

ENHANCING OUTCOMES FOR OLDER PEOPLE

The Australian and New Zealand Hip Fracture Registry (ANZHFR) extends its sincere thanks to the multidisciplinary teams of the **100 hospitals** that contributed data in 2023 (79 hospitals in Australia and 21 hospitals in New Zealand).

The ANZHFR receives funding from the Australian Government Department of Health and Aged Care, New Zealand Accident Compensation Corporation, Victorian Agency for Health Information, SA Health, WA Health and Queensland Health, and receives in-kind support from Neuroscience Research Australia, UNSW Sydney and the New Zealand Orthopaedic Association.



HDU





ABBREVIATIONS

High Dependency Unit

ACT	Australian Capital Territory	ICU
ANZ	Australia and New Zealand	LOS
ANZBMS	Australian and New Zealand Bone and	NOF
	Mineral Society	NSW
ANZHFR	Australian and New Zealand Hip Fracture Registry	NT
4 N 17 ON 1 A	<i>。</i>	NZ
ANZONA	Australian and New Zealand Orthopaedic Nurses Alliance	NZOA
ANZSGM	Australian and New Zealand Society for	OT
	Geriatric Medicine	PREM
ACSQHC	Australian Commission on Safety and Quality	QLD
	in Health Care	SA
AOA	Australian Orthopaedic Association	TAS
AORA	Australian Orthopaedic Registrars' Association	VIC
ASA	American Society of Anesthesiologists	WA
AUS	Australia	
CCS	Clinical Care Standard	NOTE: F
ED	Emergency Department	rehabilit
GP	General Practitioner	or privat

ICU Intensive Care Unit
LOS Length of stay
NOF Neck of femur
NSW New South Wales
NT Northern Territory
NZ New Zealand
NZOA New Zealand Orthopaedic Association
OT Operating Theatre
PREM Patient Reported Experience Measure
QLD Queensland
SA South Australia
TAS Tasmania
VIC Victoria
WA Western Australia

NOTE: Rehabilitation – when used in the figures, rehabilitation refers to inpatient rehabilitation at a public or private hospital. It does not include rehabilitation provided in the community or private residence.



In the spirit of reconciliation, the ANZHFR acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

The ANZHFR acknowledges Māori as tangata whenua and Treaty of Waitangi partners in Aotearoa New Zealand.

Report prepared on behalf of the ANZHFR Steering Group by:

Ms Jamie Hallen, Registry Manager; Mr Stewart Fleming, Webmaster; Professor Jacqueline Close AM, ANZHFR Co-Chair Geriatric Medicine; A/Professor Chris Wall, ANZHFR Co-Chair Orthopaedic Surgery.

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CO-CHAIRS' FOREWORD

We are delighted to welcome you to the 2024 ANZHFR Annual Report, which includes an additional 17,734 records from 100 hospitals. This report is possible because of the steadfast commitment of the multidisciplinary teams across Australia and New Zealand that care for people after hip fracture. We are grateful for the time and energy dedicated to Registry activities and improving the care provided to older people.

Whilst all eligible New Zealand hospitals are contributing to the Registry, with a case ascertainment of 89%, we continue to strive towards 100% of eligible Australian public hospitals providing patient-level data, and to increase the contribution of Australian private hospitals that manage hip fractures. Currently 84 out of 91 (92%) public hospitals have approval to contribute data in Australia, with most contributing data annually. This ninth Annual Report reflects an ongoing increase in participation. We are pleased to have welcomed several new hospitals over the last year, including Royal Darwin Hospital, The Canberra Hospital and Albury Wodonga Health.

The printed report focuses on performance against the Hip Fracture Care Clinical Care Standard (CCS). We have made changes to the quality indicator charts, introducing caterpillar charts to display performance for the first time. Detailed information on how to interpret these charts and view the charts online is included in this report. The supplementary e-Report covers additional domains relevant to clinicians, managers, and funders of healthcare services. We have again produced a summary video detailing the key report findings, as this was a well-received addition last year. Both reports, the summary video and the customisable PowerPoint slide pack are available on our website at https://anzhfr.org/registry-reports/.

In alignment with our priority of increasing the consumer voice, the ANZHFR is pleased to include a summary of patient-reported outcomes at 120-days post hip fracture

and information about the newly available patient experience measure. We will be exploring the data in greater depth over the coming months and look forward to sharing insights into what patient reported measures can tell us about hip fracture care and recovery. The Registry remains committed to collecting and reporting on outcomes that matter to older people. We have welcomed Ms Narelle Payne into the role of Consumer Engagement Lead, a positive step in strengthening relationships with consumers and striving to ensure they are our partners in improving hip fracture care. If you know someone that might like to contribute to the ANZHFR as a consumer representative, please email Narelle in Australia: myhipmyvoice@anzhfr.org or Nicola in New Zealand: nicola@nzoa.org.nz.

Whilst the ANZHFR data is available in real-time to contributing sites, the Annual Report is an important opportunity to celebrate progress and reflect on areas that remain challenging. Preoperative assessment of cognition and assessment of delirium show sustained improvements over time, with notable improvement made in New Zealand this year. The use of nerve blocks has increased, with 83% of patients receiving a nerve block prior to arrival in the operating theatre. Whilst best described as improving at a glacial pace, bone protection medication at discharge has improved, and it is hoped that larger gains are made in the coming years as there is increased international consensus around osteoporosis treatment after hip fracture.

Quality indicators where performance has not improved include the proportion of patients who had **surgery** within 48 hours and those who achieved first day walking. Both prompt surgery and early mobility are important to patients and are associated with improved outcomes. With the change in the target time to surgery to 36 hours from January 2024, meeting this challenge will require collaboration between all stakeholders. Identifying ways to improve theatre access and reduce other modifiable delays, including anticoagulation, must be jointly tackled by health service managers and multidisciplinary teams.



To support quality improvement, the ANZHFR has completed its 2024 Sprint Audit, examining direct oral anticoagulants (DOACs). The Sprint Audit looks at current practice against recently established principles for management of hip fracture patients taking DOACs. The working group of the Fragility Fracture Network Hip Fracture Audit Special Interest Group that developed the principles was led by members of the ANZHFR Steering Group, Dr Hannah Seymour, Professor Rebecca Mitchell, and Dr Seth Tarrant. We congratulate them on their work, which will ultimately support more timely surgery for this group of patients and look forward to sharing the results of the Sprint Audit.

With data on more than 110,000 hip fractures, the ANZHFR continues to grow as a platform for clinical research, practice development and to support clinicians and researchers in using the data to explore aspects of hip fracture care. A full list of publications and more information about using ANZHFR data can be found at: https://anzhfr.org/research/.

Hip Festivals offer an important opportunity to come together and share the latest evidence and good practice initiatives in hip fracture care. In 2023, the New Zealand Hip Festival was held in Auckland and the Binational Hip Festival was held on the Sunshine Coast in Australia. We extend our sincere thanks to the Australian Commission on Safety and Quality in Health Care for joining us to launch the revised Hip Fracture CCS at the Binational Hip Festival. The Registry is grateful for the Commission's support and looks forward to ongoing collaboration in improving outcomes for older people after hip fracture. It should be noted that this year, we continue to report against the 2016 version of the Hip Fracture Care CCS. The ANZHFR dataset was

updated on 1 January 2024, and we will report on the revised quality indicators for the first time in 2025.

We would like to take this opportunity to acknowledge the invaluable contribution of members of the ANZHFR Steering Group who have stepped down over the past 12 months. We extended our heartfelt thanks to A/Professor Catherine McDougall for her leadership, expertise and commitment as the Orthopaedic Co-Chair. We also thank Ms Anita Taylor (ANZONA) and A/Professor Mellick Chehade (ANZBMS) who have been with us from the start of the Registry.

Renewal is critical to the success and longevity of a Registry, and we are delighted to have welcomed new members to the Steering Group, including Ms Melissa Davis (ANZONA), A/Professor Michael Wyatt (AOA), Dr Chrys Pulle (ANZSGM), Dr Raymond Kim (AORA), Dr Seth Tarrant (Orthopaedic Surgeon), Professor Charles Inderjeeth (ANZBMS) and Dr Hasanka Ratnayake (Geriatrician). We also extend a warm welcome to Carmelle Moses, who has commenced as a Project Manager for the Registry.

As always, we are indebted to our Registry managers – Jamie Hallen in Australia and Nicola Ward in New Zealand. Jamie, Nicola, and their support teams are the heartbeat of this Registry, and we look forward to another productive year in our quest to improve hip fracture care across Australia and New Zealand.

Professor Jacqueline Close AM Geriatrician

Co-Chair Australian and New Zealand Hip Fracture Registry A/Professor
Chris Wall
Orthopaedic Surgeon

Co-Chair Australian and New Zealand Hip Fracture Registry

CONTRIBUTING HOSPITALS 2023

The patient-level report includes data from 100 hospitals.

IN 2023

17,734 hip fracture records were contributed for the calendar year.

14,066 records from 79 Australian hospitals and 3,668 records from 21 New Zealand hospitals.

Contributing hospitals are listed following with their three-letter report identifier and the number of records contributed for the 2023 calendar year. All New Zealand hospitals and 76 Australian hospitals have elected to be identified in this report.

PATIENT LEVEL AUDIT

NEW ZEALAND HOSPITALS

	REPORT ID	2023
Auckland City Hospital	ACH	338
Christchurch Hospital	CHC	479
Dunedin Hospital	DUN	177
Gisborne Hospital	GIS	41
Hawkes Bay Hospital	HKB	12
Hutt Valley Hospital	HUT	113
Middlemore Hospital	MMH	278
Nelson Hospital	NSN	106
North Shore Hospital	NSH	443
Palmerston North Hospital	PMR	175
Rotorua Hospital	ROT	72
Southland Hospital	INV	94
Taranaki Base Hospital	TAR	116
Tauranga Hospital	TGA	210
Timaru Hospital	TIU	69
Waikato Hospital	WKO	342
Wairau Hospital	BHE	52
Wellington Hospital	WLG	288
Whakatane Hospital	WHK	36
Whanganui Hospital	WAG	55
Whangarei Hospital	WRE	172



AUSTRALIAN HOSPITALS

	REPORT ID	2023
Albany Hospital	ABA	38
Armidale Hospital	ARM	20
Ballarat Base Hospital	BAL	144
Bankstown / Lidcombe Hospital	BKL	179
Bendigo Base Hospital	H12*	224
Blacktown Hospital	BMD	181
Box Hill Hospital	BOX	198
Bunbury Hospital	BRH	146
Cabrini Malvern Hospital	CHM	105
Cairns Hospital	CNS	237
Campbelltown Hospital	CAM	105
Canterbury Hospital	CAN	81
Coffs Harbour Base Hospital	CFS	103
Concord Hospital	CRG	135
Dandenong Hospital	DDH	324
Dubbo Base Hospital	DBO	107
Fiona Stanley Hospital	FSH	664
Flinders Medical Centre	FMC	153
Footscray Hospital	FOO	158
Frankston Hospital	FRA	268
Geelong Hospital	GUH	181
Geraldton Regional Hospital	GRH	31
Gold Coast University Hospital	GCH	24
Gosford Hospital	GOS	364
Goulburn Base Hospital	GLB	31
Grafton Hospital	GBH	60
Hornsby Ku-ring-gai Hospital	HKH	130
Ipswich Hospital	IPS	135
John Hunter Hospital	JHH	425
Joondalup Hospital	JHC	210
Launceston Hospital	LGH	154
Lismore Base Hospital	LBH	117
Liverpool Hospital	LIV	232
Logan Hospital	LOG	105
Lyell McEwin Hospital	LMH	274
Mackay Base Hospital	MKY	50
Manning Base Hospital	MBH	117
Maroondah Hospital	MAR	203
Mater Hospital	MSB	92
Nepean Hospital	NEP	285

	REPORT ID	2023
North West Regional Hospital	NWR	88
Northeast Health Wangaratta Hospital	NHW	90
Northern Beaches Hospital	NBH	184
Orange Health Service Hospital	OHS	137
Port Macquarie Base Hospital	PMB	132
Prince of Wales Hospital	POW	177
Princess Alexandra Hospital	PAH	161
QEII Hospital	QII	169
Queen Elizabeth Hospital	QEH	165
Redcliffe Hospital	RED	114
Robina Hospital	ROB	326
Rockhampton Hospital	ROK	112
Royal Adelaide Hospital	RAH	444
Royal Darwin Hospital	###	20
Royal Hobart Hospital	RHH	165
Royal Melbourne Hospital	RMH	156
Royal North Shore Hospital	RNS	178
Royal Perth Hospital	RPH	489
Royal Prince Alfred Hospital	RPA	167
Ryde Hospital	RYD	116
Shoalhaven District Memorial Hospital	###	118
Sir Charles Gairdner Hospital	SCG	327
St George Hospital	STG	248
St Vincent's Hospital Darlinghurst	SVD	119
St Vincent's Hospital Melbourne	SVM	133
Sunshine Coast University Hospital	SCU	202
Tamworth Hospital	TAM	120
The Alfred	TAH	234
The Northern Hospital	TNH	238
The Prince Charles Hospital	PCH	513
The Sutherland Hospital	TSH	162
The Wesley Hospital	###	10
Toowoomba Hospital	TWB	189
Townsville Hospital	TSV	208
Tweed Hospital	TWE	96
Wagga Wagga Base Hospital	WGG	187
Werribee Mercy Hospital	WMH	87
Westmead Hospital	WMD	238
Wollongong Hospital	TWH	257

^{*} Approval to identify site was granted just prior to publication.

DATA QUALITY, CAVEATS AND LIMITATIONS

The patient-level report includes data from 100 hospitals. In 2023, 17,734 hip fracture records were contributed for the calendar year: 14,066 records from 79 Australian hospitals and 3,668 records from 21 New Zealand hospitals.

CAVEATS

- The figures in this report include data from Australia and New Zealand for all records with an ED arrival, in-hospital fracture, or transfer date, from midnight 1 January 2023 to midnight on 31 December 2023.
- > Figures in the patient-level report only include records where data is available.
- Hospitals must have contributed at least 10 patient records during the relevant calendar year to be included in the patient-level report.
- All figures adhere strictly to a minimum 10 records required rule other than 120-day follow-up where a follow-up of 70% was required for inclusion in the caterpillar charts.
- Where the figure has featured in previous years, average bars from the previous four reports are included for comparison. If the variable has been reported for less than five years, all available average bars are reported.
- New Zealand has elected to identify all hospitals with a hospital specific code. Three Australian hospitals have chosen not to be identified and have been randomly assigned a number that has been used consistently throughout this report. The number has been provided to the principal investigator for each hospital. Where the hospital has never been identified, the number has been consistently used for all years.

COMPLETENESS

Completeness refers to the number of variables completed per record over the number of variables eligible to be completed for that patient. The Registry utilises automated and manual data completeness checks for each record. When logged into the Registry, users can view the percentage of variables completed per record and details of missing variables. In 2023, completeness was 99% for New Zealand hospitals and 97% for Australia.

CORRECTNESS

Correctness refers to the accuracy of the data entered into each data field. The ANZHFR utilises data validation rules and inbuilt date/time sequence checks to reduce the possibility of incorrect data being entered. Pop-up warnings alert users if the data falls outside any of the specified limits, which assists users to identify potentially incorrect data. Yearly validation checks built into the Registry database also allows users to review any outliers (values that appear too high or low).

The ANZHFR has also released a quality audit tool. The tool enables participating sites to check the quality of a random selection of 10% of records entered into the registry (up to a maximum of 25 records for high volume sites). Undertaking the audit is voluntary. The ANZHFR received valuable feedback around the benefits and challenges associated with completing the audit and will continue to work with sites to enhance the value of the quality audit tool, which will be made available again later in 2024.

CAPTURE/ASCERTAINMENT

Capture/ascertainment refers to the proportion of eligible patients that are captured by the Registry. High levels of capture allow the findings to be generalised to the whole population. If the capture rate is low, selection bias may be introduced where included or excluded patients are systematically different from each other. This may affect the generalisability of the findings.

In New Zealand, the number of hip fracture cases in the registry can be compared with the discharge coding from the National Minimum Data Set (NMDS). The numbers are extracted in March for the previous calendar year during which the data collection took place. There is minimal change in the numbers after this date and this provides a good comparator with which to judge ascertainment. Ascertainment has increased from 20% in 2016 to 89% in 2023.

In Australia, ascertainment is difficult to source due to jurisdictional differences in the collection and reporting of data. The ANZHFR hopes to be able to report this information for Australia in the future.

GUIDE TO CATERPILLAR CHARTS

This year for the first time, performance against the quality indicators is shown using 'caterpillar charts'.

Each 'caterpillar chart' shows the key performance indicator (KPI) achievement for hospitals that have contributed at least 10 records for that indicator.

There is a separate chart for New Zealand and Australian hospitals.

Each chart shows:

- 1. The national average (red dotted line) and individual performance (dark blue dot) for participating hospitals.
- 2. The 95% confidence interval calculated for each hospital based on the variation of data they have submitted.

There is a labelled example below.

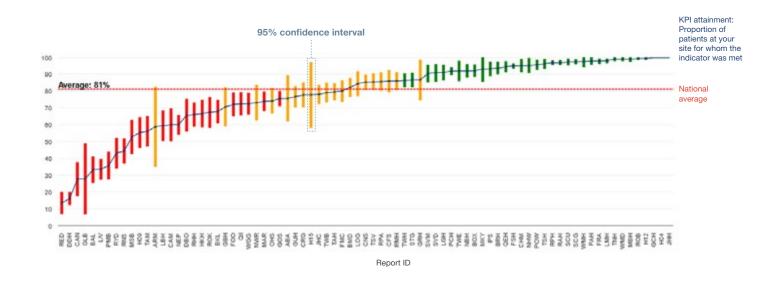
Each hospital is identified as:

Below average (Red) – if the KPI and 95% confidence interval values are lower than the national average, or

Average (Orange) – if the KPI and 95% confidence interval values include or cross the national average, or

Above average (Green) – if the KPI and 95% confidence interval values are higher than the national average

Presenting the data this way should allow sites to more easily determine areas of high performance, and areas that need review.





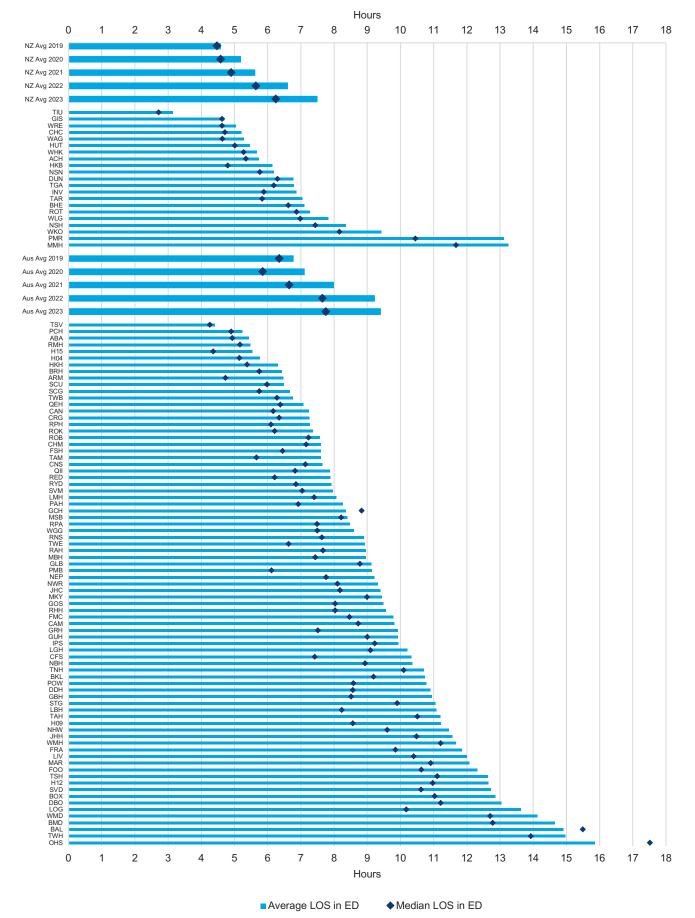
The charts can be viewed online at

Select the year (2023), your hospital name and the caterpillar charts will be found under Report Type - Quality Statements.

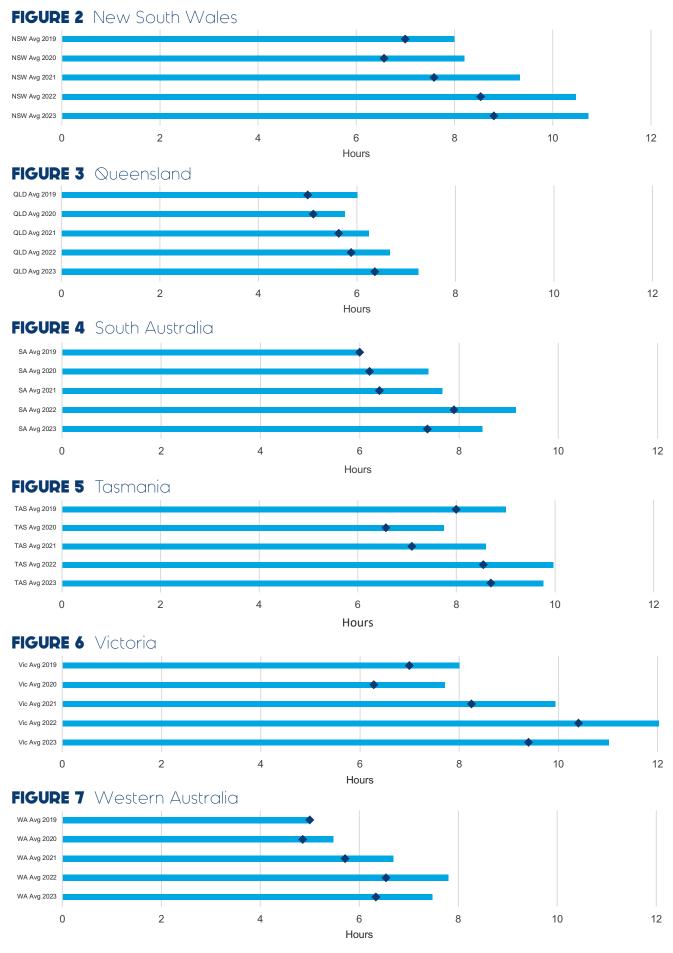


FIGURE 1 Emergency department (ED) length of stay (LOS)

The average ED LOS and median ED LOS have increased each year since 2018 in both countries. In 2023, average LOS in New Zealand was 7.4 hours and average LOS in Australia was 9.4 hours. The median LOS in the ED was 6.3 hours in New Zealand and 7.8 hours in Australia.



ED LOS BY AUSTRALIAN STATE

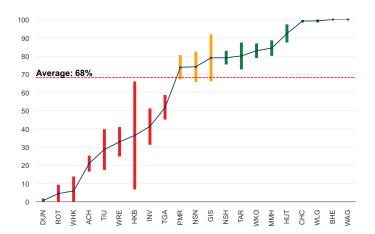


INDICATOR IB:

Proportion of patients with a hip fracture who have had their preoperative cognitive status assessed

FIGURE 8

Preoperative cognitive assessment for people aged ≥ 65 years in New Zealand

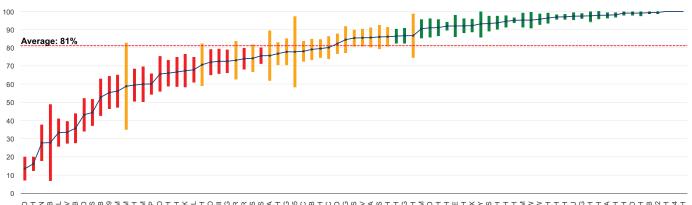


Since 2018, Australia and New Zealand have shown year-on-year increases in preoperative assessment of cognition in hip fracture patients.

Sixty-eight percent of hip fracture patients ≥ 65 years in New Zealand (Figure 8) and 81% in Australia (Figure 9) had their cognition assessed using a validated tool prior to surgery.

FIGURE 9

Preoperative cognitive assessment for people aged ≥ 65 years in Australia



PREOPERATIVE COGNITIVE ASSESSMENT BY AUSTRALIAN STATE FOR PEOPLE AGED ≥ 65 YEARS

FIGURE 10 New South Wales

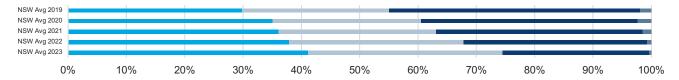


FIGURE II Queensland

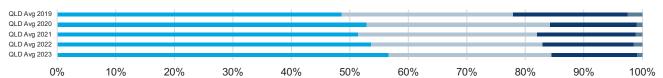


FIGURE 12 South Australia

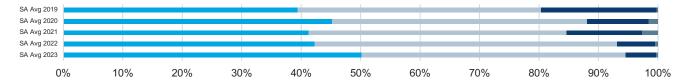


FIGURE 13 Tasmania

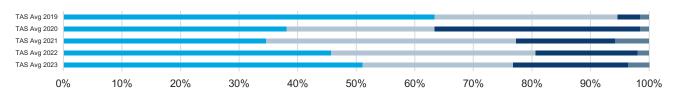


FIGURE 14 Victoria

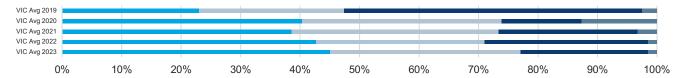
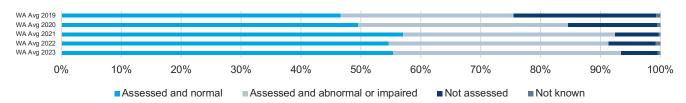


FIGURE 15 Western Australia

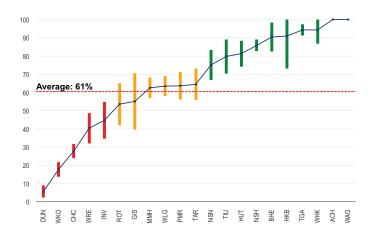


INDICATOR 2B:

Proportion of patients with a hip fracture who have a documented assessment of pain within 30 minutes of presentation to the ED and either receive analgesia within this time or do not require it according to the assessment

FIGURE 16

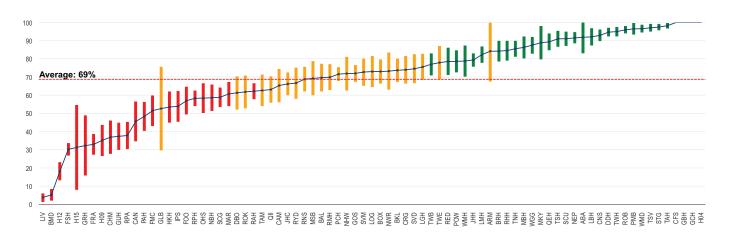
Pain assessment within 30 minutes of ED presentation in New Zealand



On average, 61% of New Zealand hip fracture patients (Figure 16) and 69% of Australian hip fracture patients (Figure 17) had a documented assessment of pain within 30 minutes of presentation.

FIGURE 17

Pain assessment within 30 minutes of ED presentation in Australia



PAIN ASSESSMENT WITHIN 30 MINUTES OF ED PRESENTATION BY AUSTRALIAN STATE

FIGURE 18 New South Wales

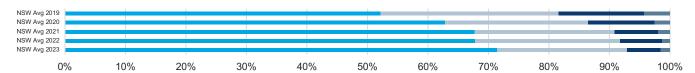


FIGURE 19 Queensland

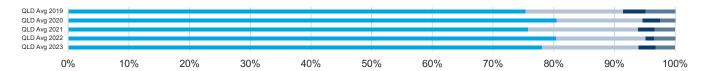


FIGURE 20 South Australia

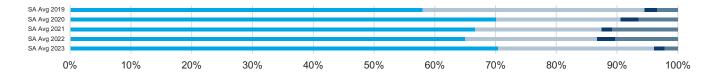


FIGURE 21 Tasmania

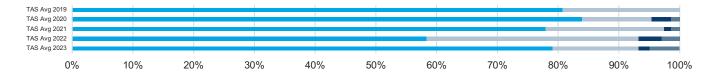


FIGURE 22 Victoria

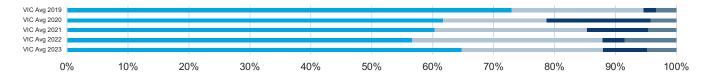
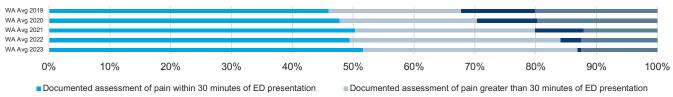


FIGURE 23 Western Australia

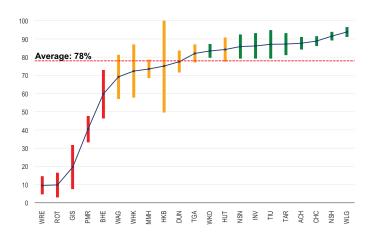


- Pain assessment not documented or not done

■ Not known

USE OF NERVE BLOCKS

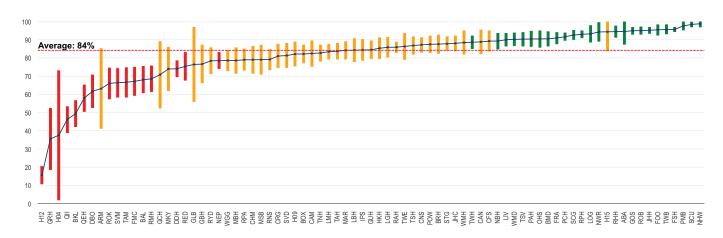
FIGURE 24 Use of nerve blocks: New Zealand



Seventy-eight percent of patients in New Zealand (Figure 24), and 84% of patients in Australia (Figure 25) received a nerve block before arriving in the operating theatre.

This represents a steady increase in both countries since 2015.

FIGURE 25 Use of nerve blocks: Australia



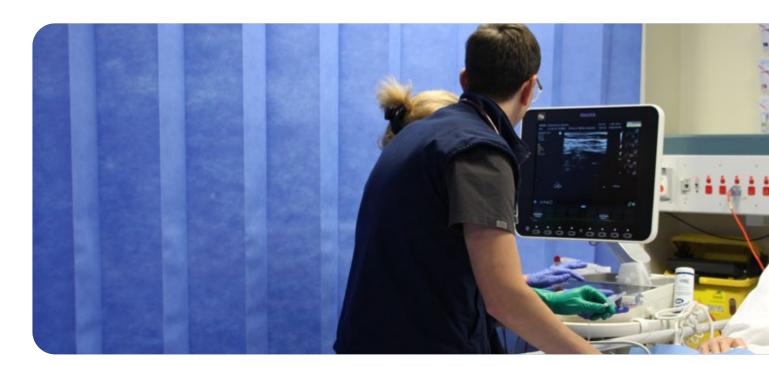
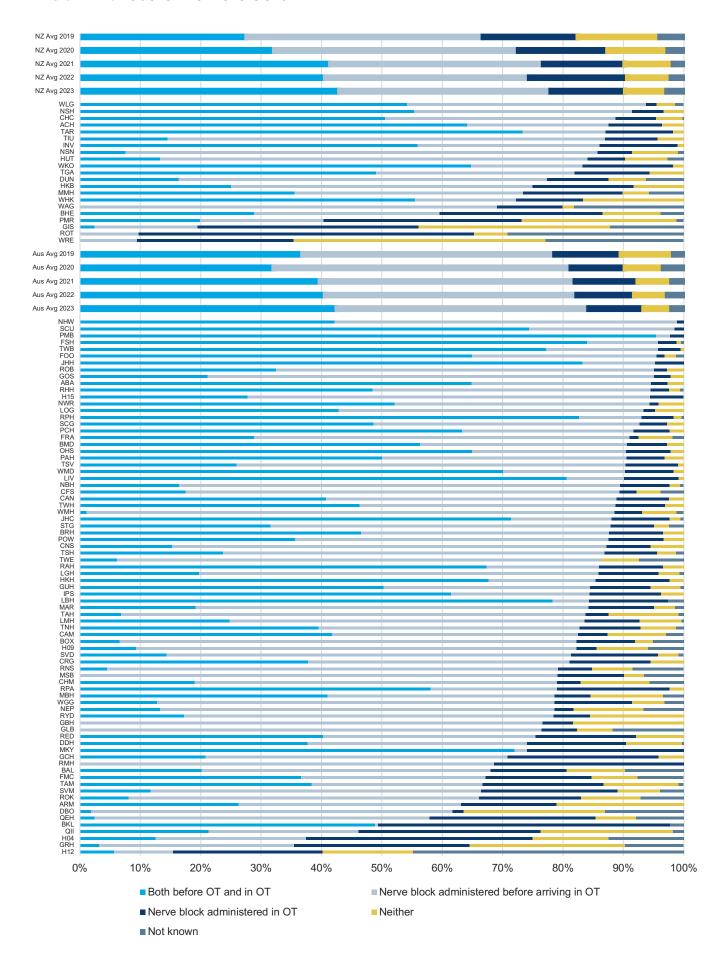


FIGURE 26 Use of nerve blocks



USE OF NERVE BLOCKS BY AUSTRALIAN STATE

FIGURE 27 New South Wales

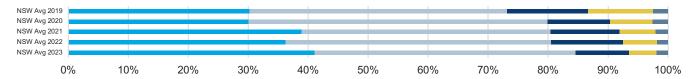


FIGURE 28 Queensland

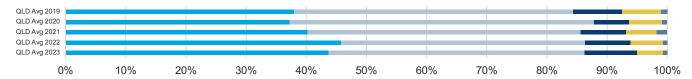


FIGURE 29 South Australia

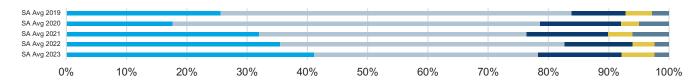


FIGURE 30 Tasmania

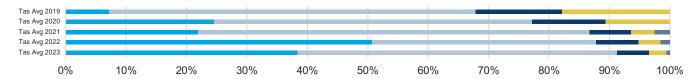


FIGURE 31 Victoria

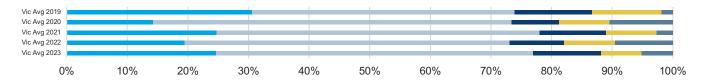
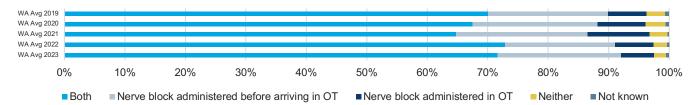


FIGURE 32 Western Australia

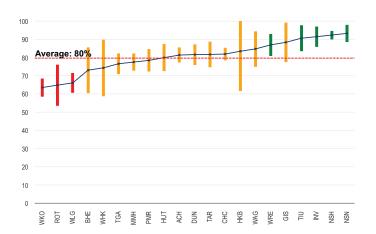




INDICATOR 4A:

Proportion of patients with a hip fracture receiving surgery within 48 hours of presentation with the hip fracture

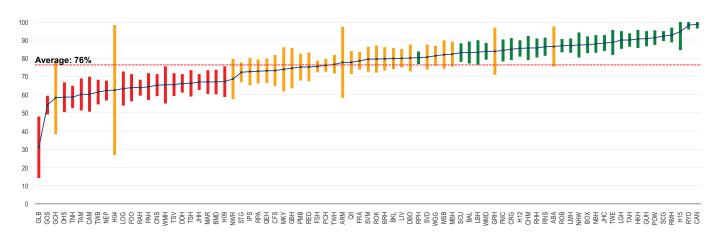
FIGURE 33 Surgery within 48 hours: New Zealand



Prompt hip fracture surgery reduces morbidity, aids functional recovery, and reduces length of stay.

Eighty percent of patients in New Zealand (Figure 33) and 76% of patients in Australia (Figure 34) who underwent surgery were operated on within 48 hours of presentation to the first hospital. There has been little change in performance since 2015 and considerable variation between sites remains.

FIGURE 34 Surgery within 48 hours: Australia



SURGERY WITHIN 48 HOURS BY AUSTRALIAN STATE

FIGURE 35 New South Wales

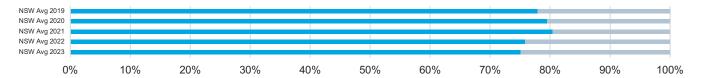


FIGURE 36 Queensland

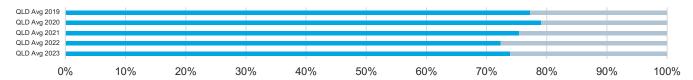


FIGURE 37 South Australia

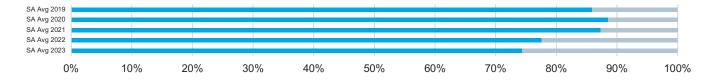


FIGURE 38 Tasmania

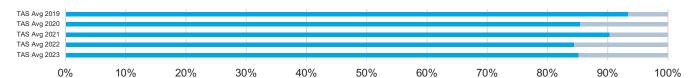


FIGURE 39 Victoria

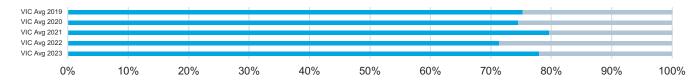


FIGURE 40 Western Australia

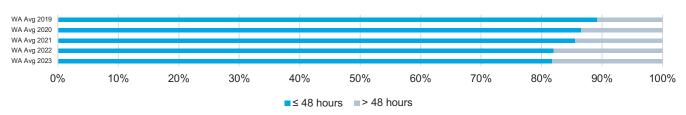




FIGURE 41 Reason for delay > 48 hours for New Zealand

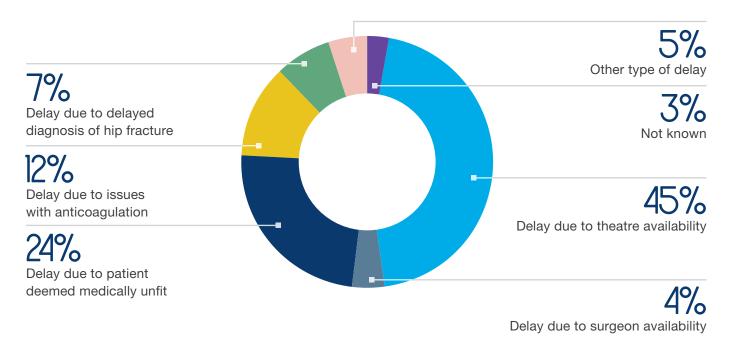
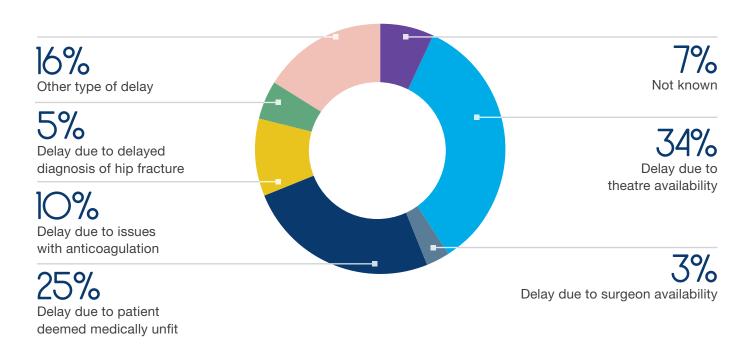


FIGURE 42 Reason for delay > 48 hours for Australia

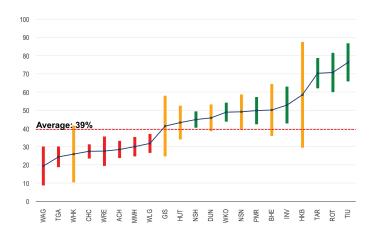




INDICATOR 5A:

Proportion of patients with a hip fracture who are mobilised on day one post hip fracture surgery

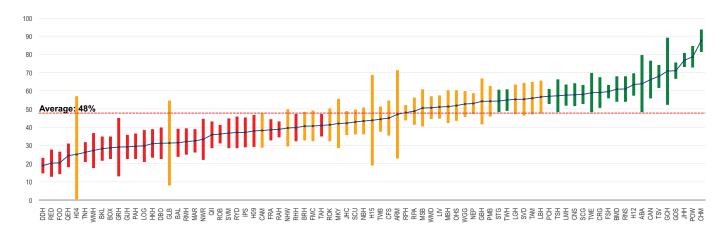
FIGURE 43 First day walking: New Zealand



Thirty-nine percent of patients in New Zealand (Figure 43) and 48% of patients in Australia (Figure 44) achieved first day walking.

This means they managed to stand and step transfer out of bed onto a chair/commode or walk. It does not include sitting over the edge of the bed or standing up from the bed without stepping/walking.

FIGURE 44 First day walking: Australia



FIRST DAY WALKING BY AUSTRALIAN STATE

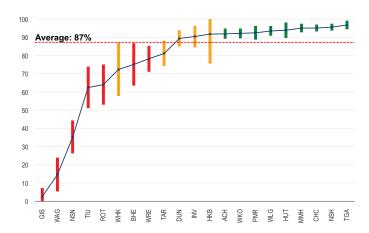


INDICATOR 3A:

Evidence of orthogeriatric management during an admitted patient's hip fracture episode of care

FIGURE 51

Assessed by geriatric medicine during acute admission in New Zealand



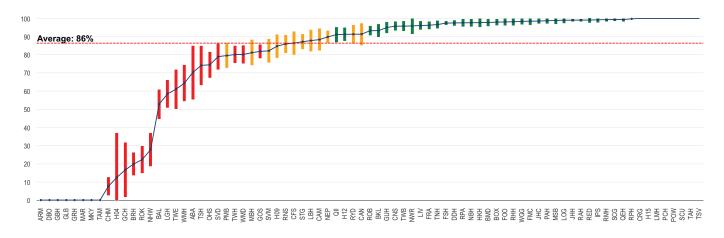
Early and ongoing orthogeriatric assessment is key to high-quality hip fracture care.

In New Zealand, 87% of hip fracture patients saw a geriatrician during their acute hospital stay (Figure 51).

Eight-six percent of patients in Australia saw a geriatrician during their acute hospital stay (Figure 52).

FIGURE 52

Assessed by geriatric medicine during acute admission in Australia



ASSESSED BY GERIATRIC MEDICINE DURING ACUTE ADMISSION BY AUSTRALIAN STATE

FIGURE 53 New South Wales

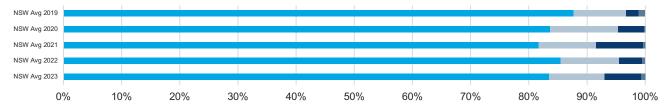


FIGURE 54 Queensland

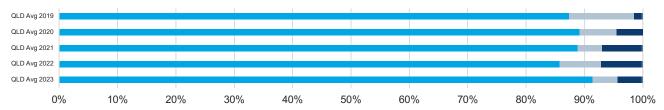


FIGURE 55 South Australia

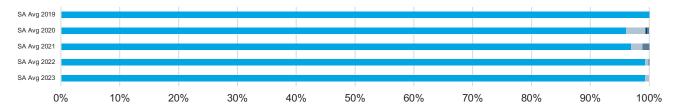


FIGURE 56 Tasmania

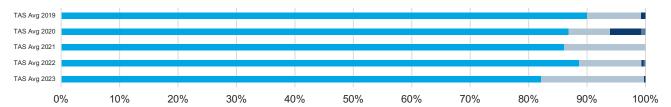


FIGURE 57 Victoria

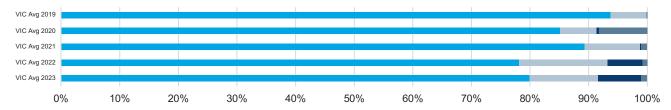
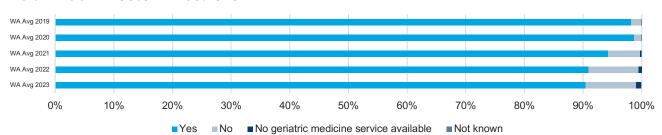


FIGURE 58 Western Australia

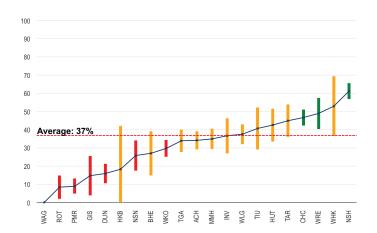


INDICATOR 6A:

Proportion of patients with a hip fracture receiving bone protection medicine prior to separation from the hospital at which they underwent hip fracture surgery

FIGURE 59

Bone protection medication on discharge: New Zealand



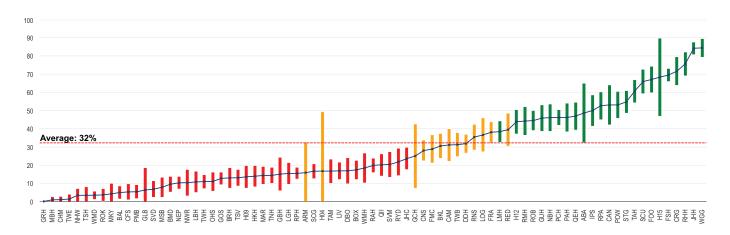
There continues to be a gradual improvement in the proportion of people leaving hospital on a bisphosphonate, denosumab or teriparatide from 2015.

In New Zealand, 37% of hip fracture patients left hospital on bone protection medicine (Figure 59), compared with 11% on admission.

In Australia, 32% of patients left hospital on a bisphosphonate, denosumab or teriparatide (Figure 60), compared with 13% on admission.

FIGURE 60

Bone protection medication on discharge: Australia



BONE PROTECTION MEDICATION ON DISCHARGE BY AUSTRALIAN STATE

FIGURE 61 New South Wales

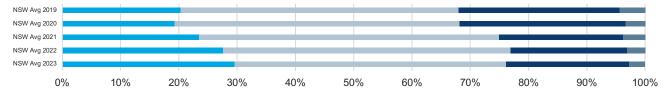


FIGURE 62 Queensland

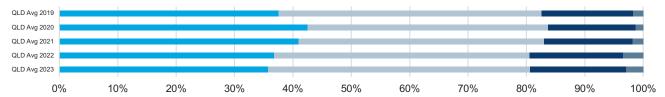


FIGURE 63 South Australia

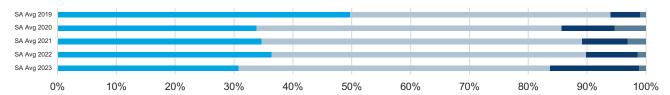


FIGURE 64 Tasmania

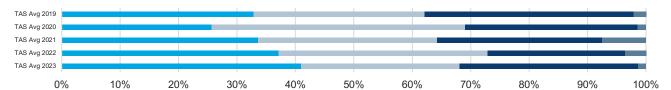


FIGURE 65 Victoria

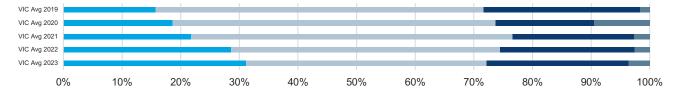
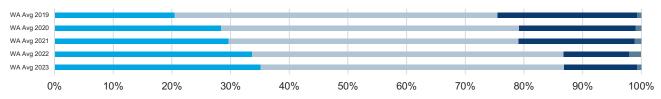


FIGURE 66 Western Australia



■ Yes - Bisphosphonates, denosumab or teriparatide ■ Calcium and/or vitamin D only ■ No bone protection medication ■ Not known



