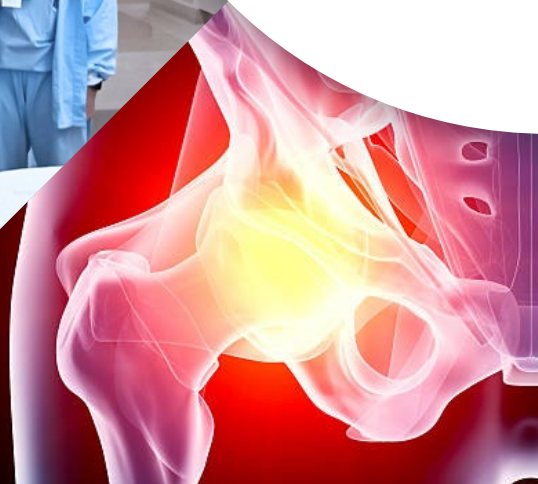




ANNUAL REPORT 2024



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.



ABBREVIATIONS

ACT	Australian Capital Territory	ICU	Intensive Care Unit
ANZ	Australia and New Zealand	KPI	Key Performance Indicator
ANZBMS	Australian and New Zealand Bone and Mineral Society	LOS	Length of stay
ANZHFR	Australian and New Zealand Hip Fracture Registry	NOF	Neck of femur
ANZONA	Australian and New Zealand Orthopaedic Nurses Alliance	NSW	New South Wales
ANZSGM	Australian and New Zealand Society for Geriatric Medicine	NT	Northern Territory
ACSQHC	Australian Commission on Safety and Quality in Health Care	NZ	New Zealand
AOA	Australian Orthopaedic Association	NZOA	New Zealand Orthopaedic Association
AORA	Australian Orthopaedic Registrars' Association	OT	Operating Theatre
ASA	American Society of Anesthesiologists	PREM	Patient Reported Experience Measure
AUS	Australia	PROM	Patient Reported Outcome Measure
CAM	Confusion Assessment Method	QLD	Queensland
CCS	Clinical Care Standard	SA	South Australia
ED	Emergency Department	TAS	Tasmania
GP	General Practitioner	VIC	Victoria
HDU	High Dependency Unit	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.

We are pleased to have highlighted current fasting practices in our 2023 Sprint Audit on preoperative

fasting. The audit showed a median solid fasting time of 12 hours (range 4-54 hours) and median fluid fasting time of 10 hours (range 1-50 hours). We highlight some of the improvement work later in the report, with the implementation of “Sip Til Send” at a growing number of hospitals across Australia and New Zealand.

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

DEMOGRAPHIC INFORMATION

SEX



Females comprised
66%
hip fracture patients
in **Australia** and
68%
in **New Zealand**

AGE



The average age of hip fracture patients was
81 years
in **Australia** and
82 years
in **New Zealand**

USUAL PLACE OF RESIDENCE



74%
of hip fracture patients
in **Australia** and
72%
in **New Zealand** lived at
home prior to their injury



PREADMISSION COGNITIVE STATUS

37%
of hip fracture patients in
Australia and New Zealand
had pre-existing cognitive
impairment or known dementia



PREADMISSION WALKING ABILITY

46%
of hip fracture
patients in
Australia and
45%
in **New Zealand** walked
without a walking aid
prior to their injury

2023 SNAPSHOT

CALENDAR YEAR

PATIENT AND FACILITY LEVEL REPORT

100
ANZ Hospitals

17,734
Records



93%
of hospitals reported having a hip fracture pathway



67%
of patients had a documented assessment of pain within 30 minutes of arrival at the ED



83%
of patients had a nerve block to manage pain before surgery



33%
of patients were on active treatment for osteoporosis at discharge from hospital



80%
of patients who were followed up at 120 days had returned to their own home



78%
of patients had a preoperative assessment of cognition



81%
of hospitals reported having a pain pathway



87%
of patients were seen by a geriatrician during their acute hospital stay



77%
of patients had surgery within 48 hours



50%
of hospitals routinely provide written information on treatment and care after hip fracture



46%
of patients achieved first day walking

LEGEND: ● Improvement ● No change ● Decline in performance

ANZHFR GOLDEN HIP AWARDS 2023

In 2023, the best performing and most improved hospitals in Australia and New Zealand were again recognised for their achievements against the Hip Fracture Care Clinical Care Standard quality indicators.

The **New Zealand Golden Hip Awards** were held as part of the NZ Hip Fest in Auckland. **North Shore Hospital** won the Golden Hip award for best performing hospital for the third year running! **Timaru Hospital** won the Golden Hip award for most improved.

The **Australian Golden Hip Awards** were announced at the Binational Hip Fest on the Sunshine Coast. Concord Repatriation General Hospital won the Golden Hip award for best performing hospital. **St Vincent's Hospital Sydney** won the Golden Hip for most improved.

The ANZHFR warmly congratulates all finalists and the winners on their significant achievements providing high-quality hip fracture care.

NEW ZEALAND FINALISTS: BEST PERFORMING HOSPITAL

North Shore Hospital (Winner)

Middlemore Hospital
Palmerston North Hospital
Southland Hospital
Tauranga Hospital

NEW ZEALAND FINALISTS: MOST IMPROVED HOSPITAL

Timaru Hospital (Winner)

Christchurch Hospital
Wairau Hospital

Timaru Hospital accepts the Golden Hip for Most Improved New Zealand Hospital

From left: Nicky Jones (Physiotherapist), Zoe Matchett (Pain Management) Abby Chamberlain (Clinical Nurse Manager), Samantha Kransingh (Anaesthetist), Eric Bindewald (Clinical Lead Fracture Liaison Service), Sandy Knight (Fracture Liaison Coordinator), Carolyn Cooper (Aged Care Commissioner | Te Toihau Tautiaki Kaumātua, New Zealand)



North Shore Hospital accepts the Golden Hip for Best Performing New Zealand Hospital

From left: Estelle Kent (RN), Tamsin Reilly (RN), Louisa Benner (RN), Gina Cavendish (Physiotherapist), Sharnae Silich (Ortho CNS), Mr Bill Farrington (Orthopaedic surgeon), Dr Min Yee Seow (Orthogeriatrician), Carolyn Cooper (Aged Care Commissioner | Te Toihau Tautiaki Kaumātua, New Zealand)

The Golden Hip award was initiated by the Scottish Hip Fracture Audit to promote and reward better health care for people with hip fractures. Australia and New Zealand have embraced the annual tradition, with our love for some healthy competition becoming evident over the last few years!

AUSTRALIAN FINALISTS: BEST PERFORMING HOSPITAL



Concord Repatriation General Hospital, NSW (Winner)

Fiona Stanley Hospital, WA
 John Hunter Hospital, NSW
 Prince of Wales Hospital, NSW
 Queen Elizabeth Hospital, SA
 Robina Hospital, QLD

Sir Charles Gairdner Hospital, WA
 Sunshine Coast University Hospital, QLD
 The Alfred, VIC
 The Prince Charles Hospital, QLD

Concord Repatriation General Hospital accepts the Golden Hip for Best Performing Australian hospital

From left: Professor Jacqui Close (ANZHFR Co-Chair), Dr Robert O'Sullivan (President ANZSGM), Dr Nargis Shaheen (Geriatrician, Concord Hospital); A/Professor Carolyn Hullick (Chief Medical Officer, ACSQHC), A/Professor Catherine McDougall (Immediate past ANZHFR Co-Chair)

AUSTRALIAN FINALISTS: MOST IMPROVED HOSPITAL



St Vincent's Hospital Sydney, NSW (Winner)

John Hunter Hospital, NSW
 Wollongong Hospital, NSW

St Vincent's Hospital Sydney accepts the Golden Hip for Most Improved Australian hospital

From left: A/Professor Carolyn Hullick (Chief Medical Officer, ACSQHC), Ms Oi Lam Chiu (Occupational Therapist, SVD), Ms Emma Pauley (Physiotherapist, SVD), Dr Robert O'Sullivan (President ANZSGM)

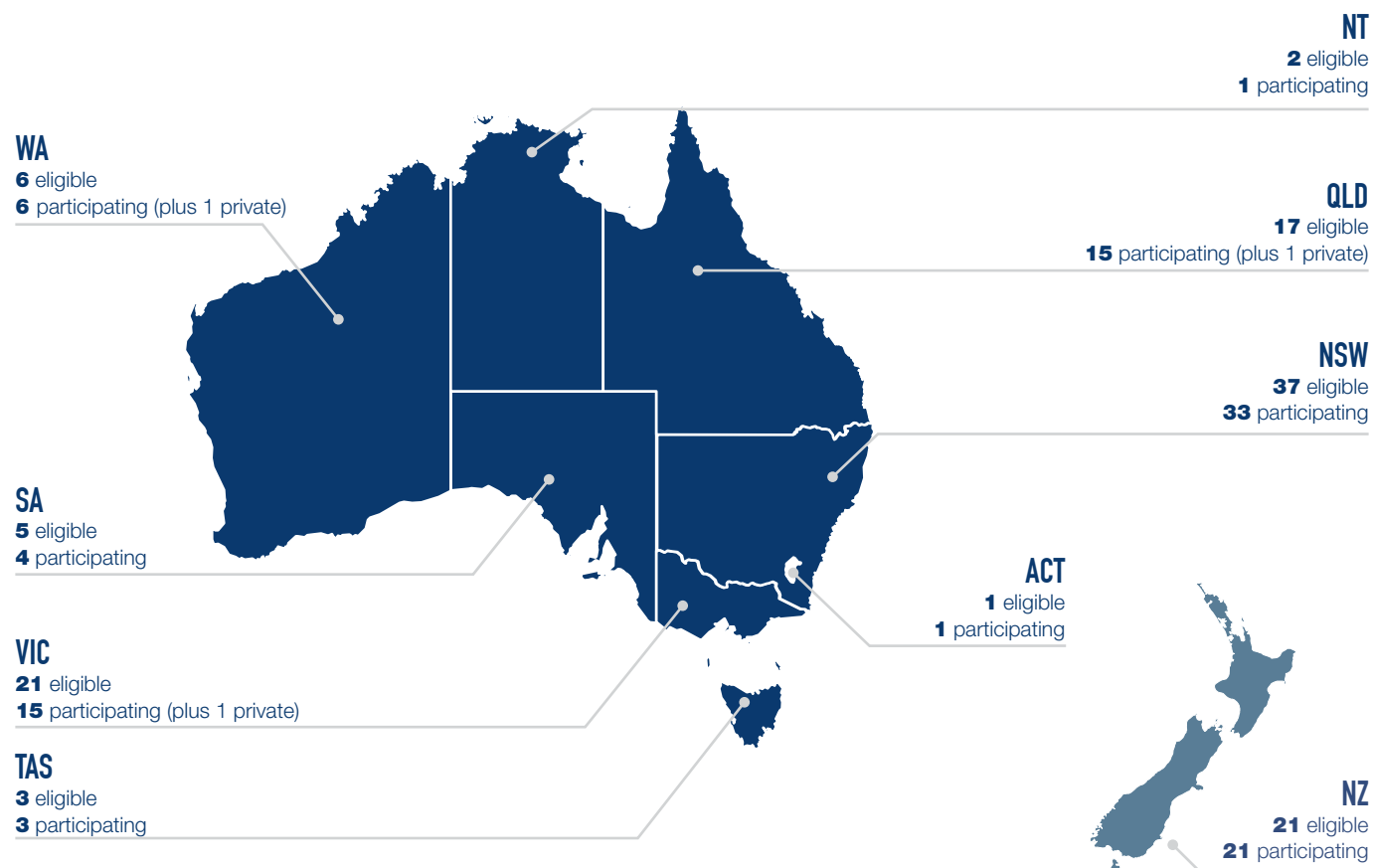
The ANZHFR warmly congratulates all finalists and the winners on their significant achievements providing high-quality hip fracture care.

ANZHFR PARTICIPATION

Hospitals in Australia and New Zealand that provide surgical treatment to patients admitted with a proximal femur fracture are eligible to contribute data to the ANZHFR. The proportion of eligible public hospitals providing patient-level data to the ANZHFR has increased year-on-year since 2015.

As the Registry matures, we have shifted the focus from approval to participate to participation. Not all approved sites have been able to contribute data each year, primarily due to resource limitations. The ANZHFR continues to work with these sites to help identify sustainable processes for participation.

The map shows eligible public hospital participation by Australian state and territory and New Zealand. Four private hospitals currently contribute data to the ANZHFR; one mixed public/private in NSW, one in WA, one in QLD and one in Victoria.



Public sector participation by Australian state and territory and New Zealand at July 2024

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:

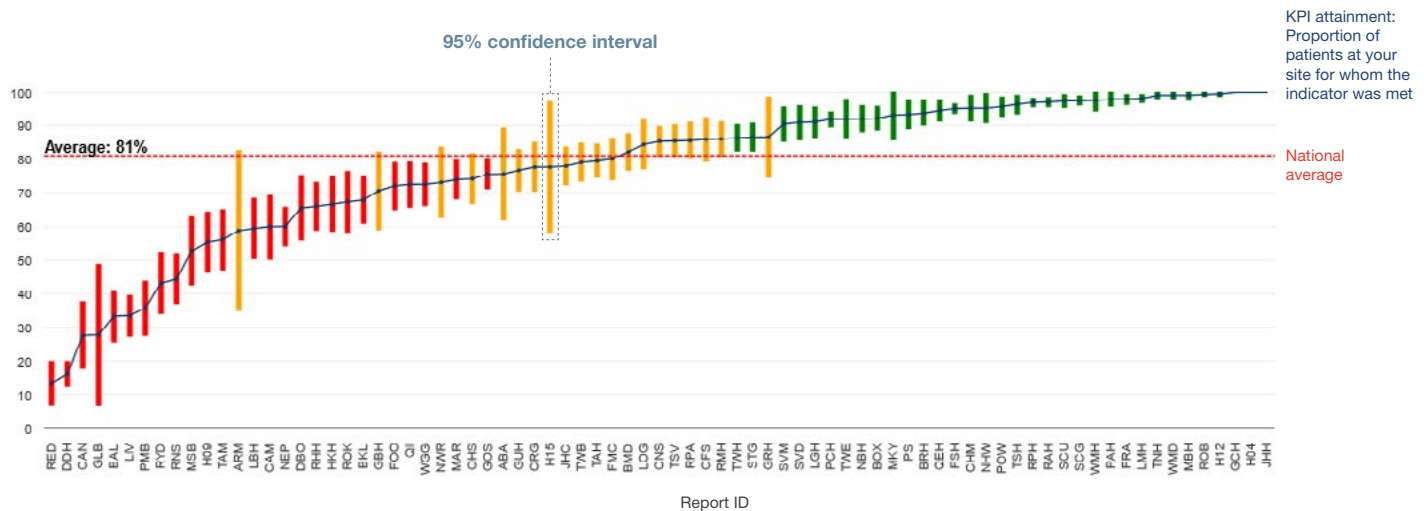
1. The national average (red dotted line) and individual performance (dark blue dot) for participating hospitals.
2. The 95% confidence interval calculated for each hospital based on the variation of data they have submitted

There is a labelled example on the right.

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 <https://www.hipfracture.com.au/home/reports>

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

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

	REPORT ID	2023
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

	REPORT ID	2023
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
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
QElI 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

	REPORT ID	2023
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.



This photo was taken at Joan's home, three weeks after her discharge from hospital

JOAN'S STORY

Joan is 94 and tripped in her kitchen, breaking her hip. She spent three weeks in hospital.

When talking about her care, Joan said "My operation was delayed but I'm glad my hip could be fixed".

She praised staff for their care and was pleased she was given treatment for osteoporosis. Despite her mother having osteoporosis, Joan did not think it would happen to her.

Four months down the track, Joan is frustrated that she is still using a walker. "My daughters insist" Joan said. She is having physiotherapy at home and doing her exercises. "I'm pleased to be back at my card and mahjong afternoons with friends".

I'm pleased to be back at my card and mahjong afternoons with friends.

HANS'S STORY

Hans is 98 years old. He is an Emeritus Professor of town planning and an engineer.

He recently published a journal article entitled Preparing for Fully Autonomous Vehicles in Australian Cities: Land-Use Planning—Adapting, Transforming, and Innovating, and was contributing in a workshop on this topic the day he fell and broke his hip. He continues to compose classical music and enjoys his ongoing involvement with the Queensland Symphony Orchestra.

Hans provides a unique glimpse into his experience of hip fracture care in an Australian hospital at various points of his journey.

What do you recall about being in the Emergency Department?

“Well, you wait. There was a problem with capacity. Not with staff. Both the ambulance people and the staff there were as helpful as could be. And when I got through the barrier, I got A-class service. There was a young doctor who went through everything in detail. There was test after test for a couple of hours. Extremely thorough. And every time, I was asked “Is that ok?”. He explained with a diagram to show what actually happened. Now that is top service”.

Is there any way you think things in Emergency could be improved for someone with a broken hip?

You have to find mechanisms that move the person in a way that doesn't cause stress...it happened about eight times – transferred from one bed to another and then the adjusting that needs to happen. It was agony. And then when I mentioned the bed pan, that was a mistake. I didn't know such archaic tools were still in use.

You didn't go to surgery as planned. You fasted for a bit but then did get lunch. How do you feel about that?

I understand there are priorities, so I can't complain about the choices they made. All I can say is that to keep a person of my age flat, waiting, can't move at all, not an inch because it hurts too much, for 36 hours...the problem leg is like lead. I have no control over it. Someone else has to move it for me. And despite all the painkillers, at times when I am resting, I have a sudden spasm. It is very painful.



I'd like to stress the importance of perseverance. You have to be bloody-minded about it. Otherwise, you are giving up. There are excellent people to help you.

Hans was in rehabilitation at the time this report was printed, with a plan for discharge home in the near future.





myHip myVoice

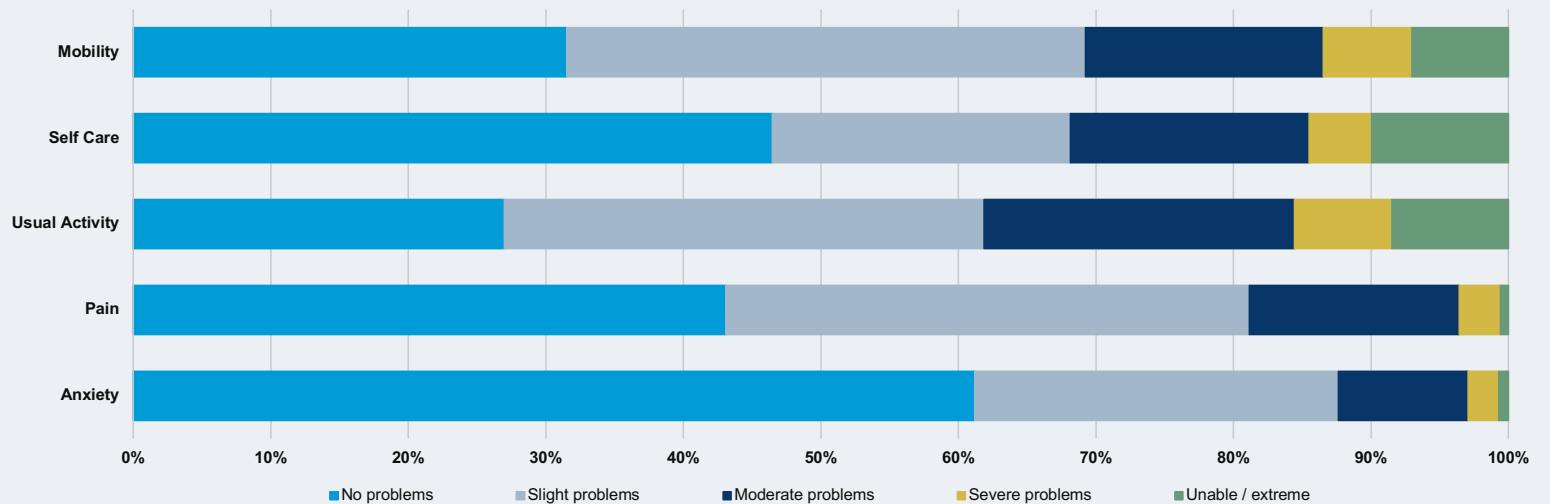
PATIENT REPORTED OUTCOMES

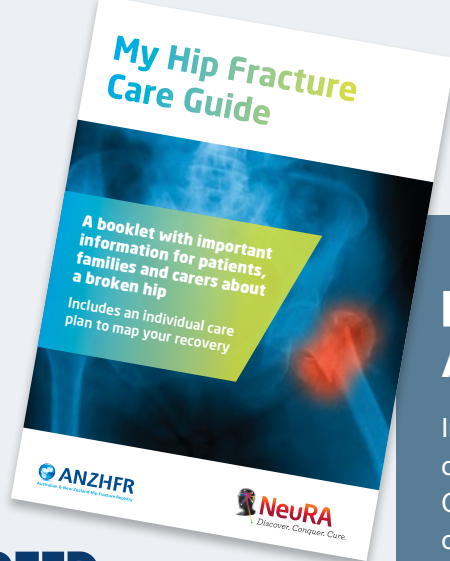
Where resources allow, hospitals follow-up patients via telephone 120-days after the date of admission for their hip fracture. The information sought includes where the person is living, their walking ability, whether they are on bone protection medication, whether they have had another hip operation since their hip fracture and a validated Patient Reported Outcome Measure, the EuroQol five-dimension five-level questionnaire (EQ-5D-5L).

The five dimensions are mobility, self-care, usual activities, pain/discomfort and anxiety/depression. Each dimension has 5 levels: no problems, slight problems, moderate problems, severe problems and extreme problems. In 2023, data on the EQ-5D-5L was available for 1168 people in Australia and New Zealand. A summary of their results is presented in Figure 1.

FIGURE 1

Patient-reported impairment using the EQ-5D-5L instrument at 120-days





PATIENT REPORTED EXPERIENCE

A Patient Reported Experience Measure (PREM) collects the views of consumers as an indirect measure of the quality of the care they receive. The results provide insights into what's important to the patient.

After a successful pilot project in 2022-23, all people who experience hip fracture care in an Australian hospital that contributes to the Registry are invited to provide feedback about their experience of hospital care.

This invitation is included as part of the My Hip Fracture Care Guide. Patients or carers can scan the QR code on the back of the care guide to complete 12 multiple choice questions. Answers are anonymous and will be used to improve care for people with a broken hip in the future. For more information on how to order the My Hip Fracture Care Guide, go to <https://anzhfr.org/resources/>.

The Registry plans to report PREMs in the coming years.

MEET NARELLE ANZHFR Consumer Engagement Lead

In line with our goal of involving more consumers in the work we do, we are delighted to welcome Narelle Payne into the role of Consumer Engagement Lead. Narelle is a long-standing member of the Registry team, who most recently worked on the two My Hip My Voice consumer-focused pilot projects.



"I am very excited to take on this new opportunity of Consumer Engagement Lead to continue to elevate the consumer voice. I look forward to working alongside the ANZHFR community as we strive towards a better understanding of what matters to older people after hip fracture."

CALL FOR CONSUMERS

DO YOU HAVE AN INTEREST IN IMPROVING THE HOSPITAL CARE FOR OLDER PEOPLE?

HAVE YOU OR A FAMILY MEMBER BROKEN THEIR HIP?

We want to involve more consumers in our work to:

- ✓ **Understand** what matters to older people
- ✓ **Work together** on projects
- ✓ **Listen** to your experience of hip fracture care

The ANZHFR has several ways that you can take part, depending upon your preferences.

If you would like to express your interest in participating and have one of our team members contact you, please scan the QR code



You can also simply contact us directly, via email myhipmyvoice@anzhfr.org or call Narelle Payne, ANZHFR Consumer Engagement Lead, on 93991072.

ANZHFR WARMLY WELCOMES NEW CONSUMER REPRESENTATIVES



Jebby

MY NAME IS JEBBY

My Mother's Day in 2022 got off to a bad start. On my usual morning walk, I failed to see a pothole as I crossed a road and my left foot caught the edge awkwardly.

The groceries I was carrying pulled me down and I hit the surface with a bang. After crawling to the grass verge, I realised the fall was very serious.

As a woman of 79, I understood how disastrous breaking a hip could be.

My care and recovery has been very good overall. I elected to wait for the "hip specialist" rather than the orthoped who was on call at the hospital when I went to the Emergency Department.

The surgery was on Tuesday and completely uneventful. The anaesthetist even cheerfully remarked "You're a bit young for this operation".

Once on a ward, I was up using one of those huge walkers and discharged within a few days. My operation was on Tuesday, and I was home on Friday.

I think it would have been helpful if the hospital had provided me with inpatient rehabilitation, especially since I live alone. Although a physiotherapist visited me once a week, I feel that more intensive rehab in an inpatient setting would have supported a quicker recovery.

I don't have any continuing problems from my new hip. The scar is quite minimal and the pain was well managed. I continue to walk every day, beginning with a pair of crutches, then moving to a walking stick and now mainly on my own.

I originally became a consumer representative for my local hospital after my husband had a serious medical incident; all ended well but I thought I had a different perspective on the Australian health system. And in this specific case, I would like to hope my experience may provide some useful information for anyone else who falls and breaks a hip.

MY NAME IS LORRAINE

I am 73 years old and now live the apartment lifestyle in Takapuna, Auckland. I have been married to Peter for 54 years, and have two sons and four grandchildren. I was the second woman to graduate as an optometrist through Auckland University in 1971. I have been fully involved in being a grandmother, and have been an active member of our local church. I love to read, walk, swim and travel.

On the 31 October 2023, I fell whilst taking a heavy bedding item off a laundry rack, and fractured my left hip. I had a full hip replacement two days later, and spent 10 days in North Shore Hospital. This has been a life changing event for me and Peter, and my recovery still has some way to go.

MY NAME IS PETER

I am 74 years old and reside with Lorraine, my wife of 54 years. We met as students at university, and were married whilst still students. I graduated with a Bachelor of Commerce Associate Chartered Accountant, and spent a few years in accounting work, but soon branched into management roles. In 1999 we formed our own wood products export / import business, which we sold at my retirement in 2016. Like Lorraine I have been a busy grandparent, member of our local church, and have built several homes to ensure I didn't get bored!

Lorraine's accident changed our lives, and we are still adjusting to our new realities. I am fully involved in her daily rehabilitation and care.

Lorraine
and Peter



HIP FRACTURE CARE CLINICAL CARE STANDARD

The Hip Fracture Care CCS was released in 2016 by the Australian Commission on Safety and Quality in Health Care, in collaboration with the Health Quality and Safety Commission New Zealand. The CCS plays an important role in ensuring the delivery of high-quality hip fracture care by describing the components of care that should be provided to older people admitted with a hip fracture.

The CCS was revised at the end of 2023, and includes important changes around cultural safety, multidisciplinary care, including frailty, delirium and nutrition care, and timing of surgery. The revised CCS can be downloaded at: safetyandquality.gov.au/hipfracture-ccs. Data reflecting the updated CCS will be included in the 2025 Annual Report.

This year, the ANZHFR continues to report against the 2016 Hip Fracture Care CCS, which contains seven quality statements and 16 indicators.

The next sections of this report show results from both the patient and facility level audits against the Hip Fracture Care CCS quality indicators. The quality statements and indicators enable quantitative measures of care processes, structures, or outcomes.

The ANZHFR continues to report on performance against each indicator, which can be used by clinicians or health service providers to identify areas of high-quality care, or areas that may require review.



QUALITY STATEMENT I: CARE AT PRESENTATION

A patient presenting to hospital with a suspected hip fracture receives care guided by timely assessment and management of medical conditions, including diagnostic imaging, pain assessment and cognitive assessment.



INDICATOR IA:

Evidence of local arrangements for the management of patients with hip fracture in the emergency department

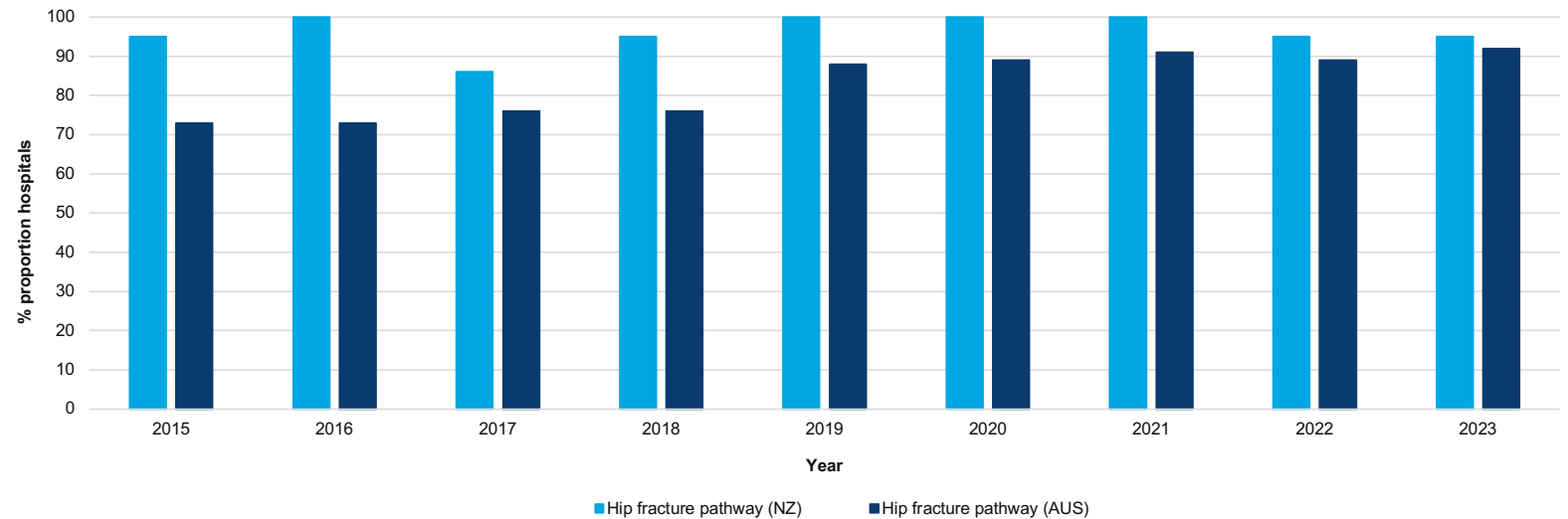
Figure 2 shows results from a facility level audit of hospitals contributing data to the ANZHFR. This is a change from previous years, when we asked all hospitals that operated on people after hip fracture to complete the audit. The results have been updated to reflect this change.

HIP FRACTURE PATHWAY

In 2023, 95% of participating New Zealand hospitals and 92% of participating Australian hospitals reported having a hip fracture pathway.

FIGURE 2

Hip fracture pathway as a reported element of hip fracture care in Australian and New Zealand participating hospitals 2015–2023



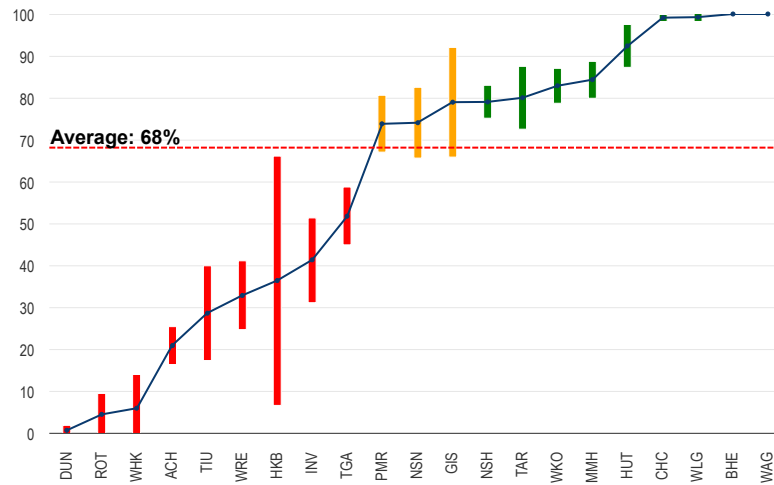
INDICATOR IB:

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



FIGURE 3

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

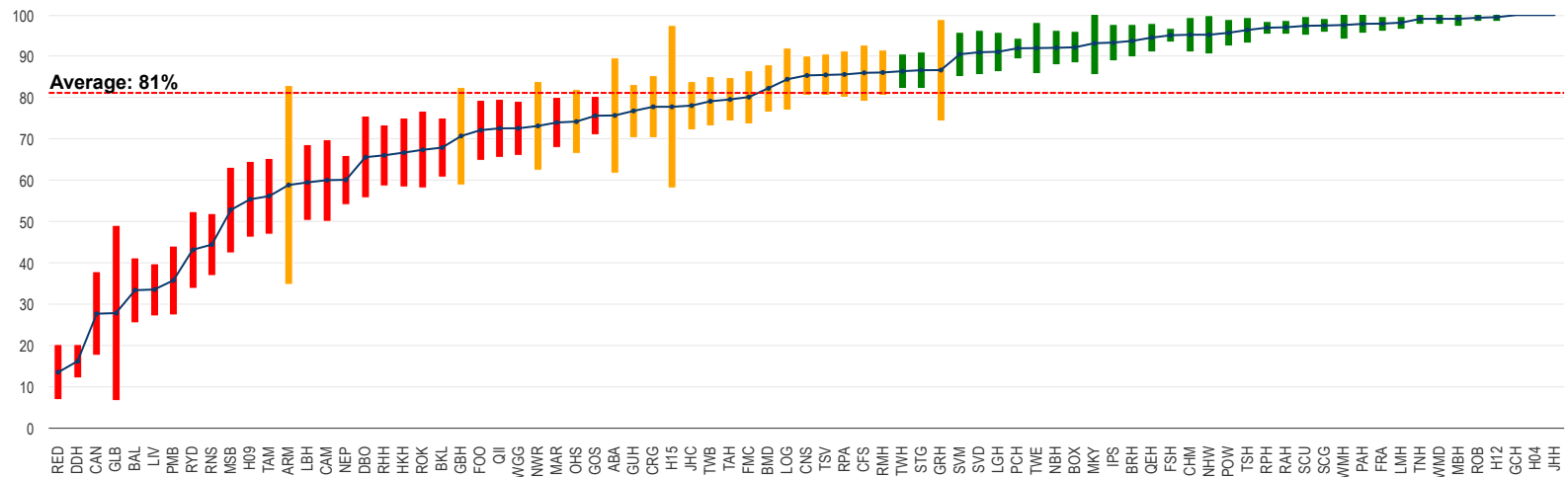


Since 2018, Australia and New Zealand have shown year-on-year increases in preoperative assessment of cognition in hip fracture patients.

Sixty-eight percent of hip fracture patients ≥ 65 years in New Zealand (Figure 3) and 81% in Australia (Figure 4) had their cognition assessed using a validated tool prior to surgery.

FIGURE 4

Preoperative cognitive assessment for people aged ≥ 65 years in Australia



COUNTIES MANUKAU FOCUSES ON IDENTIFYING DELIRIUM

Middlemore Hospital (Counties Manukau) has had an orthogeriatric model of care embedded within the orthopaedic service since 2000. On weekdays, a preoperative round is undertaken by the orthogeriatric team for patients aged 65 years and older.

A key part of the assessment undertaken on the round is gathering a history around a person's cognition before their hospital admission and their current cognitive function. The 4AT is used to screen for cognitive impairment and delirium. Delirium assessment is also integrated into eVitals for older adults at Counties Manukau, with the inclusion of the Confusion Assessment Method (CAM) in the standard nursing assessment.

Identifying, preventing and managing delirium is a critical part of the education provided to all new staff and an area of focus during our House Surgeon orientation undertaken at the beginning of each new term.

“ We are glad to see delirium screening included as a quality indicator in the updated CCS, as it is such an important part of providing high quality care and improving outcomes after hip fracture.



From left: Dr Sunita Paul (Geriatrician), Dr Hla Tha (Geriatrician), Siupolu Tavu (Clinical Nurse Specialist Orthogeriatric Service), Heather Robertson (Orthopaedic Service Manager)



QUALITY STATEMENT 2: PAIN MANAGEMENT

A patient with a hip fracture is assessed for pain at the time of presentation and regularly throughout their hospital stay, and receives pain management including the use of multimodal analgesia, if clinically appropriate.



INDICATOR 2A:

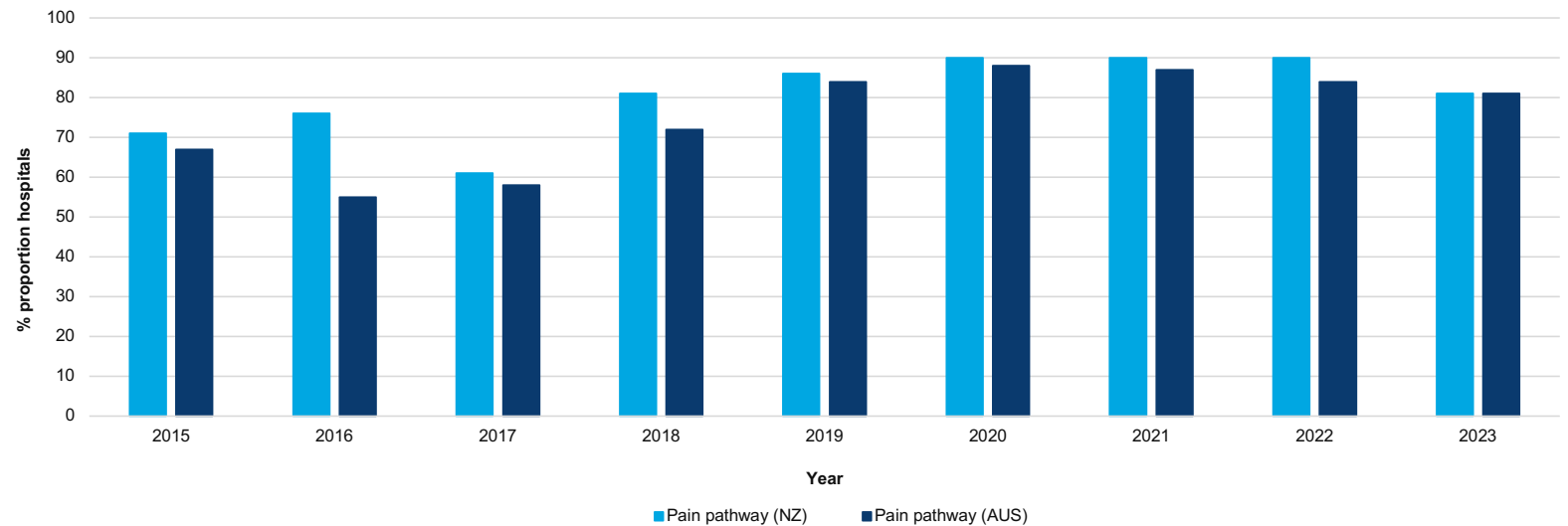
Evidence of local arrangements for timely and effective pain management for hip fracture

Figure 5 shows results from facility level audit of hospitals contributing data to the ANZHFR. This is a change from previous years, when we asked all hospitals that operated on people after hip fracture to complete the audit. The results have been updated to reflect this change.

In 2023, a protocol or pathway for pain was available at 81% of participating Australian and New Zealand hospitals.

FIGURE 5

Pain pathway reported as an element of care in Australia and New Zealand 2015-2023



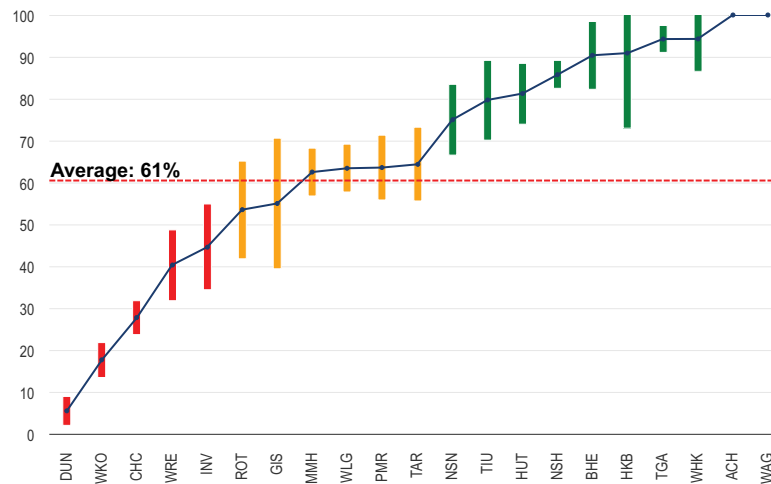
INDICATOR 2B:

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 6

Pain assessment within 30 minutes of ED presentation in New Zealand



On average, 61% of New Zealand hip fracture patients (Figure 6) and 69% of Australian hip fracture patients (Figure 7) had a documented assessment of pain within 30 minutes of presentation.

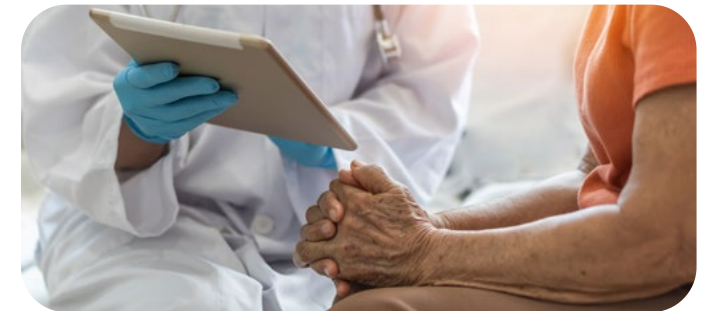


FIGURE 7

Pain assessment within 30 minutes of ED presentation in Australia

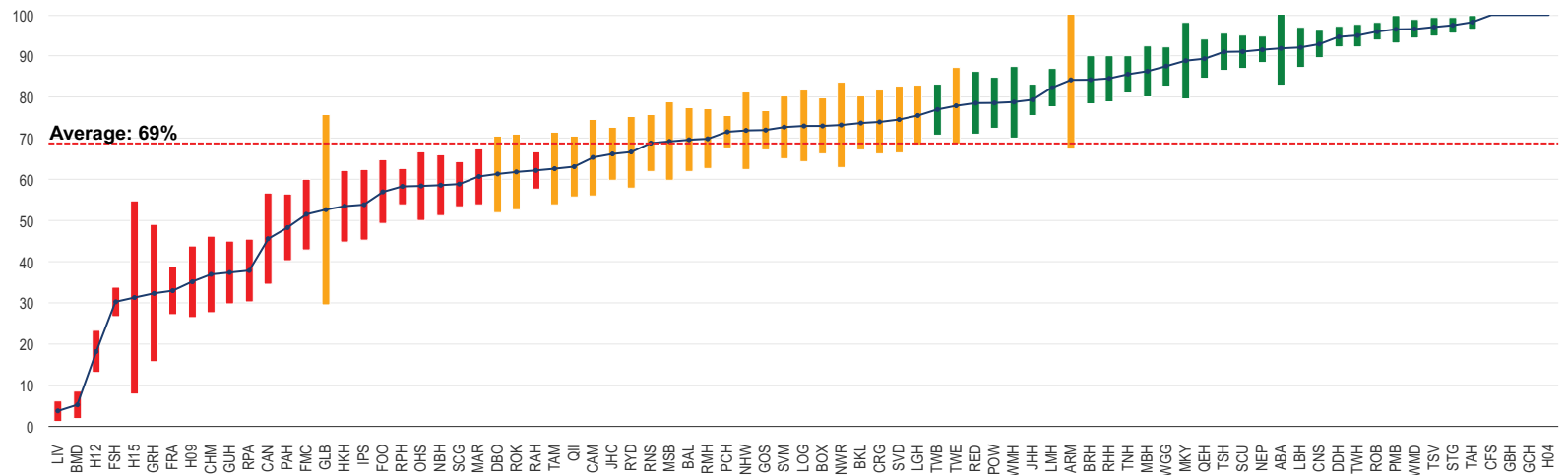
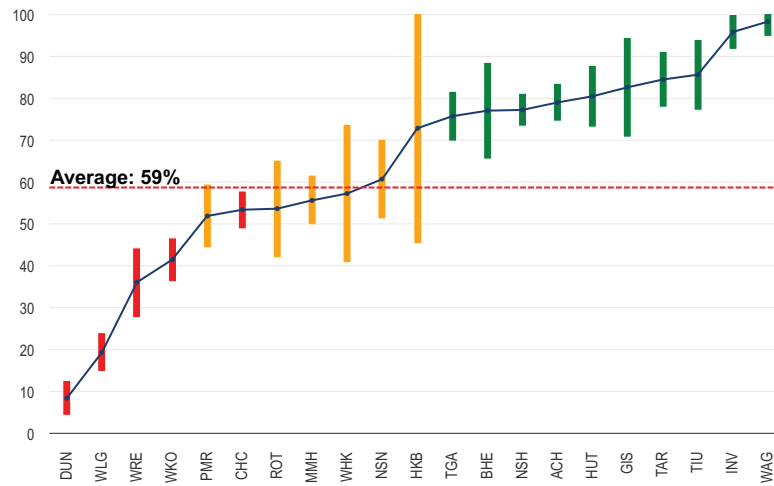




FIGURE 8

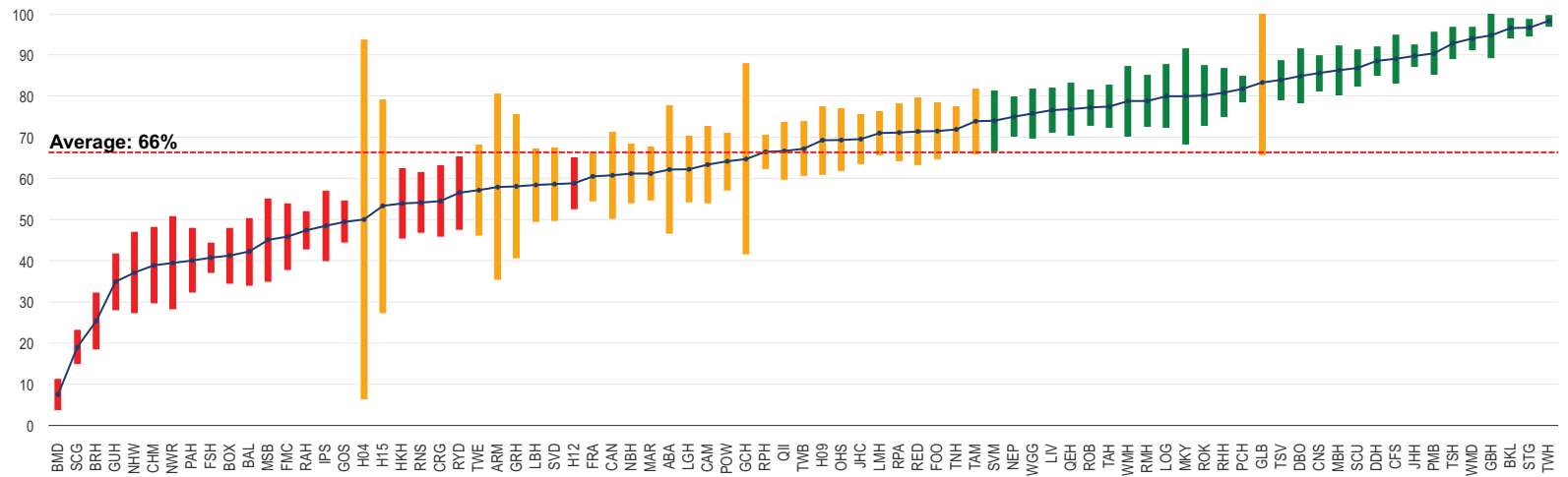
Pain management in the ED: New Zealand



Fifty-nine percent of hip fracture patients in New Zealand (Figure 8) and 66% in Australia (Figure 9) received analgesia either in transit (by paramedics) or within 30 minutes of arrival at the ED.

FIGURE 9

Pain management in the ED: Australia



NO BLOCKS TO NERVE BLOCKS AT TOOWOOMBA HOSPITAL

Toowoomba Hospital (TWB) is a regional hospital in Queensland. In 2023 the Toowoomba Hospital Emergency Department managed 189 patients presenting with a fractured neck of femur (NOF). This was a 27% increase in cases since 2020. In 2023, 94% of patients with a fractured NOF received a nerve block prior to arriving in the operating theatre for surgery. This percentage increased to 99.5% when including patients that have received a nerve block in the operating theatre. The Australian average for the proportion of patients receiving nerve block prior to theatre was 84% in 2023.

There are multiple system level protocols which have supported TWB to achieve a high proportion of nerve blocks, which ultimately optimises the outcomes and care of our patients. In our Emergency Department, we have a NOF pathway checklist with the key performance indicator being that patients arrive in the operating theatre within 36 hours of presentation. This checklist focuses on a multidisciplinary approach, including early referral to orthopaedics, investigation into the medical cause

of the fall, and discussion with the patient around their goals and wishes for care. It also mandates a regional nerve block unless contraindicated. Education plays a significant role in equipping our Emergency Department staff with the skills to provide timely nerve blocks. Our department provides in-person ultrasound procedure workshops, online modules, and bedside teaching under supervision. We have recently undertaken a fascia iliaca nerve catheter program to further upskill our staff (see photo inset).

TWB has been able to achieve exceptional nerve block rates through implementation of our NOF pathway, our ongoing commitment to clinical education, and our emphasis of a multidisciplinary approach. Whilst meeting Australia's national standard is important, we know that each individual benefits from having a timely nerve block.

Dr Patrick Gillespie (FACEM Toowoomba Hospital), and Dr Jason Nguyen (Emergency Registrar)



In 2023, 94% of patients with a fractured NOF received a nerve block prior to arriving in the operating theatre for surgery.

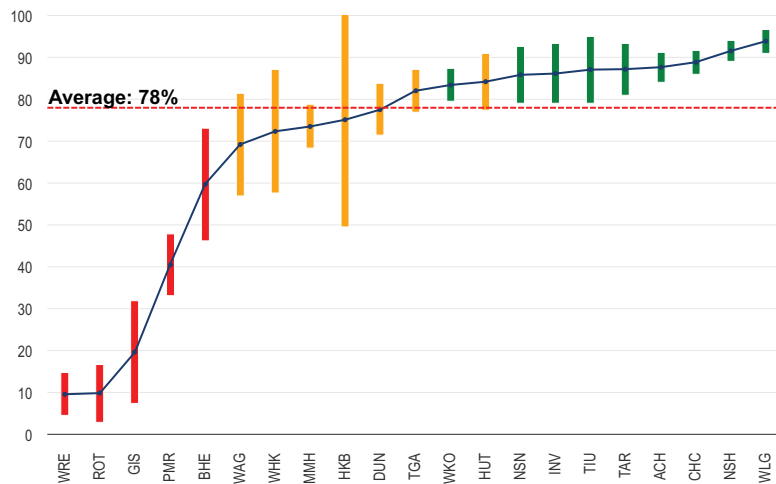


Consultant Rohani Oorloff providing education on regional catheter insertion to medical and nursing staff



FIGURE 10

Use of nerve blocks:
New Zealand

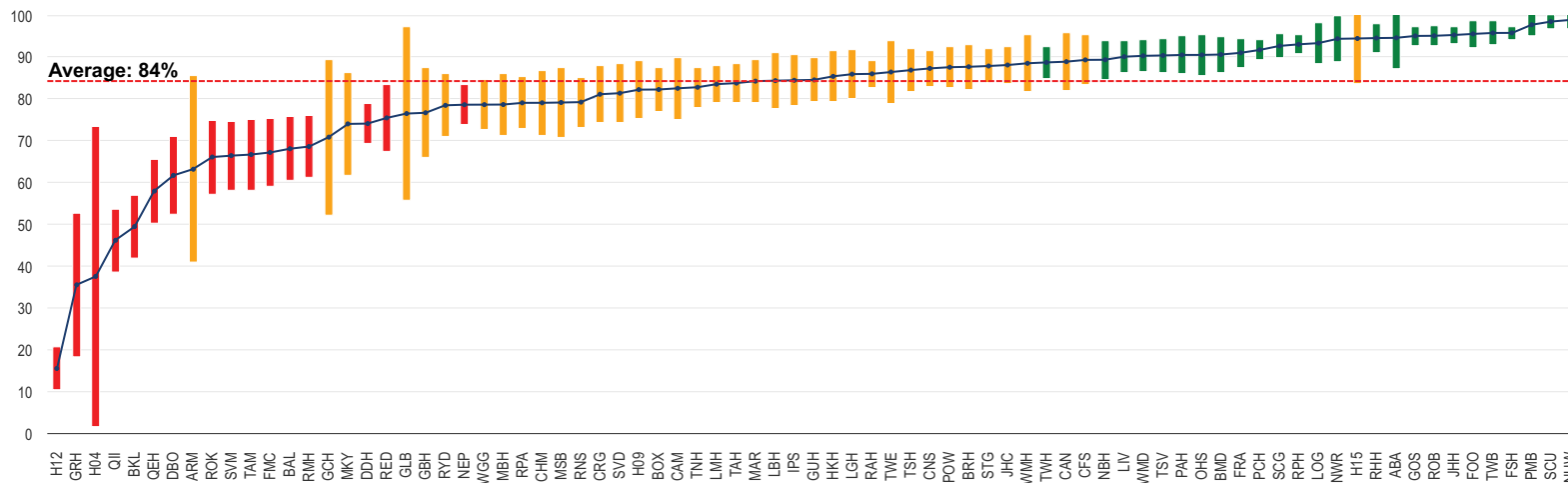


Seventy-eight percent of patients in New Zealand (Figure 10), and 84% of patients in Australia (Figure 11) received a nerve block before arriving in the operating theatre.

This represents a steady increase in both countries since 2015.

FIGURE 11

Use of nerve blocks:
Australia





QUALITY STATEMENT 3: ORTHOGERIATRIC MODEL OF CARE

A patient with a hip fracture is offered treatment based on an orthogeriatric model of care as defined in the Australian and New Zealand Guideline for Hip Fracture Care.

SHARING IS CARING: ROYAL DARWIN HOSPITAL WELCOMES ORTHOGERIATRIC SERVICE

Royal Darwin Hospital (RDH) is the only public hospital in Darwin and the only tertiary referral centre in the Northern Territory (NT). The NT covers a large area, and is sparsely populated with approximately 228,000 people, accounting for less than 1% of the Australian population. Aboriginal and Torres Strait Islander people represent approximately 31% of the NT's population. There are between 100–120 hip fractures managed at RDH each year, and the average age for a fractured hip at RDH is 73 years – 10 years younger than the rest of Australia.

In September 2017, a clinical pathway for patients with a hip fracture was implemented at RDH. At this time, there was one Staff Specialist geriatrician and one geriatric medicine Advanced Trainee in the NT, offering a consult service to the orthopaedic team.

The clinical pathway was developed with medical and nursing input from the Orthopaedic, Anaesthetic, Geriatric, General Medicine, and Emergency Departments, and representatives from patient flow.

The pathway includes;

- › Investigations to be performed in ED including appropriate analgesia and fascia iliaca block;
- › Nursing care plan including neurovascular observations, pressure area assessment and a prompt to perform cognitive assessment;
- › A CODE NOF page to the geriatric and anaesthetic teams to promote early review;
- › A phone call to the orthopaedic registrar;
- › CODE NOF page to the bed manager and orthopaedic ward nursing team leader to allow early transfer to the ward (before being seen by the orthopaedic team as long as the patient is stable in ED);
- › The geriatric medicine service is operational Monday-Friday 8am-5pm but the CODE NOF page allows the geriatric team to be alerted to NOFs who have presented overnight and over the weekend so they can be assessed preoperatively without delay.

Currently there are four consultant geriatricians, including one with a sub-speciality interest in orthogeriatrics, appointed in October 2022. The service has been developed as a consultant geriatrician-led liaison model, with strong focus on the outcomes measured in the ANZHFR. This development led to RDH being able to submit data to the ANZHFR for the first time in 2023.

Analysis of data pre and post an orthogeriatrician-led model shows a reduction in 30-day mortality from 9% to 3% and currently, the data from 2024 reflects a 30-day mortality of 0%.

There have also been significant improvements in the proportion of patients receiving osteoporosis treatment after a hip fracture from 11% at one-year post fracture to 47% having received treatment on discharge. We have started a weekly multidisciplinary meeting to facilitate timely discharge. Follow up is via geriatrics or endocrinology for younger patients. There are still more challenges to overcome regarding osteoporosis treatment, including reticence to start treatment prior to dental assessment which results in many patients, especially those from remote communities being unable to access treatment and the limited availability for DEXA scans, which are only available in Darwin.



We are proud of our achievements to date. We look forward to using the Registry to improve the care we provide and benchmark our performance against the rest of Australia!

Royal Darwin Hospital team members

Front row from left: Deborah Lee (Advanced Trainee), Ashleigh Reekie (Occupational Therapist), Nerissa Singh (Nurse Unit Manager) Back row: Alexia Riotta (Physiotherapist), Jessica Turner (Resident Medical Officer), Angeline Simons (Orthogeriatrician), Georgia Cunningham (Clinical Nurse Educator), Lucy Hamilton (Physiotherapist)

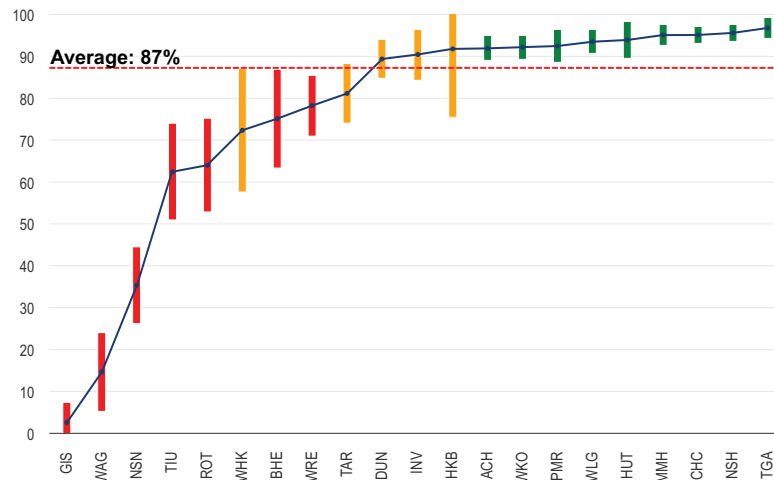


INDICATOR 3A:

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

FIGURE 12

Assessed by geriatric medicine during acute admission in New Zealand



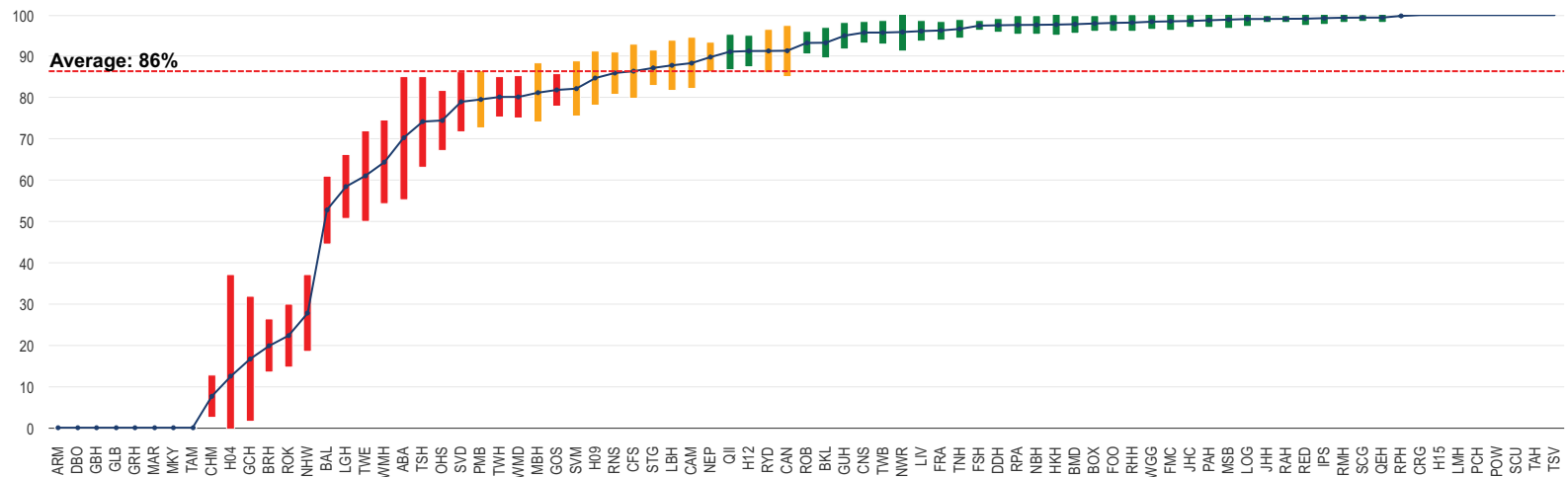
Early and ongoing orthogeriatric assessment is key to high-quality hip fracture care.

In New Zealand, 87% of hip fracture patients saw a geriatrician during their acute hospital stay (Figure 12).

Eighty-six percent of patients in Australia saw a geriatrician during their acute hospital stay (Figure 13).

FIGURE 13

Assessed by geriatric medicine during acute admission in Australia



SPOTLIGHT ON NUTRITION

Malnutrition is the costliest comorbidity in patients with hip fractures and the one most likely to prolong length of stay¹.

Malnutrition is strong predictor of 12-month mortality,² and it has been widely established that multidisciplinary, multimodal nutrition care can improve outcomes³.

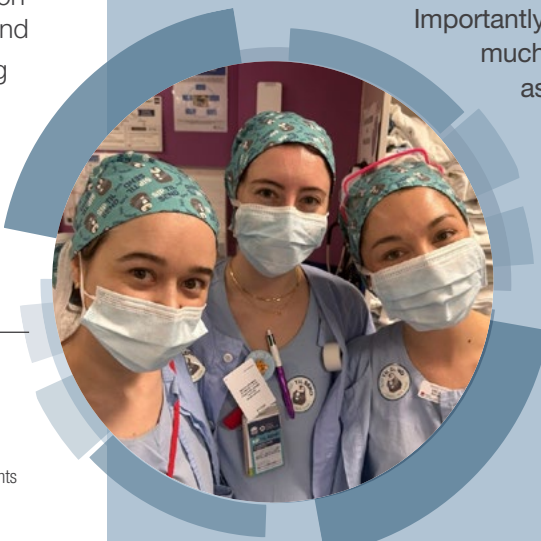
The revised Hip Fracture CCS includes a focus on nutrition as part of the orthogeriatric model of care. For clinicians, this means:

- Early assessment of the patient's nutritional status using a validated assessment tool;
- Re-assessment during the course of the admission with individualised interventions when required; and
- Offering oral nutritional supplements and avoiding prolonged nil-by-mouth restrictions.

1 Nikkel, L.E., et al., Impact of comorbidities on hospitalization costs following hip fracture. J Bone Joint Surg Am, 2012. 94(1): p. 9-17

2 Bell, J.J., et al., Impact of malnutrition on 12-month mortality following acute hip fracture. ANZ J Surg, 2016. 86(3): p. 157-61

3 Bell, J.J., et al., Multidisciplinary, multi-modal nutritional care in acute hip fracture inpatients – results of a pragmatic intervention. Clinical Nutrition, 2014. 33(6): p. 1101-7



SIP TIL SEND: PRINCE OF WALES HOSPITAL LEADS THE WAY TO REDUCE PREOPERATIVE FASTING

Prolonged and repeated fasting of people undergoing surgery is commonplace.

Despite guidelines saying two hours of fasting for clear fluids is acceptable, the reality is that people end up fasting for much longer periods. This was clearly demonstrated in the ANZHFR Sprint Audit on preoperative fasting.

In an attempt to address this issue, Sip Til Send was rolled out for all surgical patients at Prince of Wales Hospital (POW), Randwick on 4th July 2023. This means patients can now drink clear fluids (180 mls per hour) right up until they go to theatre. Implementation was preceded by a period of consultation, extensive education and an alteration to the Clinical Business Rule for fasting. Promotional material was available before and after the launch for patients and clinical staff to increase awareness of the change.

Auditing before and after the introduction of Sip Til Send demonstrated a significant reduction in clear fluid fasting times – 671 minutes down to 128 minutes.

Importantly, patients who had previously been fasted for a procedure reported a much better fasting experience with Sip Til Send. There have been no reported aspiration events one year down the track. Nursing staff in particular have reported satisfaction with Sip Til Send as it has taken the guesswork out of knowing when somebody will have their surgical procedure. Ongoing education of staff is still needed as staff rotate between and within hospitals.

To date, over 40 hospitals in ANZ have now adopted Sip Til Send. For more information and shared resources from the POW Sip Til Send journey, go to <https://anzhfr.org/resources/>.



TOP IMAGE: From left: Professor Jacqui Close (Orthogeriatrician), Dr Louisa Lowes (Anaesthetist) and Dr Philip Black (Anaesthetist)
LEFT IMAGE: Anaesthetic team members support the roll out of Sip Til Send at Prince of Wales Hospital



ROYAL ADELAIDE HOSPITAL CUTS PREOPERATIVE FLUID FASTING BY MORE THAN 7 HOURS

Royal Adelaide Hospital (RAH), Central Adelaide Local Health Network (CALHN) implemented a quality improvement project aimed to reduce fasting times by increasing staff knowledge on the evidence of fasting,



and implementing Sip Til Send, a new approach to preoperative fasting. Anita (Hip Fracture Nurse Practitioner) and Jenny (Hip Fracture Nurse Consultant), with the support and drive of the nursing lead Kristian, embraced the project given the particular benefit to older people who break their hip, and the hospital at large.

The validated change management process included audits, staff surveys, communications strategy, education plan, stakeholder engagement, change champions and a working party. Over 115 Sip Til Send champions and staff from different professions and clinical areas worked together to change 70 years of established practice.

Pre-implementation surveys and audits indicated that there were problems with preoperative fasting management, and that staff knowledge was limited. Since implementation of Sip Til Send one year ago, fluid fasting times have been reduced by an average of 7.5 hours, with nil adverse events reported.

This project adds evidence that large organisational change is possible when a structured model is used and that Sip Til Send can significantly reduce fasting times when senior nursing staff champion the merits of this type of clinical innovation to the broader team.

Post-implementation audits have determined a sustained change in practice.



SipTil Send champions at Royal Adelaide Hospital

ENJOY A HIP DIET: CHRISTCHURCH HOSPITAL'S RECIPE FOR HIGH QUALITY CARE

Christchurch Hospital is a busy trauma centre and has around 480 patients presenting with a hip fracture each year. The Dietetics department does not have the resources to routinely assess each patient although we know that the prevalence of malnutrition in older people who break their hip is high. To ensure that we can provide evidence-based nutrition management for our patients we have taken a systems approach.

The main implementation has been the development by the Dietetics department of a “HIP” diet which is provided for all patients who break their hip. This diet consists of high protein energy meals and two supplemental drinks each day – one for morning tea and one in the evening. This provides an additional 600kcal and 24g of protein. The process is that all patients with a hip fracture have their diet flagged as the “HIP” diet on a patient management system. This information is sent directly to the catering staff who deliver the meals and supplemental drinks. The nursing staff play a key role in encouraging patients to drink these and refer individual patients for dietitian review if there are concerns.

A malnutrition assessment is done by the Orthogeriatric team so that we can diagnose malnutrition and improve the documentation of this at the point of patient transfer.

We use the ICD-10 coding E46 for unspecified protein-energy malnutrition as this is a simple way of identifying the presence or absence of malnutrition using history and BMI and does not need a specialised dietitian assessment.



From left: Harry Mathwin (Orthopaedic Nurse), Sarah Hurring (Geriatrician) and Emma Cummack (Dietitian) from Christchurch Hospital



QUALITY STATEMENT 4: TIMING OF SURGERY

A patient presenting to hospital with a hip fracture, or sustaining a hip fracture while in hospital, receives surgery on the day of or the day after, where clinically indicated and surgery is preferred by the patient.

NEXT GEN: ANZHFR STEERING GROUP WELCOMES RAYMOND KIM, ORTHOPAEDIC TRAINEE REPRESENTATIVE

G'day everyone. My name is Raymond.

I am currently an orthopaedic trainee on the NSW Northside program of the Australian Orthopaedic Association and the registrar representative on the NSW regional training committee. I am delighted to be part of the ANZ Hip Fracture Registry Steering Committee as the orthopaedic trainee representative.

I obtained my undergraduate medical degree from The University of Newcastle and a Master of Surgery (Orthopaedics) at The University of Sydney. I completed my internship, residency and most of my basic orthopaedic training at Royal Prince Alfred Hospital in Sydney, also spending a year at John Hunter Hospital in Newcastle. During this time, I was fortunate to work with senior orthopaedic trainees (now consultants) who introduced me to hip fracture research. Part of my role as a co-researcher was to retrospectively analyse enormous volumes of intra- and post-operative x-rays, as well as medical records of patients who were treated for hip fractures.

Through this exercise, I became aware of the high volume of fractures that were occurring in the community, the nuances of operative fixation, the frailty of our older patients and the need to collaborate in a multidisciplinary team to optimise surgical outcomes and survival rates. I also observed that the data from the ANZ Hip Fracture Registry was stimulating healthy competition amongst the trans-Tasman hospitals to improve the quality of care provided to these patients. Notably, I came to appreciate that orthopaedic trainees such as myself could directly influence virtually all the quality indicators set out in the Hip Fracture Care CCS.

Orthopaedic trainees across Australia and New Zealand would be very familiar with the clinical significance of data-driven evidence and registry-nested studies, with manuscripts from our joint replacement registry being regularly published and cited. I view the data from the ANZ Hip Fracture Registry as a similarly important source of information which, when analysed appropriately, could have major clinical implications world-wide.

I look forward to working with my colleagues to continue to improve care, conducting further hip fracture research and contributing to further evidence that will achieve the best possible outcomes for older people after hip fracture.



Dr Raymond Kim,
orthopaedic trainee

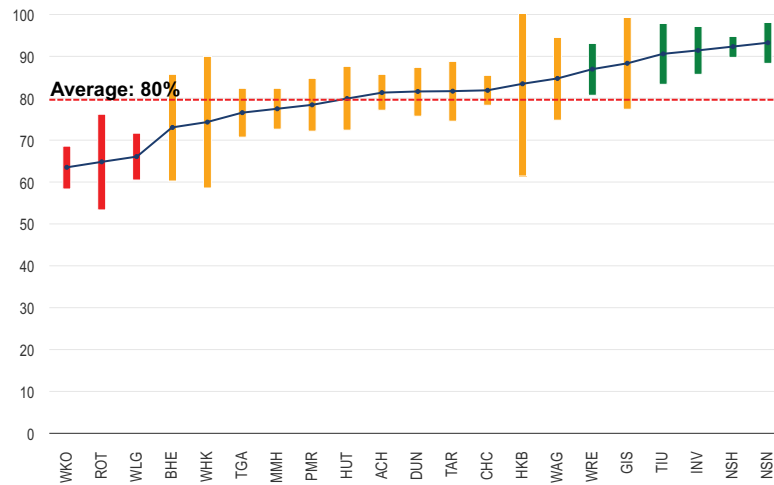
INDICATOR 4A:

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



FIGURE 14

Surgery within 48 hours:
New Zealand



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

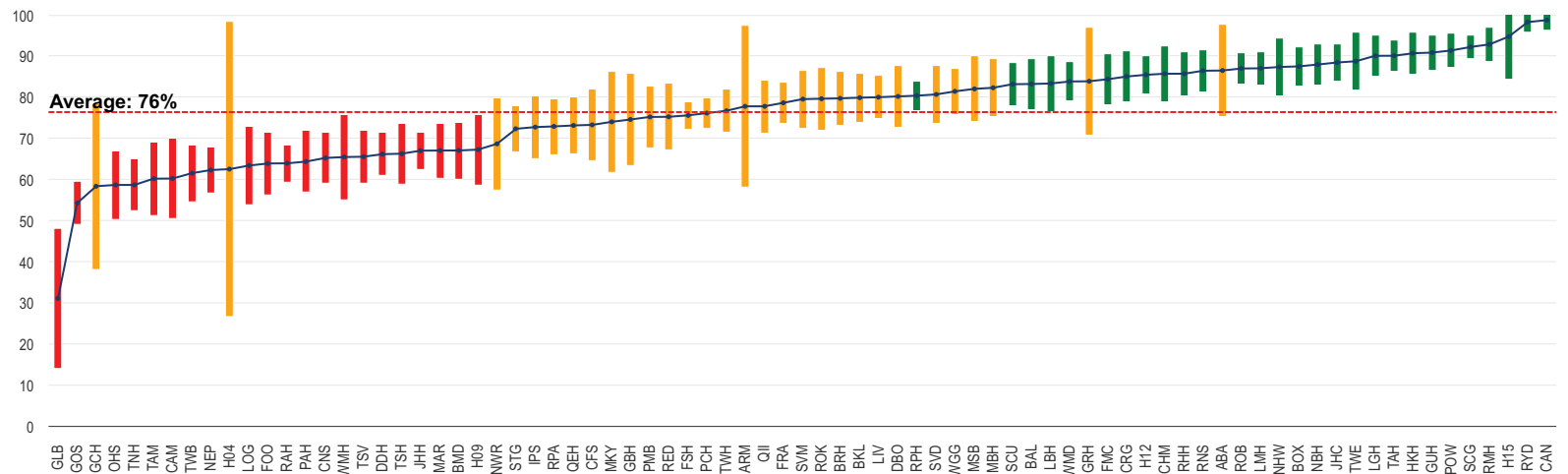
Eighty percent of patients in New Zealand (Figure 14) and 76% of patients in Australia (Figure 15) who underwent surgery were operated on within 48 hours of presentation to the first hospital. There has been little change in performance since 2015 and considerable variation between sites remains.

For non-transferred patients, the average time between presentation and surgery was 37 hours (median time to surgery 28 hours) in New Zealand and 39 hours (median time to surgery 30 hours) in Australia.

For transferred patients only, the average time between presentation and surgery was 44 hours (median time to surgery 41 hours) in New Zealand and 50 hours (median time to surgery 44 hours) in Australia.

FIGURE 15

Surgery within 48 hours:
Australia



FRANKSTON HOSPITAL: HOW A MORNING THEATRE HUDDLE CAN IMPROVE COMMUNICATION, EFFICIENCY AND PATIENT CARE

Frankston Hospital manages patients with hip fractures for the geographic catchment along the Mornington Peninsula, Victoria, caring for approximately 250–300 patients presenting with hip fractures annually. It is staffed by a large orthopaedic service, supported by the orthogeriatric service, which functions as a consult service within business hours. According to the 2022 ANZHFR data, the average time to surgery was 53.37hrs, with only 60% within 48 hours.

Until recently, there was no standardised process to easily identify which patients were still awaiting surgery. There was also no system in place to ensure clear communication between the orthopaedic team, theatre staff and the ward.

Traditionally, there has been a daily meeting on Monday–Friday, attended by the surgical ward nurse unit managers (NUMs), theatre NUM and operations directors of surgery & anaesthetics, as well as the operations director of theatre. In this meeting, patient admissions/discharges and those fasting were routinely discussed, however there was no specific discussion about patients awaiting hip fracture surgery.

From the 1st October 2023, this weekday meeting included specific mention of outstanding hip fracture patients. This ensures that the same patients fasting and awaiting theatre are known to both the theatre staff and ward staff. If a patient is not on the theatre list but the ward indicates they are fasting, the theatre NUM can liaise with the orthopaedic team to prioritise these patients. If it is not possible to complete the case within the session, timely communication is provided back to the ward to allow the patient to eat and drink.

This change in the model of care has been welcomed by all staff who participate in this weekday meeting. The simplicity of implementing this model of care has led to its sustained use, demonstrating that small, straightforward changes can have a lasting impact. Improved

communication between clinical disciplines has resulted in more timely access to surgery for patients, as well reducing prolonged periods of fasting for patients awaiting surgery. Additionally, this approach has given operations directors better visibility of the demands on emergency theatre spaces, allowing for better control and flexibility in theatre access by surgical specialties.

Entering patient data to the ANZHFR on a regular basis has also allowed us to monitor our performance in a real time manner, with evidence that since implementation of this change, there has been an overall reduction in the time to surgery to an average of 40.78hrs and a 19% increase in the proportion of patients having surgery within 48 hours. Further investigation of the impact of this change is the subject of research by an advanced trainee in geriatric medicine as part of their specialty training, with results expected by mid-2025.



We look forward to continue improving to meet the 36-hour challenge!



From left: Ian Young (Orthopaedic surgeon, Deputy Director of Surgical Services); Justin Aylward (Nurse Unit Manager, Orthopaedics); Jessica Manzoni (Geriatrician, Orthogeriatrics Clinical Lead); Peggy Vincent (Senior Physiotherapist), Angel Lee (Geriatrician, Orthogeriatrics Clinical Lead)



Figures 16 and 17 provide useful information for health services wishing to improve the proportion of patients treated within 48 hours as it highlights causes for surgical delay. The primary modifiable reasons for delay remain as access to theatres and patients deemed medically unfit.

FIGURE 16
Reason for delay longer than 48 hours: New Zealand

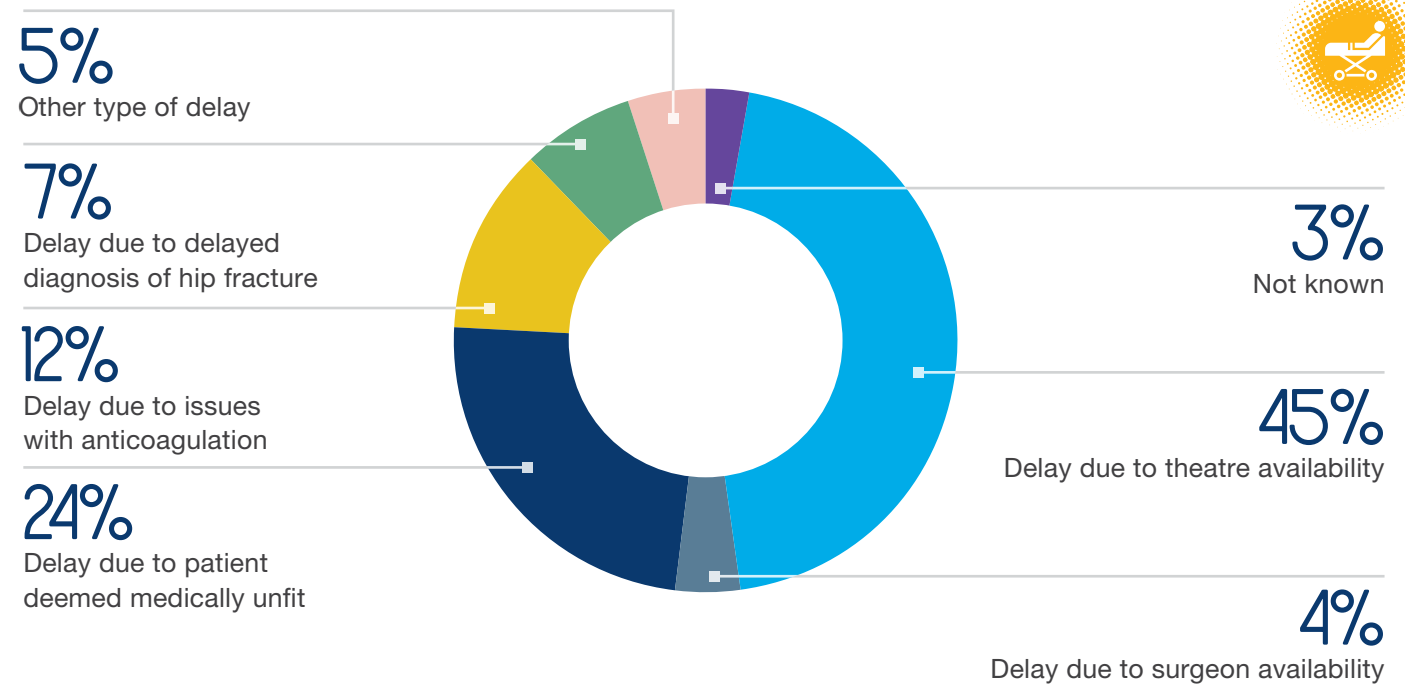
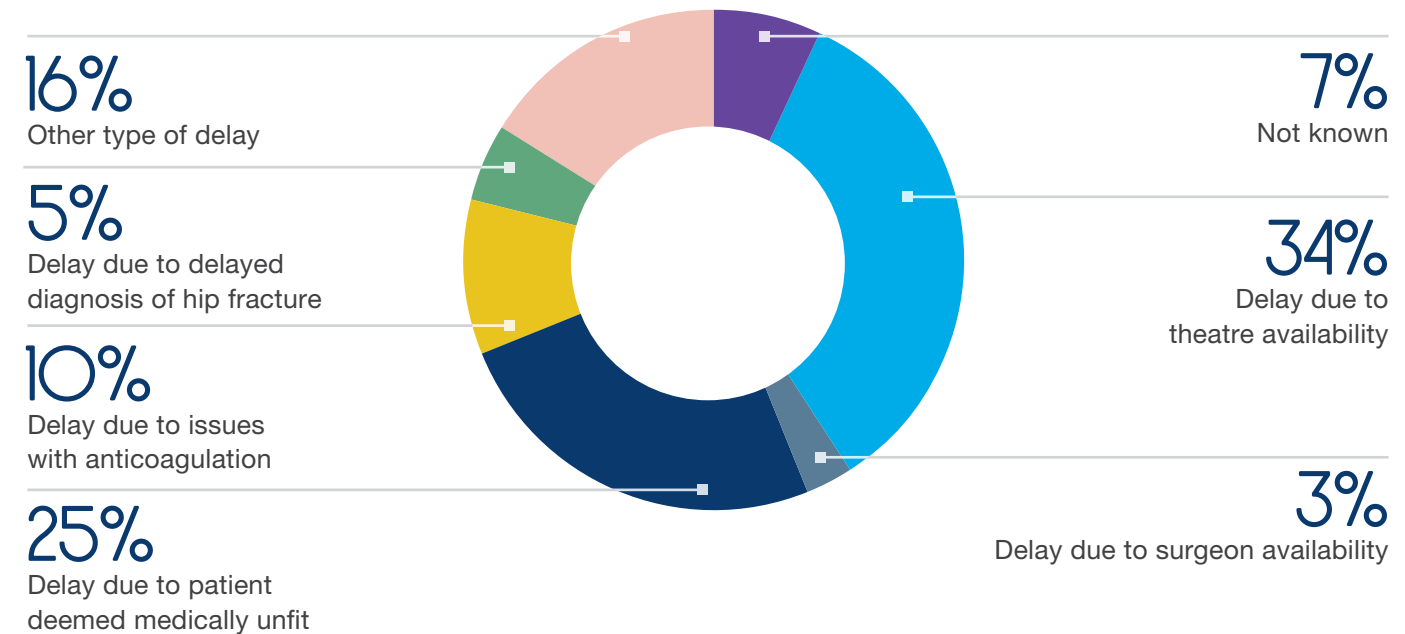


FIGURE 17
Reason for delay longer than 48 hours: Australia



WHEN TIME IS OF THE ESSENCE – PRINCIPLES FOR MANAGEMENT OF HIP FRACTURE FOR OLDER ADULTS TAKING DIRECT ORAL ANTICOAGULANTS (DOACS)

The ACSQHC Hip Fracture CCS from 2024 recommends surgery within 36 hours after admission for a hip fracture.

For some older adults taking anticoagulants, such as direct oral anticoagulants (DOACs), the timing of surgery to reduce intra- or post-operative blood loss, and/or to deliver safe regional anaesthesia, is an important consideration. However, the approach to managing patients with a hip fracture on DOACs was inconsistent across the globe.

To tackle this issue, a working group of the Fragility Fracture Network Hip Fracture Audit Special Interest Group, led by members of the ANZHFR Steering Group (Dr Hannah Seymour, Professor Rebecca Mitchell and Dr Seth Tarrant) embarked on the development of principles to aid clinicians in their decision-making and reduce practice variation in the management of patients with a hip fracture who are taking DOACs.

The literature and related clinical guidelines were reviewed and a two-round modified Delphi study was conducted with a panel of 111 experts from 16 countries across seven clinical specialities. The team also ran a workshop on DOACs and hip fracture care as part of the 11th Fragility Fracture Network Global Congress in Oslo, Norway in October 2023.

Four consensus statements were developed, with the paper published in the highly regarded journal *Anaesthesia*.


RECOMMENDATIONS⁴

1. Peripheral nerve blocks can reasonably be performed on presentation for patients with hip fracture who are receiving DOACs.
2. Hip fracture surgery can reasonably be performed for patients who were taking DOACs within 36 h from last dose.
3. General anaesthesia could reasonably be administered for hip fracture surgery in patients who were taking DOACs < 36 h from last dose (assuming 'normal' renal function, i.e. eGFR > 60 ml.min⁻¹.1.73 m⁻²). Around two thirds of panellists also agreed that general anaesthesia could reasonably be administered < 24 h from last DOAC dose (based on moderate consensus).
4. It is generally reasonable to consider recommencing DOACs (considering blood loss and haemoglobin) within 48 h of hip fracture surgery.



Tune into Hipcast, the podcast to improve hip fracture care, to hear Dr Seymour and Prof Mitchell discuss the development of the management principles: <https://hipcast.buzzsprout.com/>

Following on from the publication of the management principles, the ANZHFR has undertaken a Sprint Audit in 2024 to identify differences in clinical practice for patients preoperatively taking DOACs across Australia and New Zealand. The Sprint Audit will serve to inform local and system-wide care enhancement initiatives. The ANZHFR thanks the sites who participated and looks forward to sharing the audit results.

 From left: ANZHFR Steering Group members Dr Seth Tarrant, Professor Rebecca Mitchell, Dr Hannah Seymour, together with Dr Amy Mayor and A/Professor Flavia Borges, delivered a DOAC workshop at the FFN Global Congress in Oslo, Norway in October 2023



Access the publication via the QR code

4 Mitchell RJ, Wijekulasuriya S, Mayor A, Borges FK, Tonelli AC, Ahn J, Seymour H; Fragility Fracture Network Hip Fracture Audit Special Interest Group. Principles for management of hip fracture for older adults taking direct oral anticoagulants: an international consensus statement. *Anaesthesia*. 2024 Jun;79(6):627-637. doi: 10.1111/anae.16226. Epub 2024 Feb 6. PMID: 38319797.



QUALITY STATEMENT 5: MOBILISATION AND WEIGHT BEARING

A patient with a hip fracture is offered mobilisation without restrictions on weight bearing the day after surgery and at least once a day thereafter, depending on the patient's clinical condition and agreed goals of care.

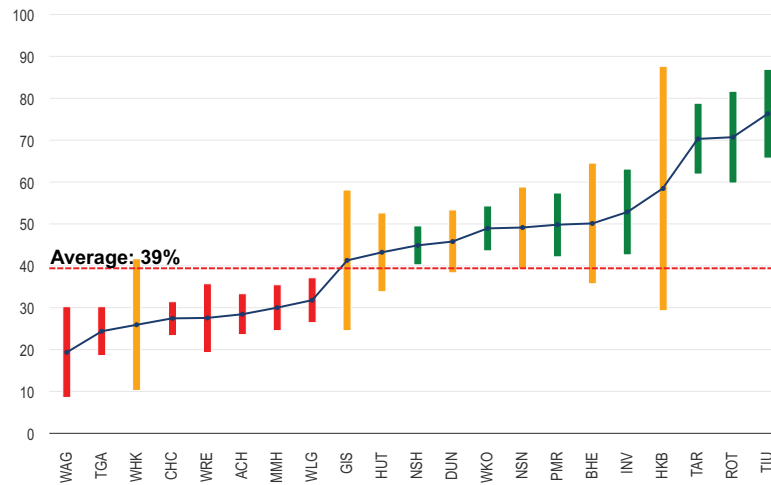


INDICATOR 5A:

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

FIGURE 18

First day walking;
New Zealand

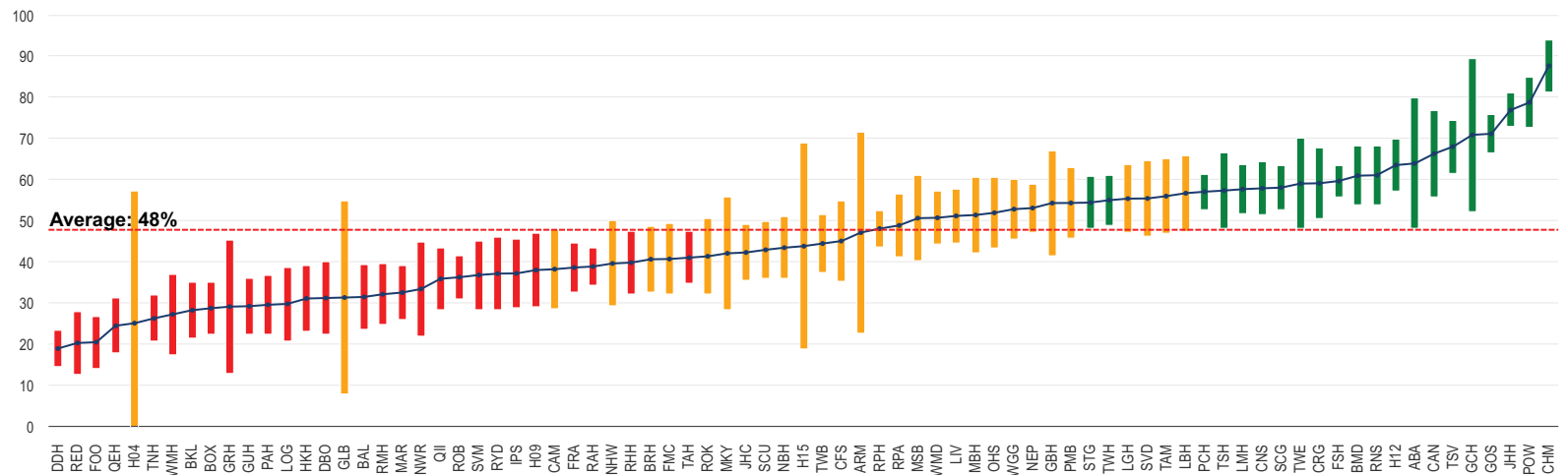


Thirty-nine percent of patients in New Zealand (Figure 18) and 48% of patients in Australia (Figure 19) achieved first day walking.

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 19

First day walking;
Australia



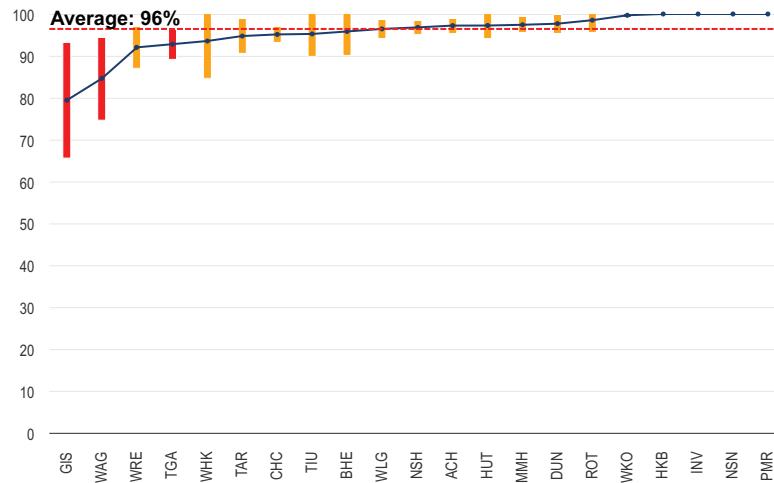
INDICATOR 5B:

Proportion of patients with a hip fracture with unrestricted weight bearing status immediately post hip fracture surgery



FIGURE 20

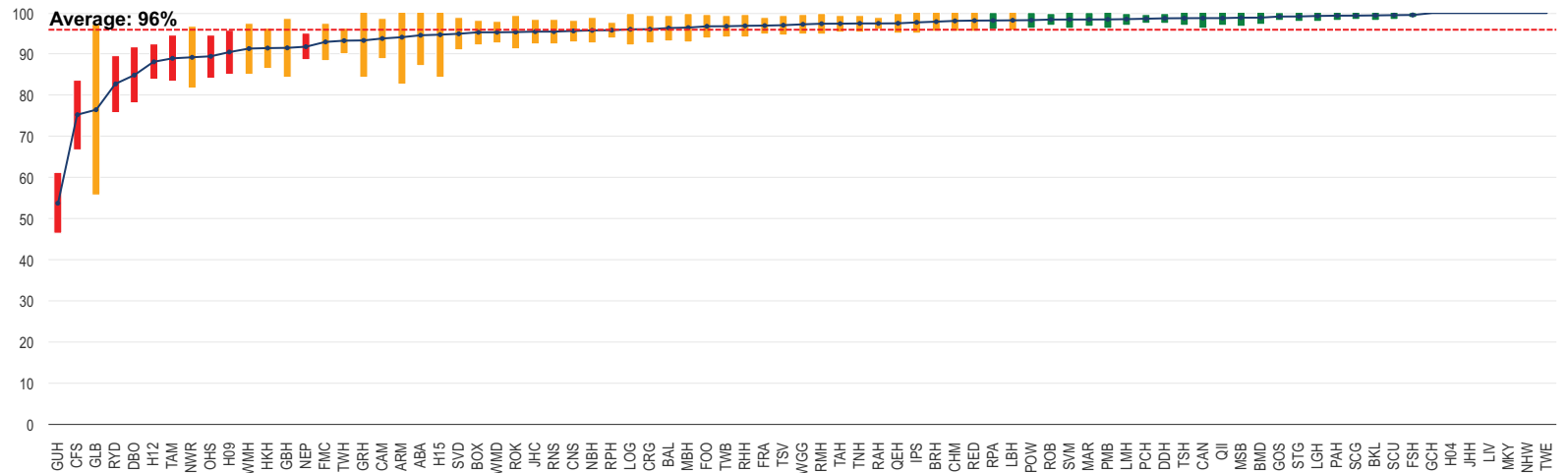
Weight bearing status after surgery: New Zealand



Allowing immediate unrestricted weight bearing after surgery supports early rehabilitation and functional recovery. Figures 20 and 21 show that 96% of patients in New Zealand and Australia were permitted to weight bear without restriction after surgery. Some variation between hospitals remains evident.

FIGURE 21

Weight bearing status after surgery: Australia



LAUNCESTON PHYSIOTHERAPISTS HIT THEIR STRIDE WITH EARLY MOBILITY

Improving care for people with a hip fracture, through evaluation of performance against the Hip Fracture Clinical Care Standard has been a focus of the Launceston General Hospital (LGH) in Tasmania. The team are proud that their efforts have shown a 22% improvement in the proportion of patients getting up and walking the day after surgery between 2022 and 2023. Evidence shows an increase in the physical activity for these patients – even taking just one step – improves recovery.

The leading factors behind the improvement have been a change in the physiotherapy service model for hip fracture patients and an increased focus on evidence-based, high value intervention across the multidisciplinary surgical care team.

In 2022, the hospital moved to a team of senior surgical physiotherapists working shifts across seven days. Weekend coverage of the general, orthopaedic, and short stay surgical units, covering 87 beds, now includes at least two senior physiotherapists, a senior occupational therapist and an allied health assistant. This means no matter when the patient has their surgery, there is a team ready to help on day one. The inclusion of an allied health assistant on the weekend means physiotherapists aren't relying on their busy nursing colleagues to help with getting patients out of bed.

Coupled with the roster changes, there has been enhanced education to the physiotherapy team, with more teaching sessions and the inclusion of the quality indicators for hip fracture care as a regular item on surgical physiotherapy meeting agendas.

Surgical team members were encouraged and supported to attend the ANZHFR Hipfest.

Earlier work at LGH developing pathways for the acute management of fractured NOFs in Emergency Medicine has seen a positive move away from slow release opioids towards more patients receiving a regional nerve block. Despite these changes, audit results for first day walking remained between 33% and 38% of patients walking on day one. The physiotherapy team frequently discussed the barriers to achieving first day walking and brainstormed strategies to improve. Understanding the definition used by the registry, including the requirement that the patient step transfers at a minimum, prompted the team to only utilise a sit to stand transfer aid, if a gait aid such as a forearm support frame had been unsuccessful. Understanding the evidence from Lara Kimmel's HIP4Hips trial⁵ ensured a higher priority was allocated to second and third review sessions in the first few postoperative days.

A clinical audit by senior surgical physiotherapist Renee Thong, showed barriers to achieving first day

walking included postoperative delirium, low blood pressure and poorly controlled pain. The team believe that having a strong senior clinician presence on the surgical wards has been a key driver in improvement, as they have the knowledge and skills to assist frail, unwell patients to achieve the maximum safe activity levels.

The occupational therapy team have prioritised pre- and postoperative patient reviews aiming to help patients understand the benefits of pain management, early mobility, routine, and activity participation. Their role includes identifying patients who are in, or at a high risk of, delirium and implementing allied health assistant programs to help manage and reduce this complication.

Clinical Lead Physiotherapist – Surgery, Sarah Turner, said the small changes put the issues at the forefront of everyone's daily practise. "Improving early ambulation was a goal of our physiotherapy team. A lot of the change has come from a better awareness around the long-term influence on patient outcomes" she said.

5 Kimmel LA, Liew SM, Sayer JM, Holland AE. HIP4Hips (High Intensity Physiotherapy for Hip fractures in the acute hospital setting): a randomised controlled trial. Med J Aust. 2016 Jul 18;205(2):73-8. doi: 10.5694/mja16.00091. PMID: 27456448.



Going forward, the team hope to sustain the positive changes and continue to improve through ongoing prioritisation of high value physiotherapy care and commitment to team education.



From left: Sarah Turner (Clinical Lead Physiotherapist, Surgery); Renee Thong (Senior Physiotherapist, Surgery); Karen Boxall (Allied Health Assistant); Jen Lyons (Nurse Unit Manager, Surgical ward); Jeremy Tuson (Senior Physiotherapist, Surgery)



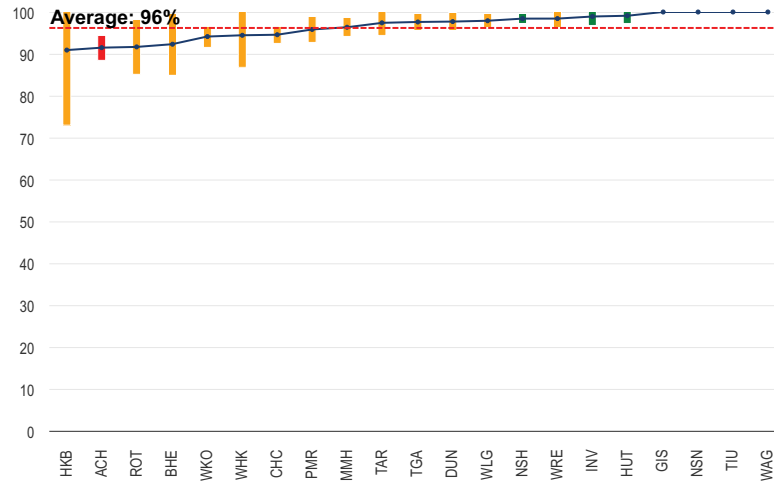


INDICATOR 5C:

Proportion of patients with a hip fracture experiencing a new Stage II or higher pressure injury during their hospital stay

FIGURE 22

No hospital acquired pressure injuries of the skin: New Zealand

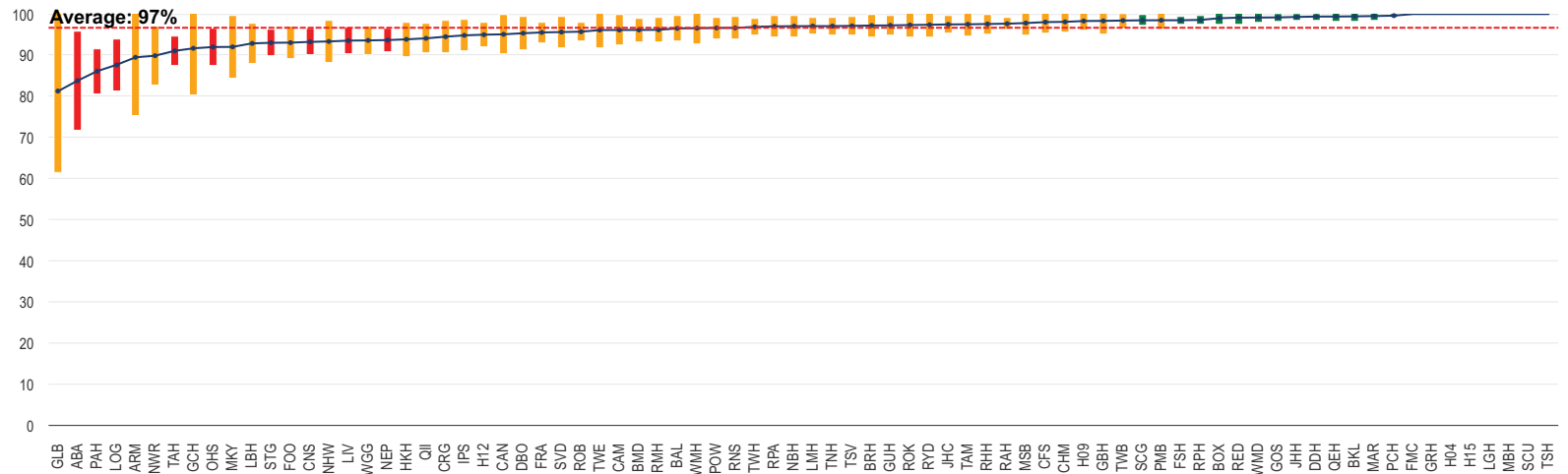


A pressure injury of the skin is a potentially preventable complication of hip fracture care. It is associated with delayed functional recovery and an increased length of stay.

Four percent of patients in New Zealand (Figure 22) and 3% of patients in Australia (Figure 23) were documented as acquiring a pressure injury of the skin during their acute hospital stay.

FIGURE 23

No hospital acquired pressure injuries of the skin: Australia



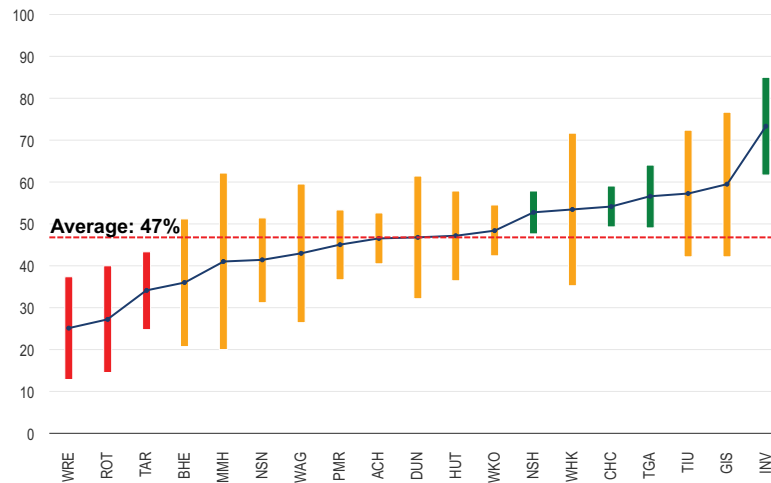
INDICATOR 5D:

Proportion of patients with a hip fracture returning to pre-fracture mobility



FIGURE 24

Return to pre-fracture mobility at 120 days: New Zealand



Return to pre-fracture mobility, a measure of functional recovery as reported by the patient, is captured as part of 120-day follow-up at sites where 120-day follow-up occurs.

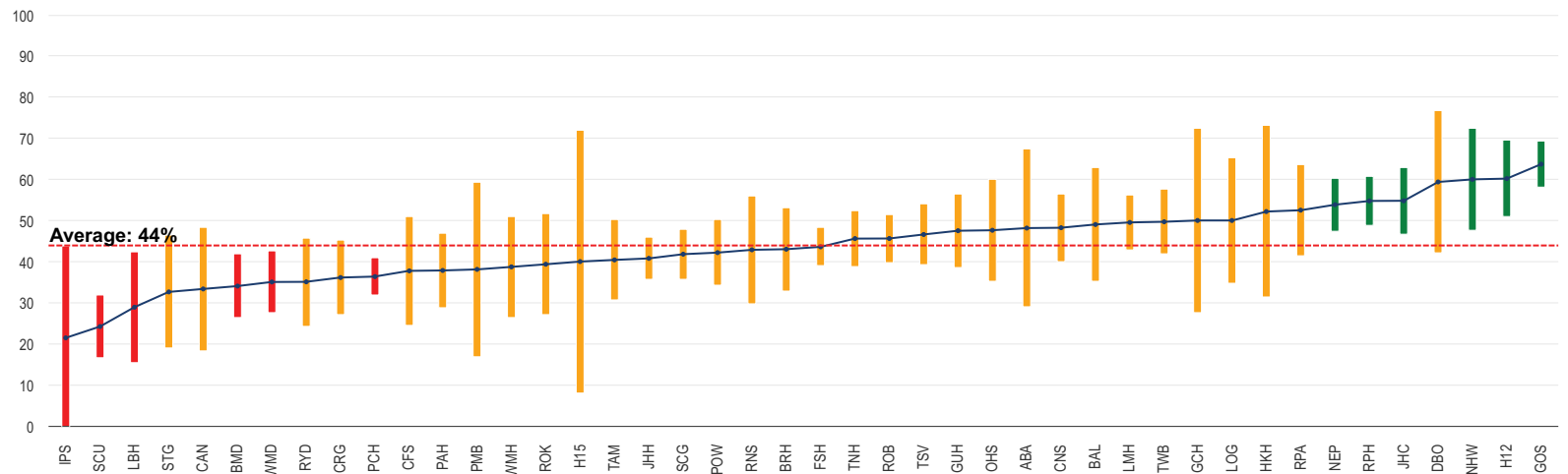
Follow-up is completed by staff at the treating hospital via telephone. In New Zealand, 82% of patient records had data for 120 days. In Australia, 56% of patient records had data for 120 days.

This chart includes sites that had data for at least 70% of their patients. Sites missing data for more than 30% of their patients have not been included in the caterpillar chart. Further information around completion of patient follow-up at 120-days is available in the supplementary e-Report.

Forty-seven percent of patients in New Zealand (Figure 24) and 44% of patients in Australia (Figure 25) reported a return to their pre-fracture mobility at 120 days.

FIGURE 25

Return to pre-fracture mobility at 120 days: Australia





QUALITY STATEMENT 6: MINIMISING THE RISK OF ANOTHER FRACTURE

Before a patient with a hip fracture leaves hospital, they are offered a falls and bone health assessment, and a management plan based on this assessment to reduce the risk of another fracture.

OSTEOPOROSIS TREATMENT SOARS AT WAGGA WAGGA BASE HOSPITAL

Following the release of the 2022 ANZHFR annual report we were struck by the low number of patients discharged on bone protection medications binationally, particularly antiresorptive medications which have good evidence in treating osteoporosis. The statistics had not improved significantly over the years in either Australia or New Zealand. We decided to identify where barriers to starting bone protection medications existed to improve our uptake of these medications.

We identified that Vitamin D results often took several days to come back and that when patients were found to be deficient there was often insufficient time to supplement their vitamin D before discharge from hospital resulting in them missing out on antiresorptive medications.

In consultation with colleagues in ED and orthopaedics we highlighted the importance of checking Vitamin D levels for all patients with hip fractures on admission. We also met with colleagues from pharmacy who helped us to access high dose 50,000-unit vitamin D supplements which allowed more rapid supplementation of vitamin D for those patients found to be deficient. These changes allowed us to offer antiresorptive medications to more patients improving their uptake and hopefully lessening the risk of future fractures.



We are proud to have improved the proportion of patients leaving hospital on bone protection medication by 28%, with 84% of hip fracture patients leaving hospital on treatment in 2023.



From left: Corrine Crockatt (Orthopaedic Clinical Nurse Consultant), Bree Gardoll (Senior Resident Medical Officer), Andrew Clout (Orthopaedic Surgeon), Matthew Thompson (Geriatrician)

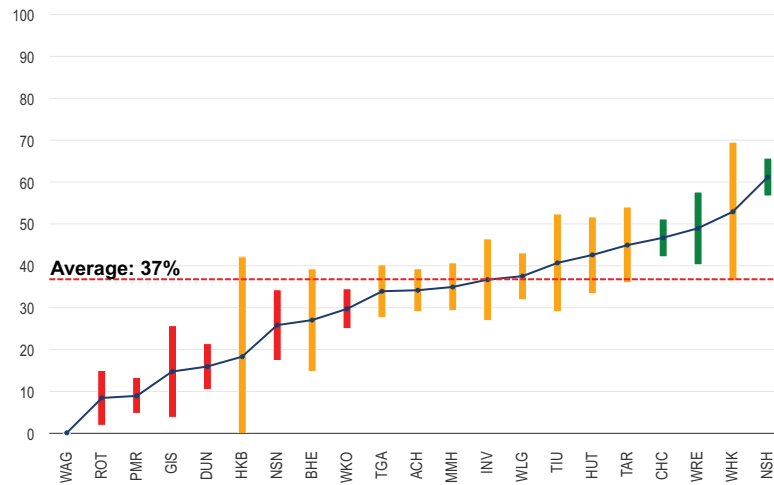


INDICATOR 6A:

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 26

Bone protection medication on discharge: New Zealand



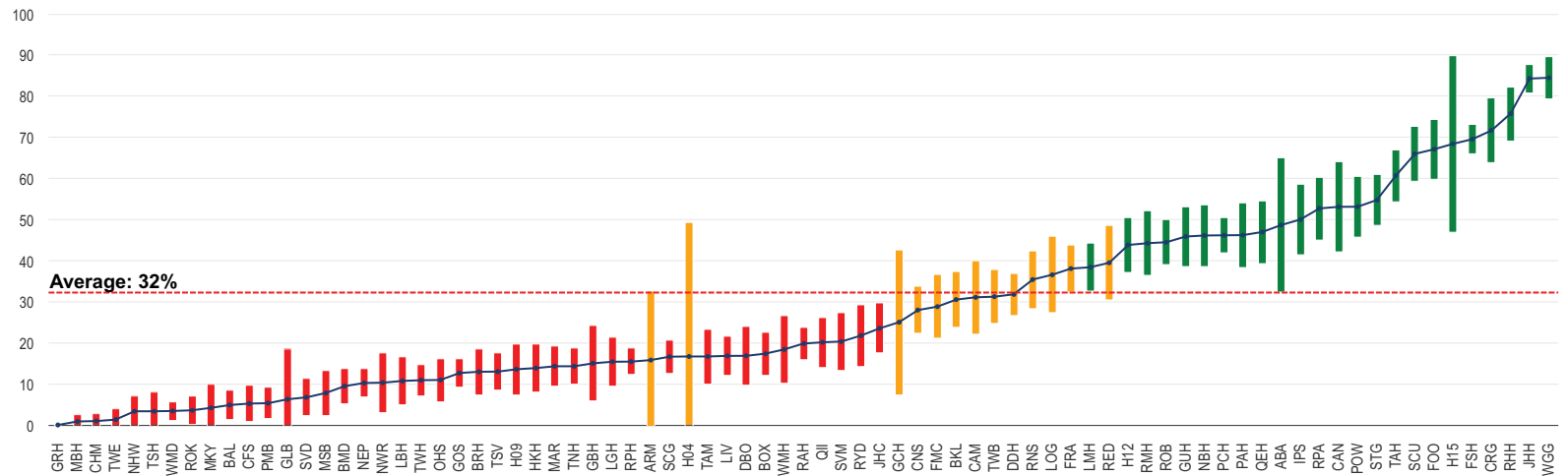
There continues to be a gradual improvement in the proportion of people leaving hospital on a bisphosphonate, denosumab or teriparatide from 2015.

In New Zealand, 37% of hip fracture patients left hospital on bone protection medicine (Figure 26), compared with 11% on admission.

In Australia, 32% of patients left hospital on a bisphosphonate, denosumab or teriparatide (Figure 27), compared with 13% on admission.

FIGURE 27

Bone protection medication on discharge: Australia





QUALITY STATEMENT 7: TRANSITION FROM HOSPITAL CARE

Before a patient leaves hospital, the patient and their carer are involved in the development of an individualised care plan that describes the patient's ongoing care and goals of care after they leave hospital. The plan is developed collaboratively with the patient's general practitioner. The plan identifies any changes in medicines, any new medicines, and equipment and contact details for rehabilitation services they may require. It also describes mobilisation activities, wound care and function post-injury. This plan is provided to the patient before discharge and to their general practitioner and other ongoing clinical providers within 48 hours of discharge.

TEAMWORK MAKES THE DREAM WORK AT SIR CHARLES GAIRDNER HOSPITAL

At Sir Charles Gairdner Hospital (SCGH), our goal is to provide timely, high-quality care to our hip fracture patients, understanding that this is the most effective way to reduce perioperative morbidity and mortality in this frail, vulnerable patient cohort.

Although we employ a shared-care Model of Care, our collaboration extends well beyond the geriatric and orthopaedic teams. At SCGH, it is a concerted effort involving all teams involved in the patient's journey—emergency physicians, geriatricians, anaesthetists, the acute pain service, orthopaedic surgeons, allied health professionals, and nursing staff—all working together to provide prompt clinical assessment, expedite surgery, and minimise postoperative complications.

Open communication, including direct consultant-to-consultant discussions, when necessary, ensures senior decisions are made promptly, avoiding any unnecessary delays in patient care. We are notified of potential hip fracture patients in the ED and aim for prompt preoperative geriatric assessment in ED. By collaborating closely with our anaesthetic and surgical colleagues, we rarely find a reason to delay surgery, allowing us to prioritise theatre lists accordingly and aim for surgery within 24 hours.

We have robust, evidence-based Clinical Care Guidelines developed collaboratively with all specialties involved in the patient journey. These guidelines inform all aspects of pre- and postoperative care, proving instrumental in reducing variation in care and perioperative complications. As a result, transfer to rehabilitation occurs as soon as the patient is medically stable, which is usually on day one or two post-op.



At SCGH, we transfer our hip fracture patients to a secondary rehabilitation hospital. Our geriatric colleagues there allow us to waitlist patients directly without requiring preapproval or clinical handover. The rehabilitation wards are happy to accept surgical patients on day one post-op, and our orthopaedic colleagues round twice a week on the rehabilitation wards to address any postoperative surgical issues that may arise.

Additionally, the Orthopaedic Nurse Practitioner at SCGH plays a crucial role in our success by case managing all orthogeriatric patients throughout their stay and ensuring our guidelines are adhered to. She maintains excellent relationships with several private and public rehabilitation facilities, which are happy to accept referrals directly from her.



From left: Jubin Bhatt (Advanced Trainee, Geriatric Medicine), Stacy Sutherland (Physiotherapist), Denise Glennon (Geriatrician), Alex Fleming (Clinical Nurse Specialist), Kirsten Surgeson (Registered Nurse)

INDICATOR 7A:

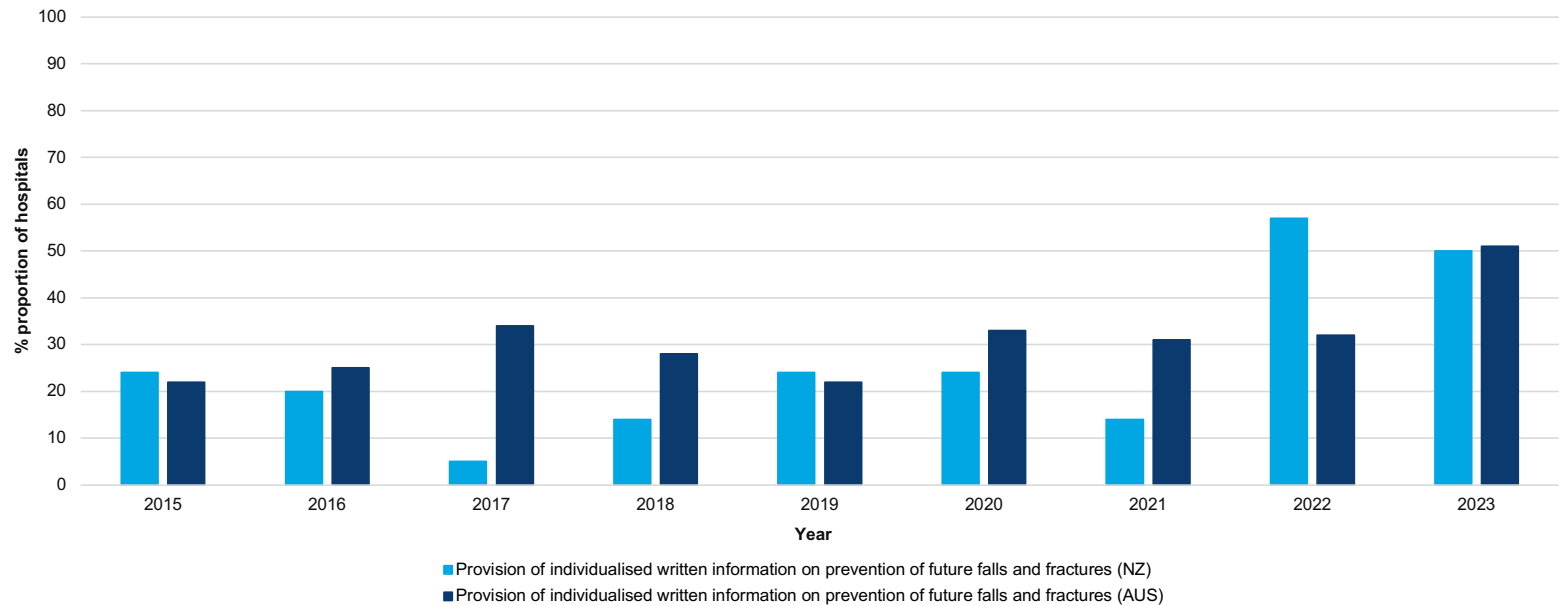
Evidence of local arrangements for the development of an individualised care plan for hip fracture patients prior to the patient's separation from hospital



The provision of individualised written information on the prevention of future falls and fractures has improved since 2015. In New Zealand, 50% of participating hospitals reported that they routinely provide individualised falls prevention information to hip fracture patients. In Australia, 51% of participating hospitals responded that they provide individualised falls and fracture prevention information (Figure 28).

FIGURE 28

Proportion of New Zealand and Australian hospitals reporting routine provision of individualised written information on prevention of future falls and fractures 2015–2023



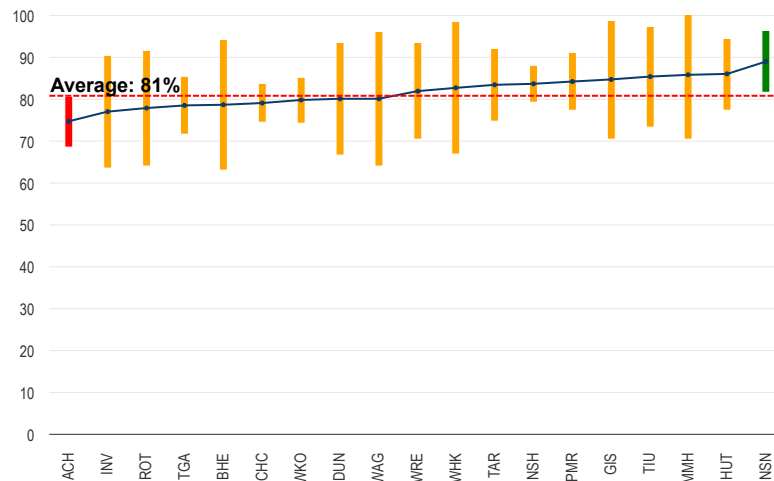


INDICATOR 7B:

Proportion of patients with a hip fracture living in a private residence prior to their hip fracture returning to private residence within 120 days post separation from hospital

FIGURE 29

Return to private residence at 120 days in New Zealand

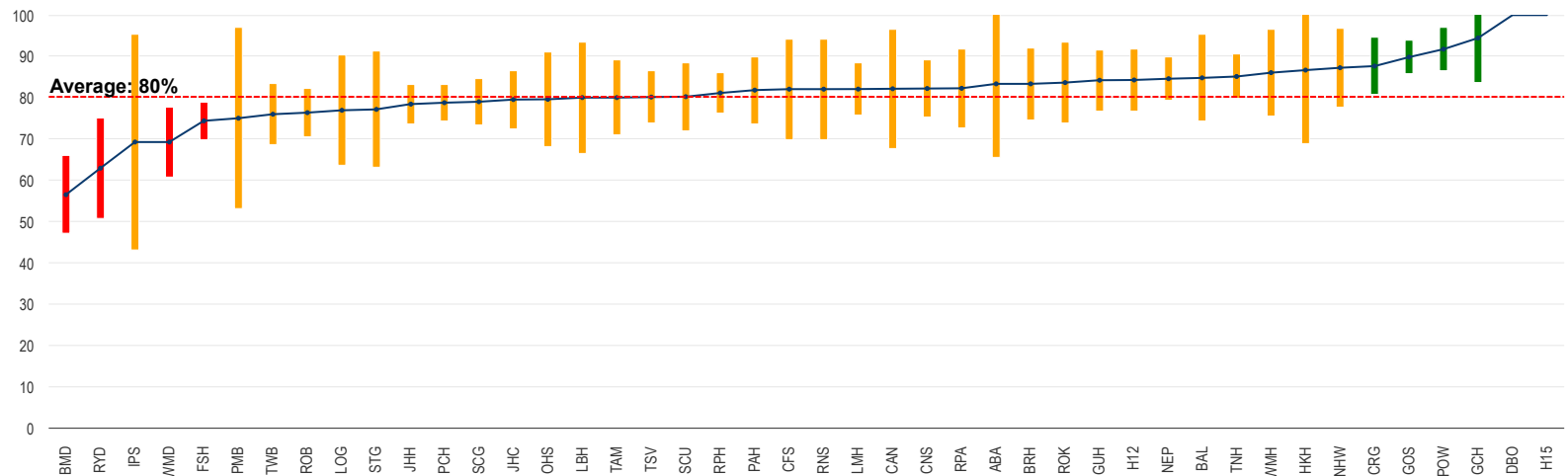


This chart includes sites that had 120-day follow-up data for **at least 70%** of their patients. Sites missing data for more than 30% of their patients have not been included in the caterpillar chart. Further information around completion of follow-up at 120-days is available in the supplementary e-Report.

In 2023, 81% of patients in New Zealand (Figure 29) and 80% in Australia (Figure 30) had returned to their private residence 120 days after hip fracture.

FIGURE 30

Return to private residence at 120 days in Australia



ANZHFR RESEARCH PUBLICATIONS

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/>.

The following research papers use data from the ANZHFR and have been accepted for publication since the last Annual Report.

Harvey LA, Taylor ME, Harris IA, Mitchell RJ, Cameron ID, Sarrami P and Close JCT. Adherence to clinical care standards is associated with reduced mortality following hip fracture. *MJA*. Accepted August 2024

Siminiuc, D., Gumuskaya, O., Mitchell, R., Bell, J., Cameron, I.D., Hallen, J., Birkenhead, K., Hurring, S., Baxter, B., Close, J., Sheehan, K.J., Johansen, A., Chehade, M.J., Sherrington, C., Balogh, Z.J., Taylor, M.E., Sarkies, M. Rehabilitation after surgery for hip fracture – the impact of prompt, frequent and mobilisation-focused physiotherapy on discharge outcomes: an observational cohort study. *BMC Geriatrics* 24, 629 (2024). <https://doi.org/10.1186/s12877-024-05206-8>

Woodcroft-Brown V, Bell J, Pule CR, Mitchell R, Close J, McDougall C, Hurring S, Sarkies M. [Patient, surgical and hospital factors predicting actual first-day mobilisation after hip fracture surgery: An observational cohort study](#). *Australas J Ageing*. 2024 Apr 14. doi: 10.1111/ajag.13312. Epub ahead of print. PMID: 38616338.

Taylor ME, Harvey LA, Close JCT. [How the Hip Fracture Registry is improving outcomes for patients](#). *MJA InSight+*. Issue 12. 2 April 2024.

Taylor ME, Ramsay N, Mitchell R, McDougall C, Harris IA, Hallen J, Ward N, Hurring S, Harvey LA, Armstrong E, Close JCT. Improving hip fracture care: A five-year review of the early contributors to the Australian and New Zealand Hip Fracture Registry. *Australas J Ageing*. 2024 Jan 25. doi: 10.1111/ajag.13270. Epub ahead of print. PMID: 38270215.

Taylor ME, Harvey LA, Crotty M, Harris IA, Sherrington C, Close JCT. Variation in care and outcomes for people after hip fracture with and without cognitive impairment; results from the Australian and New Zealand Hip Fracture Registry. *J Nutr Health Aging*. 2024 Jan 4. 100030.

INDICATOR PERFORMANCE SUMMARY REPORT

A summary of performance against the quality indicators for hip fracture care is below. These reflect the information included in each caterpillar chart and results from the facility survey.

QUALITY INDICATORS:

Indicator 1a*:

Evidence of local arrangements for the management of patients with hip fracture in the emergency department

Indicator 1b:

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

Indicator 2a*:

Evidence of local arrangements for timely and effective pain management for hip fracture

Indicator 2bA:

Proportion of patients with a hip fracture who have documented assessment of pain within 30 minutes of presentation to the emergency department

Indicator 2bB:

Proportion of patients with a hip fracture who received analgesia either in transit (by paramedics) or within 30 minutes of arrival to the emergency department

Indicator 2c:

Proportion of patients with a hip fracture who are received a peripheral nerve block prior to arriving in the operating theatre

Indicator 3a

Proportion of patients with a hip fracture receiving a geriatric medicine assessment during the acute phase of the episode of care

Indicator 4a:

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

Indicator 5a:

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

Indicator 5b:

Proportion of patients with a hip fracture with unrestricted weight bearing immediately post hip fracture surgery

Indicator 5c:

Proportion of patients with a hip fracture experiencing a new Stage II or higher pressure injury during their hospital stay

Indicator 5d:

Proportion of patients with a hip fracture returning to pre-fracture mobility

Indicator 6a:

Proportion of patients with a hip fracture receiving bone protection medicine at discharge from the operating hospital

Indicator 7a*:

Evidence of local arrangements for the development of an individualised care plan at discharge for hip fracture patients

Indicator 7b:

Proportion of patients with a hip fracture living in a private residence prior to their hip fracture returning to private residence within 120 days post hip fracture surgery

- Above average
- Average
- Below average
- Not recorded

* Indicators 1a, 2a and 7a are based on responses to the facility survey. For these indicators, performance is as follows:

- Yes
- Yes (ED only)
- No
- Not recorded

FIGURE 3I

New Zealand hospital quality indicators

	1a	1b	2a	2bA	2bB	2c	3a	4a	5a	5b	5c	5d	6a	7a	7b
	Hip fracture pathway (Facility audit)	Preoperative cognitive assessment	Pain pathway (Facility audit)	Pain assessment	Pain management	Nerve block	Assessed by geriatrician	Surgery within 48	First day walking	Unrestricted weight bearing	No new pressure injuries	Return to pre-fracture mobility	Bone protection medication on d/c	Individualised care plan (Facility audit)	Return to private residence
ACH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BHE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CHC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DUN	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GIS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HKB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HUT	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
INV	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MMH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NSH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NSN	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PMR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ROT	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TAR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TGA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TIU	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WAG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WHK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WKO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WLG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WRE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

FIGURE 32

Australian
hospital quality
indicators

	1a	1b	2a	2bA	2bB	2c	3a	4a	5a	5b	5c	5d	6a	7a	7b
	Hip fracture pathway (Facility audit)	Preoperative cognitive assessment	Pain pathway (Facility audit)	Pain assessment	Pain management	Nerve block	Assessed by geriatrician	Surgery within 48	First day walking	Unrestricted weight bearing	No new pressure injuries	Return to pre-fracture mobility	Bone protection medication on d/c	Individualised care plan (Facility audit)	Return to private residence
ABA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ARM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BAL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BKL	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BMD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BOX	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BRH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CAM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CAN	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CFS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CHM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CNS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CRG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DBO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DDH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FMC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FOO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FRA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FSH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GBH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GCH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GLB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GOS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GRH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GUH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H04	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H09	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H12	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HKH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
IPS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JHC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JHH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LBH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LGH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LIV	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LMH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LOG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MAR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MBH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	1a	1b	2a	2bA	2bB	2c	3a	4a	5a	5b	5c	5d	6a	7a	7b
	Hip fracture pathway (Facility audit)	Preoperative cognitive assessment	Pain pathway (Facility audit)	Pain assessment	Pain management	Nerve block	Assessed by geriatrician	Surgery within 48	First day walking	Unrestricted weight bearing	No new pressure injuries	Return to pre-fracture mobility	Bone protection medication on d/c	Individualised care plan (Facility audit)	Return to private residence
MKY	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MSB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NBH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NEP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NHW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NWR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
OHS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PAH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PCH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PMB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
POW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
QEH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
QII	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RAH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RED	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RHH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RMH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RNS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ROB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ROK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RPA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RPH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
RYD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SCG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SCU	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
STG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SVD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SVM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TAH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TAM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TNH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TSH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TSV	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TWB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TWE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
TWH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WGG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WMD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WMH	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

ANZHFR STEERING GROUP MEMBERSHIP

- › **Professor Jacqueline Close AM**
Geriatrician Co-Chair
- › **A/Professor Chris Wall**
Orthopaedic Surgeon Co-Chair
- › **Dr Frazer Anderson**
Geriatrician, Osteoporosis New Zealand
- › **Adj. Professor Jack Bell**
Advanced Accredited Practising Dietitian, Dietitians Australia
- › **Dr Casey Bennetts**
Emergency Physician, Australasian College of Emergency Medicine
- › **Professor Ian Cameron**
Rehabilitation Physician, Australasian Faculty of Rehabilitation Medicine
- › **Dr Weiwen Chen**
Endocrinologist, Healthy Bones Australia
- › **Ms Melissa Davis**
Clinical Nurse Consultant, Australian and New Zealand Orthopaedic Nurses Alliance
- › **A/Professor Kerin Fielding**
Orthopaedic Surgeon, Royal Australasian College of Surgeons
- › **Mr Stewart Fleming**
Webmaster
- › **Ms Jamie Hallen**
Australian Registry Manager
- › **Dr Sarah Hurring**
Geriatrician, Clinical Lead New Zealand
- › **Dr Angel Hui-Ching Lee**
Geriatrician, Royal Australasian College of Physicians
- › **Professor Charles Inderjeeth**
Geriatrician and Rheumatologist, Australian and New Zealand Bone and Mineral Society
- › **Dr Raymond Kim**
Orthopaedic Registrar, Australian Orthopaedic Registrars' Association
- › **Mr Garry Kirwan**
Physiotherapist, Australian Physiotherapy Association
- › **Dr Sean McManus**
Anaesthetist, Australian and New Zealand College of Anaesthetists
- › **Professor Rebecca Mitchell**
Injury Epidemiologist, Australian Institute Health Innovation, Macquarie University
- › **Mr Pierre Navarre**
Orthopaedic Surgeon, New Zealand Orthopaedic Association
- › **Ms Narelle Payne**
Consumer Engagement Lead, ANZHFR
- › **A/Professor Marinis Pirpiris**
Orthopaedic Surgeon, Victoria
- › **Dr Chrys Pulle**
Geriatrician, Australian and New Zealand Society for Geriatric Medicine
- › **Dr Seth Tarrant**
Orthopaedic Surgeon, New South Wales
- › **Ms Anita Taylor**
Nurse Practitioner, Australian and New Zealand Orthopaedic Nurses Alliance
- › **Ms Nicola Ward**
New Zealand National Coordinator
- › **Mr Mark Wright**
Orthopaedic Surgeon, New Zealand
- › **A/Professor Michael Wyatt**
Orthopaedic Surgeon, Australian Orthopaedic Association





**THANK YOU TO ALL
THE TEAMS WORKING
ACROSS OUR HOSPITALS
IN AUSTRALIA AND
NEW ZEALAND.
YOUR EFFORTS ARE
DRIVING IMPROVEMENTS IN
HIP FRACTURE CARE.**