

**AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE**



**Evidence Sources: Hip Fracture
Clinical Care Standard**

September 2023

Introduction

The quality statements for the *Hip Fracture Clinical Care Standard* were developed in collaboration with the Hip Fracture Clinical Care Standard Topic Working Group and are based on best available evidence at the time of development. Where limited evidence is available, the Commission consults with a range of stakeholders to explore issues and expert opinion.

Literature searches are conducted by Commission staff at different stages of development of a clinical care standard. The initial search for the original Clinical Care Standard took place in 2014. A structured evidence review was conducted in 2022 for the review of the *Hip Fracture Clinical Care Standard* to identify any changes in the evidence base that might affect the quality statements or indicators.

For the initial literature search the process involved:

Identifying Australian clinical practice guidelines, standards and policies by searching:

- Websites of professional colleges and organisations
- Websites of state and territory health departments and agencies
- Internet search.

Identifying international clinical practice guidelines by searching:

- Guideline clearing houses such as the Agency for Healthcare Research and Quality (AHRQ), and Guidelines International Network (GIN)
- Websites of high-quality guideline developers, such as the UK's National Institute for Health and Care Excellence (NICE), Scottish Intercollegiate Guideline Network (SIGN).

Identifying other high-level evidence by searching:

- The Cochrane Collaboration for systematic literature reviews and meta-analyses
- Medical literature databases (Medline, Embase) for systematic reviews and meta-analyses.

For the review of the clinical care standard in 2022, a mapping exercise was undertaken to identify any changes in the recommendations used as the basis of the first clinical care standard, including any changes in the underlying guidelines supporting the standard.

Additional sources were also identified through Australian websites including those listed above.

A list of the key evidence sources for each of the quality statements is listed.

Quality Statement 1	<p>Care at presentation</p> <p>A person presenting to hospital with a suspected hip fracture receives care that is guided by timely assessment and management of medical conditions, including cognition, pain, nutritional status and frailty. Arrangements are made according to a locally endorsed hip fracture pathway.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. 	
Additional Sources	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Delirium Clinical Care Standard. Sydney: ACSQHC, 2021. • Australian Commission on Safety and Quality in Health Care. Comprehensive Care Standard. Sydney: ACSQHC; 2022. Available from: www.safetyandquality.gov.au/standards/nsqhs-standards/comprehensive-care-standard. • 	
Related resources	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry. Welcome to the Australian and New Zealand Hip Fracture Registry. Sydney: ANZHFR. Available from: anzhfr.org. • Australasian College for Emergency Medicine and Australian & New Zealand Society for Geriatric Medicine. Care of older persons in the emergency department [Policy P51]. Melbourne: ACEM, 2020. • Australian and New Zealand Hip Fracture Registry. Annual report of hip fracture care. Sydney: ANZHFR, 2021. • MacLulich A. 4AT: rapid clinical test for delirium. Available from: www.the4at.com. • Agency for Clinical Innovation. Delirium screen for older adults. NSW Government; 2014. • Clinical Excellence Queensland, Queensland Health. Identification of frailty. Brisbane: Queensland Government; 2020. Available from: https://clinicaexcellence.qld.gov.au/priority-areas/service-improvement/improving-quality-safety-and-care-older-queenslanders/identification. • Dementia Australia. Rowland Universal Dementia Assessment Scale (RUDAS). Dementia Australia; 2022. Available from: www.dementia.org.au/resources/rowland-universal-dementia-assessment-scale-rudas. • Dementia Centre for Research Collaboration. Kimberley Indigenous Cognitive Assessment tool. DCRC; 2004. 	

Quality Statement 2	<p>Pain Management</p> <p>A person with a hip fracture is assessed for pain at the time of presentation to the emergency department and regularly throughout their acute admission. Pain management includes appropriate multimodal analgesia and nerve blocks, unless contraindicated.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014 	
International Guidelines	
<ul style="list-style-type: none"> • National Institute for Health and Care Excellence (GB). Hip fracture: management [clinical guideline CG124]. United Kingdom: NICE (GB), 2023. • American Academy of Orthopaedic Surgeons. Management of hip fractures in older adults. [Internet] Rosemont (IL): AAOS; 2021 [cited 2022 Sep 27] Available from: www.orthoguidelines.org/topic?id=1038&tab=all_guidelines. 	
Additional Sources	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Opioid Analgesic Stewardship in Acute Pain Clinical Care Standard. Sydney: ACSQHC, 2022. • Ritcey BPP, Woo MY, Perry JJ. Regional nerve blocks for hip and femoral neck fractures in the emergency department: a systematic review. CJEM. 2016 Jan;18(1):37–47. • Guay J, Kopp S. Peripheral nerve blocks for hip fractures in adults. Cochrane Database Syst Rev. 2020 Nov 25;11(11):Cd001159. • Schug S PG, Scott D, Alcock M, Halliwell R, Mott J, editors. Acute pain management: scientific evidence (5th edition). Melbourne: Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine, 2020. • Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine. PS41(G) position statement on acute pain management 2022. Melbourne: ANZCA, 2022. 	
Related resources	
<ul style="list-style-type: none"> • NeuRA (Neuroscience Research Australia) Foundation ANZHFR. My hip fracture information and individual care plan. Sydney: ANZHFR; 2021. • MDApp. Pain Assessment in Advanced Dementia (PAINAD) scale. Manchester (GB): MDApp; 2020. Available from: www.mdapp.co/pain-assessment-in-advanced-dementia-painad-scale-calculator-550. • Department of Health and Aged Care. Abbey pain scale. Canberra: Australian Government; 2013. Available from: www1.health.gov.au/internet/publications/publishing.nsf/Content/triageqrg~trriageqrg-pain~trriageqrg-abbey. 	

- Wong-Baker FACES Foundation. Instructions for use Oklahoma City (OK): Wong- Baker FACES Foundation; 2016. Available from: [wongbakerfaces.org/ wp-content/uploads/2016/05/FACES_English_Blue_w-instructions.pdf](http://wongbakerfaces.org/wp-content/uploads/2016/05/FACES_English_Blue_w-instructions.pdf).
- Lim D, Hall A, Jordan M, Suckling B, Tuffin PH, Tynan K, et al. Standard of practice in pain management for pharmacy services. *Journal of Pharmacy Practice and Research*. 2019;49(3):270–84.

Quality Statement 3	<p>Orthogeriatric model of care</p> <p>A person 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. A coordinated multidisciplinary approach is used to identify and manage malnutrition, frailty, cognitive impairment and delirium.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. 	
International Guidelines	
<ul style="list-style-type: none"> • National Institute for Health and Care Excellence (GB). Hip fracture: management [clinical guideline CG124]. United Kingdom: NICE (GB), 2023. 	
Additional Source	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Comprehensive Care Standard. Sydney: ACSQHC; 2022. Available from: www.safetyandquality.gov.au/standards/nsqhs-standards/comprehensive-care-standard. • Australian Commission on Safety and Quality in Health Care. Venous Thromboembolism Prevention Clinical Care Standard. Sydney: ACSQHC, 2020. • Australian and New Zealand Hip Fracture Registry. ANZHFR sprint audits. Sydney: ANZHFR; 2021. Available from: anzhfr.org/sprintaudits. • Bell J GÓ, Hertz K, Santy-Tomlinson J, Skúladóttir S, Eleuteri S, Johansen A. Nutritional care of the older patient with fragility fracture: opportunities for systematised, interdisciplinary approaches across acute care, rehabilitation and secondary prevention settings. In: Falaschi P MD, editor. Orthogeriatrics: the management of older patients with fragility fractures (2nd edition). Cham (CH): Springer; 2021. • Volkert D, Beck AM, Cederholm T, Cruz-Jentoft A, Hooper L, Kiesswetter E, et al. ESPEN practical guideline: clinical nutrition and hydration in geriatrics. Clin Nutr. 2022 Apr;41(4):958–89. • Healing Foundation. Supporting Stolen Generations survivors, families and communities. [Internet] Canberra: Healing Foundation; 2023 [cited 2023 April 11] Available from: healingfoundation.org.au. 	
Related resources	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Delirium Clinical Care Standard. Sydney: ACSQHC, 2021. • Australian Commission on Safety and Quality in Health Care. Hospital-acquired complications (HACs). Sydney: ACSQHC; 2022. Available from: www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications. 	

Quality Statement 4	<p>Timing of surgery</p> <p>A person with a hip fracture receives surgery within 36 hours of their first presentation to hospital.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. • Therapeutic Guidelines. Venous thromboembolism (VTE): prophylaxis. Melbourne: Therapeutic Guidelines, 2018 Updated 2020 Aug. 	
International Guidelines	
<ul style="list-style-type: none"> • National Institute for Health and Care Excellence (GB). Hip fracture: management [clinical guideline CG124]. United Kingdom: NICE (GB), 2023. 	
Additional Sources	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Venous Thromboembolism Prevention Clinical Care Standard. Sydney: ACSQHC, 2020. • Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship Clinical Care Standard. Sydney: ACSQHC, 2020. 	

Quality Statement 5	<p>Mobilisation and weight bearing</p> <p>A person with a hip fracture is mobilised without restrictions on weight bearing, starting the day of, or the day after, surgery, and at least once a day thereafter, according to their clinical condition and agreed goals of care.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. 	
International Guidelines	
<ul style="list-style-type: none"> National Institute for Health and Care Excellence (GB). Hip fracture: management [clinical guideline CG124]. United Kingdom: NICE (GB), 2023. American Academy of Orthopaedic Surgeons. Management of hip fractures in older adults. Rosemont (IL): AAOS; 2021. Available from: www.orthoguidelines.org/topic?id=1038&tab=all_guidelines. 	
Additional Sources	
<ul style="list-style-type: none"> Australian and New Zealand Hip Fracture Registry. Data dictionary [version 15]. Sydney: ANZHFR, 2022. NeuRA (Neuroscience Research Australia) Foundation AaNZHFR. My hip fracture information and individual care plan. Sydney: ANZHFR; 2021. Fairhall NJ, Dyer SM, Mak JC, Diong J, Kwok WS, Sherrington C. Interventions for improving mobility after hip fracture surgery in adults. Cochrane Database Syst Rev. 2022 Sep 7;9(9):Cd001704. 	
Related Resources	
<ul style="list-style-type: none"> Australian Commission on Safety and Quality in Health Care. Hospital-acquired complications (HACs). Sydney: ACSQHC; 2022. Available from: www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications. Australian Commission on Safety and Quality in Health Care. Hospital-acquired complication 1: pressure injury factsheet. Sydney: ACSQHC; 2018. Available from: www.safetyandquality.gov.au/publications-and-resources/resource-library/hospital-acquired-complication-1-pressure-injury-fact-sheet. 	

Quality Statement 6	Minimising risk of another fracture Before a person leaves hospital after a hip fracture, they receive a falls and bone health assessment and management plan, with appropriate referral for secondary fracture prevention.
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. 	
Additional Sources	
<ul style="list-style-type: none"> • Osteoporosis New Zealand. Clinical standards for fracture liaison services in New Zealand. Wellington (NZ): Osteoporosis New Zealand, 2021. 	
Related Resources	
<ul style="list-style-type: none"> • Australian Commission on Safety and Quality in Health Care. Comprehensive Care Standard. Sydney: ACSQHC; 2022. Available from: www.safetyandquality.gov.au/standards/nsqhs-standards/comprehensive-care-standard. • Australian and New Zealand Hip Fracture Registry. Reducing the risk of future fractures: osteoporosis and fall prevention. Sydney: ANZHFR; 2022. Available from: anzhfr.org/wp-content/uploads/sites/1164/2022/11/ANZHFR4438-Hip-Fracture-infosheet_Reducing-the-risk-of-future-fractures_v3.pdf. • Healthy Bones Australia. Fact sheets. Sydney: Health Bones Australia; 2023. Available from: healthybonesaustralia.org.au/resource-hub/fact-sheets. • Therapeutic Guidelines. Osteoporosis and minimal-trauma fracture. [Internet] Melbourne: Therapeutic Guidelines; 2022 Available from: tgldcdp.tg.org.au/viewTopic?topicfile=osteoporosis-minimal-trauma-fracture. 	

Quality Statement 7	<p>Transition from hospital care</p> <p>Before a person leaves hospital after a hip fracture, an individualised care plan is developed that describes their goals of care and ongoing care needs. This plan is developed in discussion with the person and their family or support people. The plan includes mobilisation activities and expected function post-injury, wound care, pain management, nutrition, fracture prevention strategies, changed or new medicines, and specific rehabilitation services and equipment. On discharge, the plan is provided to the person and communicated with their general practice and other ongoing clinicians and care providers.</p>
EVIDENCE SOURCES	
Australian Guidelines	
<ul style="list-style-type: none"> • Australian and New Zealand Hip Fracture Registry Steering Group. Australian and New Zealand guideline for hip fracture care: improving outcomes in hip fracture management of adults. Sydney: ANZHFR, 2014. 	
Additional Sources	
<ul style="list-style-type: none"> • Perioperative Mortality Review Committee. Perioperative mortality in New Zealand. Wellington (NZ): Te Tāhū Hauora Health Quality and Safety Commission New Zealand (NZ), 2019. 	
Related Resources	
<ul style="list-style-type: none"> • NeuRA (Neuroscience Research Australia) Foundation AaNZHFR. My hip fracture information and individual care plan. Sydney: ANZHFR; 2021. • Te Tāhū Hauora Health Quality & Safety Commission (NZ). Recovering from a hip fracture: Pikinga ora i tētahi whainga hope. Wellington (NZ): Te Tāhū Hauora; 2021. Available from: www.hqsc.govt.nz/resources/resource-library/recovering-from-a-hip-fracture-pikinga-ora-i-tetahi-whainga-hope-booklet. 	