known is recorded as: 01011900 Date of death may be collected either at discharge or during 120-day follow-up. New Zealand date of death may be obtained from the New Zealand Ministry of Health.

Variable Number	7.10
Variable	**Final date of death**
Variable Name	findod
Definition	What was the date of death of the hip fracture patient?
Justification	To monitor patient outcomes and enable reporting of mortality after hip fracture Hip Fracture Care Clinical Care Standard Indicator 8b.
Format	8 digit, date in DDMMYYYY
Status	Non-core (created centrally)
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 646025). Final Australian date of death obtained from the National Death Index. New Zealand date of death obtained from the New Zealand Ministry of Health.
Coding Frame	DD/MM/YYYY
DD Comments	Date not known is recorded as: 01011900 Final Australian date of death will be obtained from the National Death Index and final New Zealand date of death will be obtained from the New Zealand Ministry of Health.

Variable Number	7.11
Variable	**Underlying cause of death**
Variable Name	undcod
Definition	What was the underlying cause of death of the hip fracture patient?
Justification	To enable identification of the underlying cause of death of the hip fracture patient
Format	ANN {.N [N]}
Status	Non-core (created centrally)
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 307862). Australian underlying cause of death obtained from the National Death Index. New Zealand underlying cause of death obtained from the New Zealand Ministry of Health.
Coding Frame	ICD-10
DD Comments	The disease or injury which initiated the train of morbid events leading directly to a person's death or the circumstances of the incident or violence which produced the fatal injury.

Variable Number	7.12
Variable	**Other causes of death**
Variable Name	othcod
Definition	What was the underlying cause of death of the hip fracture patient?
Justification	To enable identification of the underlying cause of death of the hip fracture patient
Format	ANN {.N [N]}
Status	Non-core (created centrally)
Coding Source	National Health Data Dictionary, Version 15 (METeOR identifier 307862). Australian other cause(s) of death obtained from the National Death Index. New Zealand other cause(s) of death obtained from the New Zealand Ministry of Health.
Coding Frame	ICD-10
DD Comments	The disease or injury which initiated the train of morbid events leading directly to a person's death or the circumstances of the incident or violence which produced the fatal injury.

EQ5D5L questionnaire

UK (English) © 2009 EuroQol Group EQ-5D™ is a trade mark of the EuroQol Group

Under each heading, please tick the ONE box that best describes your health TODAY.

MOBILITY

I have no problems in walking about ☐
I have slight problems in walking about ☐
I have moderate problems in walking about ☐
I have severe problems in walking about ☐
I am unable to walk about ☐

SELF-CARE

I have no problems washing or dressing myself ☐
I have slight problems washing or dressing myself ☐
I have moderate problems washing or dressing myself ☐
I have severe problems washing or dressing myself ☐
I am unable to wash or dress myself ☐

USUAL ACTIVITIES *(e.g. work, study, housework, family or leisure activities)*

I have no problems doing my usual activities ☐
I have slight problems doing my usual activities ☐
I have moderate problems doing my usual activities ☐
I have severe problems doing my usual activities ☐
I am unable to do my usual activities ☐

PAIN / DISCOMFORT

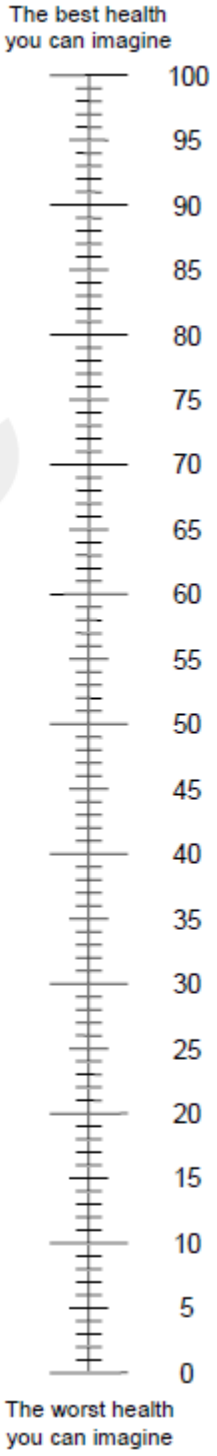
I have no pain or discomfort ☐
I have slight pain or discomfort ☐
I have moderate pain or discomfort ☐
I have severe pain or discomfort ☐
I have extreme pain or discomfort ☐

ANXIETY / DEPRESSION

I am not anxious or depressed ☐
I am slightly anxious or depressed ☐
I am moderately anxious or depressed ☐
I am severely anxious or depressed ☐
I am extremely anxious or depressed ☐

- We would like to know how good or bad your health is TODAY.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.
  0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your health is TODAY.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY = ☐



ANZHFR Facility Level Audit

Hospitals are identified using the variable 2.01: Establishment identifier of operating hospital

Section 8	**Hospital information**

Variable #	8.01
Variable	**Major trauma centre**
Variable Name	maj_trauma_centre
Definition	Is the hospital a designated major trauma centre?
Justification	To identify the Level 1 trauma centres
Format	Numerical, N
Status	non core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	Investigators can determine this using the Australasian trauma verification program manual. The manual is available at: https://www.surgeons.org/media/21043200/march-2016-trauma-verification-manual.pdf

---

Variable #	8.02
Variable	**Hip fractures**
Variable Name	est_numb_hipfrac
Definition	Estimated number of hip fractures in the calendar year just ended January to December inclusive
Justification	To estimate the number of hip fractures being treated at the hospital
Format	Numerical, NNNN
Status	core
Coding Source	
Coding Frame	1 0-50 2 51-100 3 101-150 4 151-200 5 201-300 6 301-400 7 401+ 9 Not known
FLA Comments	Record the estimated number of fractures treated annually.

Section 9	Model of care

Variable #	9.01
Variable	**Orthogeriatric service**
Variable Name	ogs
Definition	Was there a formal orthogeriatric service in place?
Justification	To determine if there was an orthogeriatric service available for hip fracture patients at the hospital
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	Orthogeriatric care involves a shared care arrangement of hip fracture patients between the specialties of orthopaedics and geriatric medicine. The geriatrician is involved in the pre-operative optimisation of the patient in preparation for surgery and then takes a lead in the post-operative medical care and coordinates the discharge planning process. Implicit in this role are many of the aspects of basic care including nutrition, hydration, pressure care, bowel and bladder management, and monitoring of cognition (ANZHFR Guideline 2014, p.68).

Variable #	9.02
Variable	**Model of care**
Variable Name	moc
Definition	Select the model of care that best describes the service provided for care of older hip fracture patients in your hospital.
Justification	To determine the model of care used to treat hip fracture patients. Hip Fracture Care Clinical Care Standard Indicator 3a.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	1 Orthopaedics and Geriatric Medicine shared care 2 Orthogeriatric Liaison Service where Geriatric Medicine provides daily review during working week 3 Medical Liaison Service where Physician or GP provide daily review during working week 4 Orthogeriatric Liaison Service where Geriatric Medicine provides intermittent review once or more per week 5 Medical Liaison Service where Physician or GP provides intermittent review once or more per week 6 A geriatric service provided on referral 7 A Medical Service provided on referral 8 No formal service 9 Other 99 Not known
FLA Comments	Documented local arrangements for the management of hip fracture patients according to an orthogeriatric (or alternative physician or medical practitioner) model of care. The documentation should be an agreement showing acceptance of a "shared care" model for all hip fracture patients, and signed by the heads of both Geriatric Medicine and Orthopaedic Surgery. The key features of an orthogeriatric model of care are: • regular medical assessment including medication review; • managing patient comorbidities; • optimisation for surgery; • early identification of each patient's goals and care co-ordination. If appropriate and clinically indicated, provision of multidisciplinary rehabilitation aimed at increasing mobility and independence, and to facilitate a return to pre-fracture residence and support long-term wellbeing; • early identification of most appropriate service to deliver rehabilitation, if indicated; • ongoing orthogeriatric and multidisciplinary review including reassessment of cognition after surgery, and discharge planning liaison with primary care, including falls prevention and secondary fracture prevention.

Section 10	Protocols and processes

Variable #	10.01
Variable	**Imaging protocol**
Variable Name	ct_mri
Definition	For a suspected hip fracture, does your hospital have a protocol or pathway for access to CT / MRI for inconclusive plain imaging?
Justification	To determine if the hospital has a protocol for the imaging of patients suspected of having a hip fracture
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	CT is Computed Tomography MRI is Magnetic Resonance Imaging Offer magnetic resonance imaging (MRI) if hip fracture is suspected despite negative anteroposterior pelvis and lateral hip X-rays. If MRI is not available within 24 hours or is contraindicated, consider computed tomography (CT).

Variable #	10.02
Variable	**Hip fracture pathway**
Variable Name	hipfrac_path
Definition	The hospital has a hip fracture pathway that is used for the management of patients admitted with a hip fracture.
Justification	To determine if the hospital has a hip fracture pathway. Hip Fracture Care Clinical Care Standard Indicator 1a.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes - ED only 2 Yes - whole acute journey 9 Not known
FLA Comments	Evidence of local arrangements for the management of patients with hip fracture in the emergency department. Documented local arrangements for the management of patients with hip fracture in the emergency department that address timely assessment and management of the patient's medical conditions, including but not limited to: diagnostic imaging; pain control; cognitive assessment. The documentation may be in the form of local protocols and/or a clinical pathway.

Variable #	10.03
Variable	**Venous thromboembolism protocol**
Variable Name	vte
Definition	Does your hospital have a VTE protocol?
Justification	To determine if the hospital has a VTE protocol for hip fracture patients
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	VTE refers to venous thrombo-embolism

Variable #	10.04
Variable	**Pain protocol**
Variable Name	pain_path
Definition	Does your hospital have a protocol or pathway for the management of pain in hip fracture patients?
Justification	To determine if the hospital has a pain protocol for hip fracture patients. Hip Fracture Care Clinical Care Standard Indicator 2a.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes - ED only 2 Yes - whole acute journey 9 Not Known
FLA Comments	Documented local arrangements include a written clinical protocol to ensure patients with a hip fracture receive prompt and effective pain management. The protocol should take into account the hierarchy of pain management medicine for managing pain associated with hip fracture and aim to minimise the use of opioid medicine. Pain should be assessed immediately upon presentation at hospital and within 30 minutes of administering initial analgesia and hourly until settled on the ward and regularly as part of routine nursing observations throughout admission. Protocols should include the use of a standardised pain assessment system, which specifically addresses the assessment of pain for patients with cognitive impairment and those unable to communicate pain, particularly with regard to minimising the use of opioid medicine in this group.

Variable #	10.05
Variable	**Planned theatre list**
Variable Name	oplist_planned
Definition	Does your hospital have a planned emergency list / planned orthopaedic trauma list for hip fracture patients?
Justification	To determine if the hospital has access to an appropriately skilled operating team for patients admitted with a hip fracture.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	A planned emergency list or planned orthopaedic trauma list provides access to an appropriately skilled team to undertake the surgical procedure.

Variable #	10.06
Variable	**Anaesthesia**
Variable Name	anaes_choice
Definition	Are hip fracture patients routinely offered a choice of anaesthesia?
Justification	To determine if the hospital routinely offers a choice of anaesthesia for hip fracture patients
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 Never 1 Rarely 2 Frequently 3 Always 9 Not known
FLA Comments	Patients should be involved in the decision as of the approach to anaesthesia taken. They should be made aware of the potential risks and benefits of both general and regional anaesthesia so as to be able to make an informed decision about their care.

Variable #	10.07
Variable	**Nerve block for pain pre-surgery**
Variable Name	nvblock_preop
Definition	Are hip fracture patients offered local nerve blocks as part of pain management prior to surgery?
Justification	To determine if the hospital offers hip fracture patients local nerve blocks as part of pain management pre-surgery
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 Never 1 Rarely 2 Frequently 3 Always 9 Not known
FLA Comments	Nerve blocks offer an alternative to systemic analgesia and have the potential to reduce the dose requirements of potent systemic analgesic agents, which may reduce unwanted side effects such as sedation, respiratory complications and delirium.

Variable #	10.08
Variable	**Nerve block for pain post-surgery**
Variable Name	nvblock_postop
Definition	Are local nerve blocks used at the time of surgery to help with postoperative pain?
Justification	To determine if the hospital offers hip fracture patients local nerve blocks as part of pain management post-surgery
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 Never 1 Rarely 2 Frequently 3 Always 9 Not known
FLA Comments	Nerve blocks offer an alternative to systemic analgesia and have the potential to reduce the dose requirements of potent systemic analgesic agents, which may reduce unwanted side effects such as sedation, respiratory complications and delirium.

Variable #	10.09
Variable	**Therapy access**
Variable Name	therapy_we
Definition	Does your hospital offer hip fracture patients routine access to therapy services at weekends?
Justification	To determine if the hospital offers hip fracture patients therapy services at weekends
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes - Physiotherapy only 2 Yes – other 9 Not known
FLA Comments	Early mobilisation is also associated with short term gains related to a reduction in postoperative complications. Unless medically or surgically contraindicated, mobilisation should start the day after surgery. Patients should be offered an opportunity to mobilise at least once a day with regular physiotherapy review ensured.

Variable #	10.10
Variable	**Delirium protocol**
Variable Name	del_path
Definition	Does your hospital have a protocol or pathway for the implementation of interventions to prevent delirium in hip fracture patients?
Justification	To determine if the hospital has a protocol in place to offer interventions to prevent delirium to patients with a hip fracture. Delirium Clinical Care Standard Indicator 3a.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes , interventions specific to the individual's needs are offered 2 Yes, interventions not specific to the individual's needs are offered 9 Not Known
FLA Comments	Documented evidence of local arrangements for implementing interventions for patients identified as being at risk of developing delirium: medication review; correction of dehydration/ malnutrition/constipation; mobility activities; oxygen therapy; pain assessment and management; regular reorientation and reassurance; activities for stimulating cognition; non-drug measures to help promote sleep; assistance for patients who usually wear hearing or visual aids. These interventions should be tailored to individuals depending on the individual's clinical risk factors and the setting.3,4 The local arrangements should provide for tailored interventions. They must include a process for documenting the interventions and discussing with the patient and/or their carer the interventions being put in place. They must also include encouraging carers to be involved (e.g. providing orientation and reassurance to the patient).

Section 11	Beyond the Acute Hospital Stay

Variable #	11.01
Variable	**Information on treatment and care**
Variable Name	hipfrac_written
Definition	Does your hospital routinely provide patients and/or family and carers with written information about treatment and care for a hip fracture?
Justification	To determine if the hospital routinely provides hip fracture patients and/or their family/carers with written information about their hip fracture treatment and care
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	11.02
Variable	**Inpatient rehabilitation**
Variable Name	inpt_rehab
Definition	Access to in-patient rehabilitation
Justification	To determine if the hospital provides on- or off-site hip fracture rehabilitation for patients unable to meet the criteria for early supported discharge
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	1 Onsite 2 Offsite 3 Both 4 No inpatient rehabilitation available 9 Not known
FLA Comments	Consider in-patient rehabilitation for those in whom further improvement with a structured multidisciplinary programme is anticipated.

Variable #	11.03
Variable	**Home-based rehabilitation**
Variable Name	homebased_serv
Definition	Does your hospital have access to an early supported home-based rehabilitation service (not the same as the Commonwealth funded transitional aged care program or community services)?
Justification	To determine if the hospital has access to early supported home-based hip fracture rehabilitation for patients recovering from a hip fracture.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	Early supported discharge should be considered provided the patient is medically stable and has the mental ability to participate in continued rehabilitation and is able to transfer and mobilise short distances and has not yet achieved their full rehabilitation potential, as discussed with the patient, carer and family.

Variable #	11.04
Variable	**Injury prevention**
Variable Name	prevention_written
Definition	Does your service provide individualised written information to patients on discharge that includes recommendations for future falls and fracture prevention? (not the same as a copy of a discharge summary)
Justification	To determine if the hospital provides written information to patients on discharge regarding fall and fracture-related injury prevention. Hip Fracture Care Clinical Care Standard Indicator 7a.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	Evidence of local arrangements for the development of an individualised care plan for hip fracture patients prior to the patient's separation from hospital. Documented local arrangements for patients with a hip fracture to have an individualised care plan developed prior to the patients separation from hospital, and provisions to make this available to them (and/or their carer), and to their general practitioner and other ongoing clinical care provider within 48 hours of the patient leaving the hospital. The plan should describe the care received by the patient during their hospital stay and ongoing care and goals of care. The plan must include a summary of any changes to medicines, any new medicines, and equipment and contact details for rehabilitation services they may require. It should also describe mobilisation activities, wound care and function post-surgery, and include information and recommendations for secondary fracture prevention.

Variable #	11.05
Variable	**Falls clinic**
Variable Name	falls_clinic
Definition	Does your service have access to a Falls Clinic (Public)
Justification	To determine if the hospital has access to a Falls clinic for the prevention of future falls
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	11.06
Variable	**Osteoporosis clinic**
Variable Name	op_clinic
Definition	Does your service have access to an Osteoporosis Clinic (Public)
Justification	To determine if the hospital has access to an osteoporosis clinic for the management of bone health
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	11.07
Variable	**Falls and bone health clinic**
Variable Name	falls_bone_clinic_comb
Definition	Does your service have access to a combined Falls and Bone Health Clinic (Public)
Justification	To determine if the hospital has access to a Falls and Bone Health clinic for the management and prevention of future injury.
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	11.08
Variable	**Orthopaedic clinic**
Variable Name	ortho_clinic
Definition	Does your service have access to an Orthopaedic Clinic (Public)
Justification	To determine if the hospital has access to an Orthopaedic clinic
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	11.09
Variable	**Fracture liaison service**
Variable Name	fls
Definition	Do you have a Fracture Liaison Service, whereby there is systematic identification of fracture patients by a fracture liaison nurse, with a view to onward referrals and management of osteoporosis?
Justification	To determine if the hospital has access to a fracture liaison service
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 Yes – hip fracture patients only 2 Yes – all fracture patients (including hip) 9 Not known
FLA Comments	A Fracture Liaison Service may employ health care professionals who are not nurses, such as physiotherapists, and who are called Fracture Liaison Coordinators.

Section 12	Other aspects of care

Variable #	12.01
Variable	**Hip fracture data**
Variable Name	data_collect
Definition	Does your hospital routinely collect hip fracture data?
Justification	To determine if the hospital routinely collects hip fracture data to enable review of service provision and outcomes
Format	Numerical, N
Status	core
Coding Source	
Coding Frame	0 No 1 ANZ Hip Fracture Registry 2 Local System 9 Not known
FLA Comments	

Variable #	12.02
Variable	**Service provision plans**
Variable Name	serv_alt_12mths
Definition	Do you have any plans to alter any of your service provision for hip fracture patients over the next 12 months – if so please give details?
Justification	To determine if the hospital will alter any service provision for hip fracture patients
Format	Numerical, N
Status	non core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	12.03
Variable	**Service provision plan details**
Variable Name	serv_alt_detail
Definition	Type of service provision plans
Justification	To determine the type of service provision changes that are to be made
Format	Text
Status	non core
Coding Source	
Coding Frame	
FLA Comments	

Variable #	12.04
Variable	**Service provision barriers**
Variable Name	serv_alt_barriers
Definition	Are there identified barriers to any proposed service redesign?
Justification	To determine if there are any perceived barriers to service provision changes
Format	Numerical, N
Status	non core
Coding Source	
Coding Frame	0 No 1 Yes 9 Not known
FLA Comments	

Variable #	12.05
Variable	**Service provision barrier details**
Variable Name	serv_barriers_detail
Definition	Type of barriers to proposed service redesign
Justification	To determine the type of perceived barriers to service provision changes
Format	Text
Status	non core
Coding Source	
Coding Frame	
FLA Comments	