SA Health – Orthogeriatric

Acute Hip Fracture Management Model of Care

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Document Control

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Acknowledgements

SA Health would like to thank the clinicians, managers and consumers who engaged in the process and contributed to the original development of the *Orthogeriatric: Acute Hip Fracture Management Model of Care* in 2016.

SA Health would like to acknowledge that the lands the Orthogeriatric Fracture Centres are located on are the traditional lands for the Kaurna people and we respect their spiritual relationship with this country. We also acknowledge the Kaurna people as the custodians of the greater Adelaide region and their cultural and heritage beliefs are still as important to the living people today. SA Health also acknowledges this Model of Care provides care for patients who originate from other traditional lands across all of Australia.

"The term "Aboriginal" is used respectively in this document as an all-encompassing term for Aboriginal and Torres Strait Islander people and culture"

Identifying Aboriginal Patients

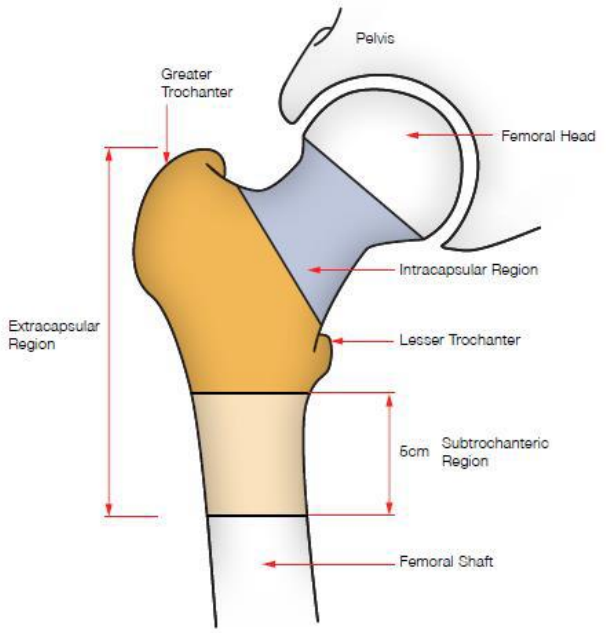
Australian Aboriginal Culture is the oldest living culture in the world and yet Aboriginal people continue to experience the poorest health outcomes compared to non-Aboriginal Australians.

In an Australian Institute of Health and Welfare (A.I.H.W.) report it has shown the rate of hip fractures may be decreasing in Australia and New Zealand however it demonstrates a higher and increasing rate of hip fracture in Aboriginal and Torres Strait Islander populations. This report has indicated indigenous men are twice as likely to fracture their hip compared to non-indigenous males. Indigenous women are also at increased risk of hip fracture and both male and female indigenous people are more likely to fracture at a younger age. [2]

Executive Summary

A hip fracture is defined as when a patient sustains a fracture between the subtrochanteric region and the femoral head within their femur (see diagram 1).

Diagram 1:



From Australian and New Zealand Guideline for Hip Fracture Care: Improving Outcomes in Hip Fracture Management of Adults, September 2014 – Diagram of a Hip1

A hip fracture is a significant injury where the patient experiences a high level of pain and discomfort. Older persons who have experienced a hip fracture may have other health issues which adds a level of complexity and requires careful management.

This Model of Care demonstrates a high level and quality of care that is to be provided to all South Australians who are diagnosed with a hip fracture. This will also assist the clinicians with achieving the best clinical outcomes.

The SA Health Model of Care has two overarching national standards being the Australian and New Zealand Hip Fracture Registry[1] and the Australian Commission on Safety and Quality in Health Care[2]. SA Health has expanded upon these guidelines to develop a consistent state-wide model of care led by clinicians using evidence-based practice principles appropriate for South Australians.

This model of care is patient centred and details the consumer experience. SA Health is committed to providing the highest possible level of care with the development of specialist Orthogeriatric Fracture Centres and services to provide the patient with the best potential of a recovery to their pre-fracture function and mobility.

[1] Australian and New Zealand Guideline for Hip Fracture Care: Improving Outcomes in Hip Fracture Management of Adults, September 2014
[2] Australian Commission on Safety and Quality in Health Care, Hip Fracture Care: Clinical Care Standards 2023[1]

The Consumer Experience

The consumer experience is essential to the Acute Hip Fracture Management Model of Care.

- **A patient with a hip fracture will be directed to a specialist Orthogeriatric Fracture Centre.**

  To support optimal patient outcome, the SA Ambulance Service will transport a patient with a suspected hip fracture (*who is within a 60-minute travel distance by road*) directly to the closest Orthogeriatric Fracture Centre. Patients outside of this time range will be transported to their closest local public hospital for medical stabilisation prior to being transferred to an Orthogeriatric Fracture Centre.

- **The patient will receive timely and effective pain management.**

  A patient with a hip fracture will receive timely and effective pain relief to ensure the patient is comfortable throughout their entire journey.

- **The patient will be treated under an orthogeriatric shared Model of Care.**

  Orthopaedic surgeons and orthogeriatricians will provide complete patient care at the highest possible level from the time of admission through to the time of discharge from acute care following a collaborative Model of Care.

- **The patient will receive appropriate surgical management in a timely manner.**

  Patients who are medically stable and who require surgical intervention will have surgery scheduled on the same day or the next day after their initial hospital presentation. For patients who require additional time for medical attention, prior to surgery, these patients will be given the highest possible level of care. Once the patient is ready surgery it will be scheduled as soon as practicable.

- **The patient will be supported with early mobilisation.**

  Evidence shows that early mobilisation is important for patient rehabilitation. The patient will be encouraged and supported to mobilise the day of surgery, unless contraindicated.

- **The patient will have a personalised discharge plan completed with ongoing support.**

  The patient will have multi-disciplinary team input to develop a supportive and personalised discharge plan to maximise patient potential which will include contact information, ongoing pain management, a rehabilitation plan, and any other clinical requirements specific to the patient's ongoing care.

- **The patient and/or carer will be regularly consulted with by all care providers.**

  The patient and/or carer will receive regular consultation by all the patient's clinicians. This is to ensure both patient and/or carer are given the opportunity for all questions to be answered to assist in making important decisions and to discuss advance care directives regarding the patient's care plan.

- **Aboriginal or Torres Strait Islander patients will receive culturally appropriate and respectful care.**

  A patient who identifies as Aboriginal or Torres Strait Islander will have an Aboriginal Health Liaison Officer allocated to ensure the patient receives culturally respectful care throughout their entire patient journey.

- **SA Health will measure and deliver best clinical practice**.

  A patient's experience will be recorded in accordance with SA Health's privacy and confidentiality policies and procedures. This is to assist in the collection of data through participation in surveys as well as clinical audits to ensure the model of care is being delivered.

The Model of Care

The SA Health Orthogeriatric Acute Hip Fracture Management Model of Care has been developed to ensure all South Australians with a hip fracture consistently receive best practice clinical care for their entire patient journey. Health networks should strive to provide adequate funding and resourcing to achieve the patient pathway as outlined in this model of care. If this is not achievable, local processes should be developed where deviations from the model of care are present, provided they are consumer centred, uphold timely assessment and management of a hip fracture and minimise the risk of another fracture.

This Model of Care is specifically written to assist with surgical management of a hip fracture. It is acknowledged that certain patient groups require additional or alternative care to that detailed within this model. These groups include.

- Non-surgical management of hip fracture, detailed in section 1.20.
- Management of peri-prosthetic hip fractures, detailed in section 1.21.
- Management of malignancy related hip fractures, detailed in section 1.22 and.
- Management of hip fractures in patients with additional complexity, detailed in section 1.23

1.1 Model of Care Patient Scope

This model of care is appropriate for all South Australians who have a suspected hip fracture and who are:

- 50 years and over
- Under 50 years and presenting with fracture caused by osteoporosis or osteopenia

Persons who do not meet the above patient groups or who have multiple trauma conditions requiring treatment will be managed under the relevant Trauma Model of Care at a SA Health Trauma Centre.

1.2 SA Health Orthogeriatric Fracture Centres

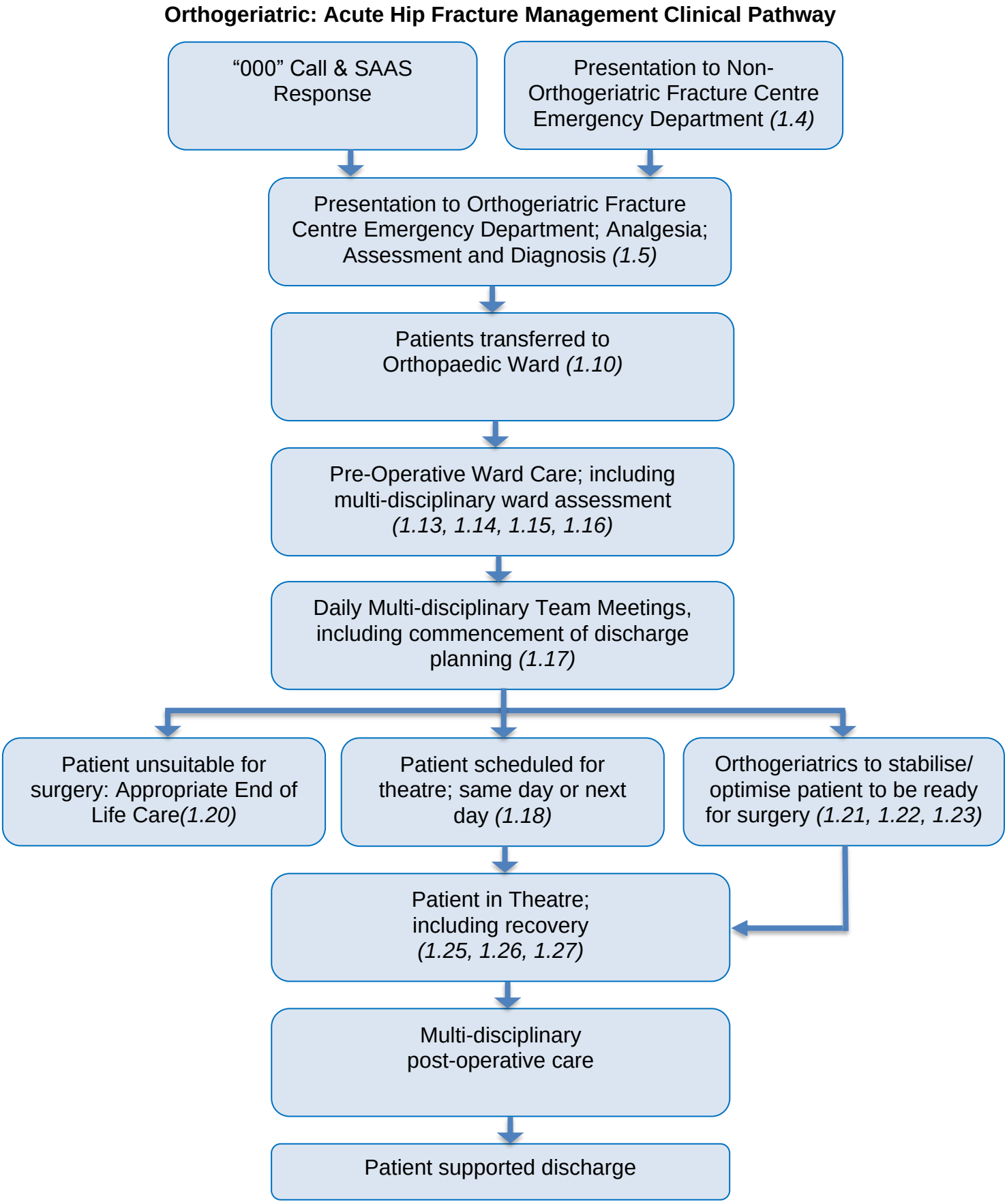
It is recommended that specific SA Health sites be developed into specialist centres that provide the highest level of care and treatment of Hip Fractures as detailed in this Model of Care. These sites will be known as Orthogeriatric Fracture Centres and are required to have the following services as a minimum:

- Surgical orthopaedic services with a minimum of two appropriately skilled resident orthopaedic surgeons, 7 days a week.
- Geriatric service or a physician service with tele-health/on-call geriatric support available, 7 days a week.
- Access to appropriately trained anaesthetists, 7 days a week.
- Access to appropriately skilled allied health services, 7 days a week.
- 24/7 access to emergency department with appropriately skilled staff.
- 24/7 access to high level monitored care units i.e., ICU/HDU facilities.
- 24/7 access to medical imaging and pathology services.
- Appropriately nursing staff skilled in orthogeriatrics care.
- Appropriate level of rehabilitation services.

1.3 Clinical Pathways

The SA Health Orthogeriatric Acute Hip Fracture Model of Care Clinical Pathway articulates the patient's journey, as seen in Figure 1.

FIGURE 1: CLINICAL PATHWAY



SA Ambulance Service Response

South Australian Ambulance Service (SAAS) will provide comprehensive patient assessment, administration of analgesics for pain relief and transporting of patients with a suspected hip fracture to the most appropriate SA Health hospital location. Any patient with a suspected hip fracture who lives within 60 minutes of a nominated Orthogeriatric Fracture Centre will be taken directly to the closest centre.

Presentation and Diagnosis

A patient who presents at an SA Health emergency department will receive emergency medical assessments to provide effective management and to enable a timely diagnosis.

A patient will be promptly assessed in an emergency department to facilitate an accurate diagnosis and will receive effective and efficient pain relief, if necessary. The patient and/or carer/decision maker will receive ongoing consultation and education with clinicians to assist in decision making during the diagnosis and presentation stage.

1.4 Patient presenting at non-Orthogeriatric Fracture Centre Emergency Department

A patient who is presented at a non-Orthogeriatric Fracture Centre emergency department will have an assessment as detailed in section 1.8.

The patient will receive appropriate pain relief and if suitable be administered a nerve block prior to being transferred to their allocated Orthogeriatric Fracture Centre, as detailed in section 1.7.

Prior to transfer to an Orthogeriatric Fracture Centre, patients should have their Advance Care Directive[3] reviewed and clinicians should consider if there is a need to complete a 7 Step Resuscitation Plan Pathway[4] for the patient.

Consider the patient's private health cover status and whether they elect to be transferred to a private hospital.

Where possible, complete virtual consultation with orthogeriatric fracture centre prior to transfer.

All SAAS, Royal Flying Doctor Service (RFDS) and MedSTAR transfers are to be appropriately prioritised to ensure effective surgery timeframe and achievement of optimal patient outcomes as detailed in this model of care.

1.5 Patient presenting at Orthogeriatric Fracture Centre Emergency Department

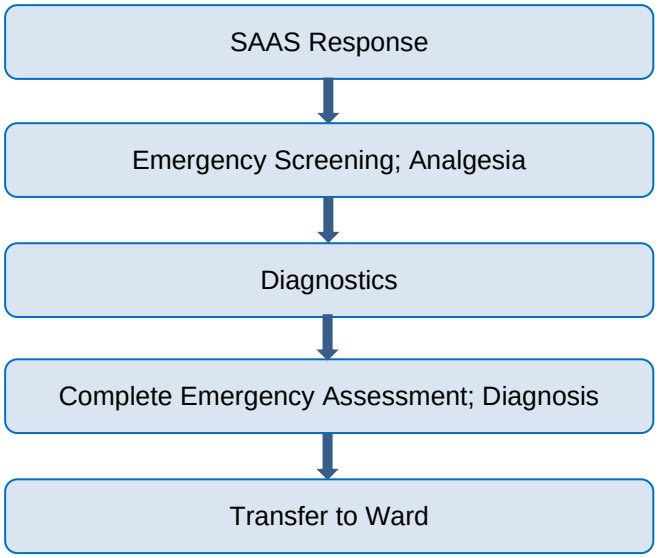
A patient that presents directly at an Orthogeriatric Fracture Centre emergency department will have a complete an assessment as detailed in section 1.8 by the emergency department. The assessment will ensure that the patient has received or will receive appropriate pain relief, medical imaging, and diagnosis. Medical imaging is required ideally to provide a diagnosis of a hip fracture.

The emergency department assessment will also ensure the patient has had all other required emergency department screenings completed to identify any other conditions that may require urgent treatment which may have contributed to the hip fracture.

A patient who presents at an Orthogeriatric Fracture Centre emergency department due to transfer from a non-Orthogeriatric Fracture Centre hospital will have a fast-tracked emergency department assessment with the emergency department reviewing the assessment and diagnostics already obtained by the initial presenting emergency department. The final diagnostics will be the responsibility of the Orthogeriatric Fracture Centre emergency department.

1.6 Standard Emergency Pathway

When a patient is presented to the emergency department, the ideal pathway for the patient is as follows.



SAAS Response

Initially, pain relief will be provided by SAAS Officers. It is crucial for pain relief to be reviewed upon arrival at the emergency department prior to offering additional pain relief.

Emergency Screening: Analgesia Administered

Emergency department will screen the patient to stabilise any life-threatening conditions before reviewing the patient's suspected hip fracture. Analgesia will be reviewed and offered as soon as practicable after the patient presents in the emergency department as detailed in section 1.7 in this Model of Care.

Diagnostics

To ensure efficient and accurate diagnosis, the emergency department assessment will include pre-operative diagnostics that can assist with further diagnosis with the use of the electrocardiogram (ECG), further pathology and medical imaging, as detailed in 1.8.

Complete Emergency Assessment; Diagnosis

Following the completed emergency department assessment, the department must consider the patient's wishes with a review of the patients' current Advance Care Directives and with the clinician's advice, if necessary, discuss the patient's resuscitation plan.

Transfer to Ward

Once a hip fracture is confirmed, the patient will be provided with a dynamic pressure relieving mattress to manage the patient's comfort levels prior to transferring to the ward.

1.7 Analgesia

A patient should be offered pain relief on presentation, mindful of pain relief previously offered by SAAS or a non-Orthogeriatric Fracture Centre emergency department. A patient will have optimal age-appropriate analgesia provided prior to medical imaging to ensure the patient's pain levels are effectively managed.

Guidelines of Analgesia:

- Unless contraindicated, Paracetamol is given on presentation and 6 hourly thereafter with a maximum of 4g within 24 hours.
- A femoral nerve block to be provided to all patients with a recommendation that a Fascia Iliaca nerve block be considered, unless contraindicated.
- Opioids, as required.

1.8 Standard Emergency Department Assessment

All patients will receive a comprehensive emergency department assessment including but are not exclusive to:

- Identifying the carer, next of kin and/or decision maker and obtain contact details of decision maker if not present.
-  Identify if the patient identified as Aboriginal or Torres Strait Islander.
- Standard vital observations, including neurovascular.
- Obtain medical history, including determining current medication schedule.
- Situational analysis of how injury occurred.
- Identify associated injuries.
- Complete screening falls, cognitive impairment/delirium, and pressure injury
- Consider nutritional screening as per local procedures.
- Assess patient's pre-fracture social, function and mobility status.
- Review advance care directives.
- Discuss the 7 Step Pathway Resuscitation Plan where there is a direct clinical need.

A patient will undergo pre-operative medical investigations. This includes but is not exclusive to:

- Bloods (FBC or CBE, T&S, COAGs, ELU).
- Electrocardiogram.
- Medical Imaging, including the following X-rays:
  - AP PELVIS centred on Pubis.
  - LATERAL OBLIQUE HIP
  - AP and LATERAL LONG FEMUR VIEWS on affected femur
  - CHEST

If the emergency department assessment has determined that the patient is diagnosed with a hip fracture with no other medical conditions that require investigations and/or interventions, the emergency department is able to organise for the patient to be transferred either to the ward or alternatively transferred to their allocated Orthogeriatric Fracture Centre, as detailed in section 1.11 in this Model of Care.

The time this process takes will vary depending on the patient. It is estimated that an emergency assessment should be completed within 2 hours from presentation.

If the assessment indicates the patient demonstrates other symptoms requiring further urgent medical investigation, it is necessary for the patient to be referred to a senior emergency clinician for a patient review. Where a patient has multiple diagnoses, the senior emergency clinician is to use their clinical judgement to determine the most appropriate clinical pathway to stabilise the patient.

1.9 Obtaining Consent before Providing Medical Treatment and Healthcare

Patient-centred care requires obtaining consent before medical treatment, as per the Consent to Medical Treatment and Palliative Care Act 1995 and Advance Care Directives Act 2013. The consulting doctor must obtain informed consent from adult patients with decision-making capacity. If capacity is impaired, consent must align with the patient's documented wishes or instructions in the Advance Care Directive (ACD). Emergency situations are exceptions.

All consent obtained must be documented in line with legislative requirements and local procedures.

If a valid Resuscitation Plan 7 Step Pathway has been completed by the patient, this may assist in determining treatment as it may include instructions and goals of care that have been previously documented after consultation with the patient's ACD, substitute decision-maker/s and/or person/s responsible.

If potentially life sustaining treatment is offered and refused by the patient, or the appropriate substitute decision-maker/s and/or person/s responsible will be considered to initiate the Resuscitation Plan 7 Step Pathway.

EMERGENCIES

If the patient does not have decision-making capacity to consent and

The treatment is necessary to meet an imminent risk to life or health (where practicable, this is supported in writing by another medical practitioner), and

There is no substitute decision-maker/s appointed on an ACD, or they are not available, and

There is no ACD.

- with relevant instructions, or
- there is reason to believe that instructions were not intended to apply, or
- there is no time to work it out, and

There is no Person Responsible available and willing to consent, then.

Emergency medical treatment can be provided without consent

Patient admitted to ward

All patients that require surgical treatment for a hip fracture will be transferred to the appropriate ward within a SA Health nominated Orthogeriatric Fracture Centre.

1.10 Ward Admission

Patients that are admitted to an Orthogeriatric Fracture Centre ward must have a complete diagnosis of a hip fracture including the initial pain relief administered. The emergency department will contact their hospital flow/bed allocation unit to advise an orthopaedic bed is required for an incoming hip fracture patient.

The patient is ideally admitted to an orthopaedic ward, however in instances where there is no capacity, a patient can be admitted to another surgical ward and be provided with access to suitably skilled staff.

The patient is to be admitted under an orthopaedic bed card with both the orthopaedic and orthogeriatric consultant names listed.

It is important to note while the patient is admitted under the orthopaedic service, this model of care details a comprehensive multi-disciplinary orthogeriatric service. Both the orthopaedic and orthogeriatric consultants' names will be listed on the bed card to enable clear identification of who should be contacted for either surgical or medical issues.

If a patient is admitted to a medical ward due to other medical conditions requiring stabilisation, prior to surgery, an orthogeriatric outreach service will be provided to the patient.

1.11 Allocated Orthogeriatric Fracture Centres

To maximise efficiency and to ensure consistency, SA Health will allocate specific Orthogeriatric Fracture Centres to non-Orthogeriatric Fracture across the state. This will ensure patient transfers can be completed efficiently with one phone call to the appropriate bed allocation unit.

Any patient that presents at a metropolitan non-Orthogeriatric Fracture Centre and has a confirmed diagnosis of a hip fracture will be transferred to the Orthogeriatric Fracture Centre within their local health network (LHN).

Regional Local Health Networks

During a SAAS call out, any patient that has a suspected hip fracture and is within a 60-minute drive to their closest Orthogeriatric Fracture Centre will be taken directly to that emergency department.

For patients transferred by air, including those from non-Orthogeriatric Fracture Centres within a Regional LHN or interstate locations, the destination is Central Adelaide LHN's Orthogeriatric Fracture Centre. Geographic origin does not affect this allocation.

Any patient that presents at a non-Orthogeriatric Fracture Centre within a Regional LHN and is being transferred by road will be allocated to LHN or Mount Gambier Hospital depending on which hospital has the shortest travelling time.

The following table shows the various Orthogeriatric Fracture Centre allocations for Regional LHN's.

Northern Adelaide LHN	Southern Adelaide LHN	Mount Gambier Hospital
Yorke Peninsula	Mallee	Limestone Coast
Mid North	Coorong	
Riverland	Fleurieu Peninsula	

1.12 Up Transfer Guidelines

Up Transfer is defined as the movement of a patient from a non-Orthogeriatric Fracture Centre to their allocated Orthogeriatric Fracture Centre.

To complete patient transfers, the following guidelines must be met:

Consent and Documentation:

- Obtain appropriate consent before transfer.
- Review Advance Care Directives and complete a Resuscitation Plan 7 Step if necessary, before transfer.
- Consider utilising an up-transfer checklist to ensure thorough transfer and patient safety.

Allocation and Bed Management:

- Patients requiring an up transfer must be moved to their designated Orthogeriatric Fracture Centre.
- Identify patients with private health cover; if agreeable to the patient, facilitate transfer to a private hospital.
- In cases where the allocated Orthogeriatric Fracture Centre lacks capacity, it is their responsibility to secure a bed at an alternative facility, confirmed prior to transfer.

Transfer Coordination:

- All transfers must be appropriately triaged by SAAS, Royal Flying Doctor's Service (RFDS), and the State Health Coordination Centre for prioritisation and facilitation.
- For regional to metropolitan transfers via SAAS road crew, consider the use of pressure relieving devices for patient comfort during the journey.

Communication and Patient/Caregiver Support:

- Maintain consistent communication with patients and/or their caregivers throughout the entire transfer process.

Pre-operative Ward Care

Patients will receive comprehensive pre-operative multi-disciplinary ward care.

All patients will be provided with comprehensive multi-disciplinary review and care prior to surgical intervention. This includes ongoing engagement with the patient and/or carer, pre-operative medical assessments, ongoing pain management and if appropriate, early discharge planning.

Medical assessments will occur 7 days a week through a consultant led service. This service will be completed in person or via telephone. Junior doctors or nurses who complete medical assessments must report back to the consultant as soon as practicable.

1.13 Pre-operative ward care

Comprehensive Ward Care Pre-Operative will include but is not exclusive to:

Screening and Assessment:

- Evaluate cognitive impairment, delirium, frailty, nutrition, falls, and pressure injuries.
- Conduct an oral health assessment as part of the patient's overall nutritional evaluation, with potential implications for osteoporosis treatment choices.

Care Planning:

- Develop comprehensive care plans, incorporating patient goals of care.

Vital Sign Monitoring:

- Regularly observe and document vital signs, including neurovascular assessments.

Hydration and Nutrition:

- Ensure adequate hydration and nutrition, avoiding prolonged fasting; maintain close monitoring.

Dietary Support:

- Offer high protein, high energy diet with nourishing mid meals, snacks, or drinks (unless contraindicated).
- Modify diet and fluids for pre-morbidly dysphagic patients, as tolerated.

Pain Management:

- Administer nerve blocks for perioperative pain relief (unless contraindicated).
- Provide ongoing pain relief to ensure patient comfort.
    - Paracetamol every 6 hours (maximum 4g in 24 hours, unless contraindicated).
    - Fentanyl as required.
    - Additional opioids for breakthrough pain.

Medications:

Administer routine medications as per orthogeriatrician's consultation.

Other Care Measures:

- Insert urinary catheter if necessary (unless contraindicated).
- Provide a dynamic pressure relieving mattress if not already supplied.
- Assist in completing the pre-operative ward checklist and other documentation as per health unit guidelines.
- Prepare the patient for surgery following the directives of the multidisciplinary team.

When a patient identifies as Aboriginal throughout the patient's admission, an Aboriginal Liaison Officer will be engaged as a member of the ongoing multi-disciplinary care team.

1.14 Pre-operative: Orthogeriatric

Orthogeriatric Fracture Centres aim to have a 7 day a week consultant led orthogeriatric service. To ensure the patient's suitability for theatre, patients preferably will receive a pre-operative assessment by a consultant who will review the patient's complete medical history and consider any possible co-morbidities that may exist.

The pre-operative ward assessment includes:

- A personalised ongoing care plan for pre-operative and if possible, post-operative needs
- Frailty screening
- Cognitive assessment and delirium screening using the 4AT screening tool.
- Functional assessment
- An overall medical assessment
- Review and referrals for allied health needs.
- Commencement of discharge plan.

The patient will also receive a pharmaceutical review pre-operation by the orthogeriatrician in consultation with the pharmacist. The pharmacist will review the medication schedule, the risk assessment and requirements post-surgery and any medications required during the fasting period to maintain the patient's wellbeing.

During this assessment, the patient and/or decision maker will receive ongoing communication with the consultant to ensure the patient is aware of what will happen.

1.15 Pre-operative: Orthopaedic

The Orthogeriatric Fracture Centres will have a 7 day a week consultant led orthopaedic service. All patients will be required to complete an orthopaedic pre-operative ward assessment. This is to ensure the patient and/or decision maker/carer understands the procedure and if necessary, the patient's plan for operative intervention.

The orthopaedic pre-operative ward assessment will include:

- A surgical suitability assessment.
- Discussion and preparation for theatre, including admission paperwork, obtaining consent and booking theatre.
- Consult with other specialties as appropriate.
- Venous thromboembolism (VTE) risk assessment and requirements post-surgery.
- Patient and/or decision maker/carer engagement

The orthopaedic pre-operative assessment is critical in understanding the patient's plan for operative intervention and by providing the opportunity to engage with the patient and/or carer regarding the procedure.

1.16 Pre-operative: Anaesthesia

In addition, to the Orthogeriatric Fracture Centre, there will be a consultant led anaesthesia service available onsite 7 days a week.

A pre-operative anaesthesia consultation will occur once the orthogeriatric and orthopaedic teams are satisfied the patient is ready for theatre.

1.17 Daily Multi-disciplinary Team Meetings

There will be daily multi-disciplinary team (MDT) meetings scheduled with nursing staff, all medical specialties and allied health professions at each Orthogeriatric Fracture Centre. The MDT meeting will be held separate toward rounds and attended to by all available parties. The MDT meeting will occur seven (7) days a week to enable improve clinical outcomes and maximise theatre utilisation regardless of the day the patient is in surgery.

To maximise theatre utilisation and efficiency, the MDT meetings will involve discussions about multi-disciplinary case management to determine the patient's clinical requirements are met. These meetings will also consider alternative treatments for patients who are not suitable for surgery.

- When a patient identifies as Aboriginal, the Aboriginal Liaison Officer will be encouraged to participate in the MDT meetings.

1.18 Discharge Planning

The patient and/or carer are encouraged to discuss with the consultant the patient's needs and have a full understanding of the hospital care after discharge.

Prior to a patient going into surgery, the patients will be required to complete a discharge plan.

The discharge plan will include a pre-fracture social assessment and include an estimated discharge date and location. In circumstances for complex patients, this process would be completed by a social worker. This process has been designed to ensure patient's utmost comfort and a streamlined transition to assist in rehabilitation after surgery.

- When a patient identifies as Aboriginal, an Aboriginal Liaison Officer will be encouraged to participate to ensure cultural awareness and social inclusion strategies are met.

1.19 Orthopaedic Trauma Theatres

Each metropolitan SA Health Orthogeriatric Fracture Centre will have an orthopaedic trauma theatre that operates 7 days a week between the hours of 0800 and 1600.

Patients who are suitable for surgery will be booked in on the same day or the next day as soon as practicable. Patients suitable for surgery who are transferred from a non-Orthogeriatric Fracture Centre will be booked in at the time of the patient's primary emergency presentation.

Patients who require additional medical treatment prior to surgery will be booked in once the patient is suitable for surgery. This is further explained in sections 1.21, 1.22 and 1.23 of this Model of Care.

1.20 Non-Surgical Hip Fracture Management

Patients who are not suitable for surgery will be given alternative treatments. Treatments that may be considered include palliative care strategies in alignment with the SA Health End of Life Care Model of Care (see section 1.24), consideration of a femoral catheter to provide ongoing nerve blockage as an alternative pain relief and surgical fixation.

Final care decisions will be made in collaboration with the patient and/or decision maker/carer following the MDT assessment and recommended treatment plan.

1.21 Peri-Prosthetic Fracture Management

A peri-prosthetic fracture is a broken bone that occurs around the previous prosthesis and can occur following the initial surgery. If a patient has this type of fracture, this will require additional time and surgical planning to appropriately manage the complexities associated with these cases. The surgeon who provides this surgery must be suitably skilled in hip fracture surgery and arthroplasty surgery as mentioned in this model of care.

1.22 Hip Fracture through Malignancy Management

Malignant tumours are cancerous tumours and are made of cells that grow out of control. Patients who are diagnosed with a hip fracture caused by malignant tumours are required to seek advice from an appropriate tumour service regarding what is the best surgical intervention to ensure the patient's best outcome. As this process is necessary, this will require additional time and appropriate surgical planning.

1.23 Hip Fracture with Complex Patient Management

There are some patients that fall under this model of care who require additional or complex patient management and treatment to ensure suitability for surgery to deliver best patient outcomes. Examples of where this would be required are patients receiving renal dialysis or is a previous organ transplant patient.

This type of hip fracture will affect the timing to theatre as additional time may be needed to ensure correct decision making and surgical planning to appropriately manage the complexities associated with these cases.

1.24 Resuscitation, End of Life Clinical Planning and Palliative Care

The early identification of patients potentially approaching the end of life is consistent with patient centred care as it:

- Allows for early discussions between the treating team, patient, Substitute Decision-Makers, Persons Responsible and family regarding resuscitation and end of life care.
- May clarify or change the goals of care which may in turn alter treatment that is provided to the patient.

The following triggers should be used to identify situations where clinicians should consider a conversation with the patient (if they have decision- making capacity) or SDM or Person Responsible (if they do not) regarding resuscitation and end of life care, and the **completion of a Resuscitation Plan 7 Step Pathway.**

STANDARD TRIGGERS THAT SHOULD PROMPT END OF LIFE DISCUSSIONS AND RESUSCITATION PLANNING

Standard triggers to be used in SA Health for recognition of someone who may benefit from a discussion about resuscitation planning are:

1. The patient, family/carer, Substitute Decision-Makers, Person Responsible or members of the interdisciplinary team express concern or worry that the patient is dying and/or has unmet end-of-life care needs.
2. Meet criteria of the Supportive and Palliative Care Indicators Tool (SPICT TM) which is a tool for identifying people at risk of deteriorating and dying (www.spict.org.uk/index.php);
3. The 'Surprise Question': the clinician asks him or herself, "Would I be surprised if this patient died in the next 12 months?'
4. A patient who has refused life-sustaining treatment either directly or in an Advance Care Directive (including in an Enduring Power of Guardianship, Medical Power of Attorney or Anticipatory Direction) or in an Advance Care Plan.
5. Observations than trigger or are likely to trigger the activation of a Medical Emergency Response (MER).

If a member of the health care team determines that a patient meets any of the above trigger criteria, they should approach the consultant doctor responsible for the patient, or their nominated delegate, to assess the appropriateness of a resuscitation planning discussion with the patient, Substitute Decision-Maker(s) or Person Responsible and the completion of a Resuscitation Plan 7 Step Pathway form.

Completion of a Resuscitation Plan 7 Step Pathway may lead to:

- A change in the goals of care and an alteration of the treatment plan to align with these goals.
- A determination and documentation that the patient is not for resuscitation and/or any treatment to prolong life.
- A decision regarding whether a Medical Emergency Response (MER) team should be called if the patient should acutely deteriorate in the future.

RESPONSIBILITY TO MAINTAIN THE COMFORT AND DIGNITY OF PATIENTS

If the patient is no longer for treatment to prolong life, or in situations where they are not for resuscitation but where a trial of treatment has a significant chance of failure, the medical practitioner MUST document a plan of treatment to maintain the comfort and dignity of the patient should they deteriorate. This could include:

1. writing up of medications to control symptoms such as pain and dyspnoea^
2. implementation of a palliative care protocol
3. or referral to the Specialist Palliative Care service

The Guidelines for the Pharmacological Management of Symptoms for Adults in the Last Days of Life Factsheet outlines recommended initial medications, doses, and administration regimens for the management of common symptoms in the last days of life. The guidelines can be used:

- in response to a patient suffering from distressing symptoms, and/or
- in anticipation of distressing symptoms developing.

If required, urgent phone advice can be obtained from Specialist Palliative Care Services: contact via the relevant hospital switchboard.

Intra-operative Care

All patients will receive the appropriate surgical intervention that will provide the patient with the best potential to return to pre-fracture function and mobility.

SA Health is committed to delivering quality patient care to enable best patient outcomes. The key to this is ensuring patients receive appropriate surgical intervention to best facilitate recovery. The intra-operative care component of this model of care includes the patients' intra-operative experience and the recovery unit.

1.25 Intra-operative: Anaesthesia

To ensure that the complexities of the older persons are considered, the anaesthetist that is in theatre must be appropriately experienced in orthogeriatric trauma anaesthesia.

Best anaesthesia practices include:

- Spinal anaesthesia if not contraindicated to limit post-operative delirium.
- Limit nerve block duration to best facilitate pain relief and early mobilisation.
- Appropriate fluid management to reduce intra and post-operative hypotension.
- Invasive monitoring, as appropriate.

1.26 Intra-operative: Orthopaedics

All orthopaedic trauma lists are to be a consultant led service. An appropriately skilled surgeon will complete this surgery.

SA Health requires any prostheses and/or consumable used in theatre to be listed on the SA Health state-wide orthopaedic contract unless there is a specific clinical need for an alternate product.

In accordance with the Australian and New Zealand Guideline for Hip Fracture Care[2] and in alignment with international best practice, a surgeon will use the surgical intervention which will provide the patient with the best chance of returning to their pre-fracture function and mobility. For example, the increased use total hip arthroplasty in high functioning patients who previously mobilised independently and consideration of the use of uncemented implants in patients that are at high risk of cement syndrome.

Patients in theatre will receive antibiotic prophylaxis, unless contraindicated, in accordance with the SA Health Surgical Antibiotic Prophylaxis Guideline – Orthopaedic & Spinal Surgery to reduce the incidence of subsequent infections in the wound, urinary and/or respiratory tracts.

Each patient will receive the most appropriate procedure for their condition which will provide the best outcome. For example, patients who are freely mobilised pre-fracture should be offered a procedure that enables them to fully weight bear first day post operatively.

VTE risk assessment and prophylaxis (mechanical and/or pharmacological), unless contraindicated, must be documented and communicated, to reduce the risks of postoperative pulmonary embolism and deep vein thrombosis.

1.27 Recovery Unit

Immediately after a patient leaves the theatre, they will be transferred to the recovery unit where they will receive high level monitoring until the patient can demonstrate that they have recovered from anaesthetic/theatre and are able to return to the ward for observations.

The time a patient spends in recovery will vary substantially. An average duration in recovery is two (2) hours. If there is a clinical need, or after four (4) hours, where the patient is not demonstrating medical stability, a referral to the Intensive Care Unit (ICU) or associated unit where a high level of ongoing observations are provided, is to be considered.

Key observations a patient must demonstrate, prior to returning to ward care are:

- Hemodynamically stable >1 hour.
- Pain controlled with established and documented ongoing pain management plan.
- Have Hb > 90 Point of Care (POC).
- Urine output >0.25ml/kg/hr (calculating based on patient estimated weight where actual weight has not been obtained at admission)

A patient will be assessed and cleared by a consultant anaesthetist, as medically stable, prior to the patient's return to the ward.

Post-operative Ward Care

Patients will receive a high level of post-operative care from multi-disciplinary clinicians to facilitate early mobilisation, ongoing pain management, fully supported discharge from acute care and maintained patient engagement.

SA Health is committed to delivering quality patient care to enable best patient outcomes. A key part of this is to ensure the patient is mobilised early post-operative and provided with multi-disciplinary care to prepare the patient to be discharged from the acute hospital environment.

1.28 Day of Surgery

Once a patient has been discharged from recovery and is returned to the ward, the patient will immediately commence rehabilitation and mobilisation to provide the patient with best chance of a full recovery. The patient will receive a post-surgery medical review completed by a consultant orthopaedic and/or consultant led orthogeriatric service. These post-surgery reviews will be completed at one (1) hour and at four (4) hours from when the patient returns to the ward. The medical assessment will include but is not exclusive to:

- Adequate and appropriate pain management.
- Wound site inspection.
- Ensuring that appropriate VTE prophylaxis and anti-microbial prophylaxis has been charted and given.

Where a medical assessment is completed by a junior orthopaedic and/or junior orthogeriatric doctor, there is a requirement that direct phone contact be made with the appropriate consultant with a complete patient update.

The patient will receive routine hourly nursing observations until the patient has received their second medical post-surgery assessment. From this point, the patient will revert to standard observations. Routine nursing observations are to include but is not exclusive to:

- Standard vital sign and observations (including neurovascular).
- Nutrition screening.
- Monitoring input and documenting on Food/Fluid balance chart.
- Pain score assessment.
- Wound care.
- Cognitive impairment screening.
- Ability to swallow.
- Pressure area care.
- Falls prevention.

The nursing staff on the ward will also encourage appropriate fluids, analgesia management and early return to oral intake.

The patient will remain on the default diet which is high protein, high energy with nourishing meals, snack and drinks (unless contraindicated) until the dietician has completed a nutritional assessment of the patient. If there are concerns about the person's ability to swallow, the patient will remain nil by mouth until speech pathology assessment, however this should not be prolonged.

If a patient returns to the ward before 1600 on the day of surgery, the patient should receive a physiotherapy review on the day or surgery. Consideration of rehabilitation plans will be discussed with the patient post-operatively.

Mobility is a key factor in patients returning to their optimal function level and mobilisation of patients the day of, or the day after, hip fracture surgery, and at least once a day thereafter is recommended, unless contraindicated. Mobilising means the person manages to stand and step transfer out of bed onto a chair or commode or walk. To promote the best changes of pre-fracture mobility and function between two (2) and four (4) hours from returning to the ward from recovery. Allow patients to bear weight as tolerated but avoid weight bearing if there is a clinical concern about the fracture, the fixation, or the likelihood of healing.

1.29 Ongoing Post-Operative Ward Care

A patient will receive a high level of care for the entire duration of acute admission. Ongoing post-operative care will commence day one post-operative.

The nursing staff will continue comprehensive care assessment and care planning:

- Patient's daily goals of care
- Vital sign observations (including neurovascular).
- Mental state and cognitive screening
- Nutrition screening and encouraging oral intake where indicated.
- Skin checks and pressure injury management.
- Falls prevention.
- Pain management.
- Wound care.
- Encourage mobilisation and function in accordance with section 1.31 of this model of care and to support the physiotherapist's specific patient rehabilitation plan.
- Bowel and bladder management

Early removal of urinary catheter ideally should occur 24 hours after surgery.

A patient will receive daily medical assessments 7 days a week from consultant led services.

The orthogeriatric medical assessment is to include but is not exclusive to:

- Delirium screening and management
- Recommended initial tool is 4AT (or other validated tool such as KICA).
    - Further cognitive assessments as required.
- Medical optimisation including falls, osteoporosis and bone health assessment.
- Secondary fracture prevention management including bone health assessment.
- Progress discharge management plan.
- Engagement of the allied health services required for patients' specific needs.
- Prepare individualised management and rehabilitation care plans.
- Patient and/or carer engagement of discharge planning.
- Day 2 post-operatively it is expected to confirm the appropriate discharge pathway for the patient and the discharge plan to be finalised.

The orthopaedic medical assessment is to include, but is not exclusive to:

- Surgical recovery.
- Mobility assessment.
- Wound care assessment.
- Patient and/or carer engagement.

1.30 Post-Operative Allied Health Service

A patient will be provided access to all allied and scientific health services (allied health services) that have been identified as required for the patient's specific needs. To provide a patient with the highest level of care required, allied health services will be available seven days a week between the core business hours as detailed in the industrial arrangements.

The following details the allied health services required for a hip fracture patient, acknowledging additional unlisted allied health services may be required for a patient's specific clinical need.

- When required, dietetics will undertake a nutritional assessment day 1 post-operatively to determine the patient's dietary requirements, including the ongoing need for nourishing mid-meals for patients with a must score ≥ 2 and work with the patient to ensure nutritional requirements are considered for discharge planning including the consideration for home nutritional support.

- Occupational Therapy will work with the patient and provide a range of assessments with the aim of increasing independence in function in activities of daily living on the ward and prepare the patient for discharge. Occupational Therapy assessment will inform discharge planning, including need for support, equipment, home modifications and other post discharge needs.

- Pharmacy will facilitate a complete pharmaceutical review of the patient's medications and consult with the orthogeriatric team to determine appropriate ongoing medications. Pharmacy will also be responsible for patient and/or carer education with ongoing medications when the patient is discharged.

- Physiotherapy will work with the patient to provide primary rehabilitation support with gait and balance re-education, increase mobility, increase independence and ongoing falls prevention. The physiotherapist will work with the multi-disciplinary and orthogeriatric team to develop the patient's specific rehabilitation plan including function and mobility goals once the patient has been discharged from the acute hospital environment.

- Social Work will undertake a comprehensive psychosocial assessment and link the patient and their supports to sustainable community services. Social workers will assist in the transition to other level of care e.g., aged care facility.

- Speech Pathology will be engaged as required to manage pre-existing or post-operative dysphagia or any new communication issues identified. If a palliative approach to patient management is being taken, the speech pathologist and dietitian will be involved to facilitate appropriate oral intake in keeping with any Advanced Care Directives, patients, or family wishes.

1.31 Mobility and Function Guidelines

Each patient's progress will vary substantially, and the following should be used only as a guideline at a minimum. If a patient does not have the capacity to meet the guidelines, it is to be documented in the patient's charts with rationale as to why the goal has not been achieved. Each attempt at mobilisation needs to be supported by clear clinical decision making, based on the clinician's assessment of the patient.

All clinicians involved in a patient's care will advocate for and encourage early mobilisation. Function and mobility are to be completed as tolerated, including gait and distance. This is to be documented in the patient's records.

Day One: Post-Operative
Mobility:

- Sit up in bed and dangle feet over bed edge between two and four hours post return to ward from recovery.
- Stand and step transfer out of bed onto a chair or commode, or walk.

Function:

- First meal to be directly supervised.
- Shower/sponge with assistance
- Upright and out of bed for one meal
- Actual weight to be obtained by weight chair.

Day Two: Post-Operative
Mobility:

- Sit out of bed twice a day for one hour.
- Mobilise 2 to 5 metres twice during the day using aids and under supervision.

Function:

- Shower with supervision
- Walk to toilet with supervision.
- Upright and out of bed for two meals

Day Three: Post-Operative
Mobility:

- Sit out of bed three times during the day for one hour.
- Mobilise 5 to 10 metres with supervision.

Function:

- Shower with supervision
- Walk to toilet with supervision.
- Upright and out of bed for all meals.

The daily ward mobility and function goals for a patient from day four post-operatively until acute discharge will be set by the patient alongside allied health clinicians to align with the patient's rehabilitation progress.

1.32 Patient Supported Discharge

A patient will continue to receive post-operative ward care until the patient is deemed as orthopaedically and medically stable, and appropriate for discharge from the acute hospital setting.

For a patient that is being discharged to an aged care facility, it is recommended a patient can demonstrate the following prior to their acute discharge:

- Vital signs are stable and appropriate.
- Pain controlled with oral analgesia.
- Surgical wound is clean and dry.
- Discharge location is ready and suitably equipped with aids and supports.
- Patient's medication assessment completed, and medication list (if appropriate) prepared.
- Have reasonably met patient/carer centred goals.
- Nutrition and pressure injury management as per patient usual or with clear plan in place
- Discharge planning is completed.
- Patient and/or carer educations and engagement completed.
- Patient can safely transfer with appropriate equipment, and/or have mobilised to a level that is appropriate to the patient. The ongoing mobility plan is clearly communicated upon discharge.

For a patient that is being discharged to a sub-acute rehabilitation service and/or discharged to a personal residence, it is recommended that a patient can demonstrate the following prior to their acute discharge:

- Vital signs are stable and appropriate.
- Patient is tolerating food and fluids or has an alternative means of accessing nutrition and hydration.
- Bowel and bladder habits resumed.
- Nil supplemental oxygen required in previous 24 hours.
- Pain controlled with oral analgesia.
- Progression toward patient centred goals related to mobility and function indicating likely return to pre-morbid environment.
- Surgical wound is clean and dry.
- Discharge location is ready and suitably equipped with aids and supports.
- Pressure Injury management plan in place
- Patient's medication assessment completed, and medication list (if appropriate) prepared.
- Discharge planning is completed.
- Patient and/or education and engagement completed.

Supported Discharge

A patient will be discharged from an acute hospital environment when they are medically stable. Each patient will receive ongoing rehabilitation, care plan, ongoing pain management and a contact support person upon a supported discharge.

A patient's discharge location will be dependent on their pre-fracture residence, their level of support at that residence and the patient's rehabilitation progress.

The patient's multi-disciplinary team will liaise with the patient and/or carers to assess the need for ongoing care options following their acute episode, including appropriateness for rehabilitation (both public and private services), admission to a Geriatric Evaluation Medicine (GEM) Unit, residential Transition Care Program (TCP), other sub-acute rehabilitation admission, returning home with additional care support with TCP or if necessary, placement in a high level care residential aged care facility.

1.33 Aged Care Facility

A patient whose pre-fracture residence is an aged care facility will return the same residence. When it is confirmed and acknowledged that the patient will receive the care, they need within the nursing home and the patient is safe for transfer, a day 1 post-operatively discharge may be considered. This discharge must have a comprehensive discharge plan and rehabilitation plan that is discussed and agreed with the nursing home that details the level of ongoing care.

1.34 Private Residence

A patient's whose pre-fracture residence is a private home including independent living communities will be supported to return to their home with the provision that an appropriate level of support is available. It is appropriate to consider a patient for a hospital discharge day 3 post-operatively with the assurance the patient will receive assistance, have appropriate aids and supports installed and/or available in the residence.

A patient who is returning to their personal residence will have a comprehensive discharge and rehabilitation plan. This plan will detail specific requirements with a referral to an appropriate ambulatory-based rehabilitation program including Day Rehabilitation or Rehabilitation in the Home service to assist rehabilitation within a community setting.

1.35 Sub-Acute Rehabilitation Services

Patients who are not able to return to their pre-fracture residence and are identified as requiring a higher level of rehabilitation support will be transferred to a sub-acute rehabilitation service such as a GEM unit, TCP environment or a private rehabilitation facility for the best chance of recovery.

A patient will be considered safe for a down transfer to a sub-acute service day three (3) post-operatively, this will ensure that a patient is in the environment that is best suited for the care that they require.

A patient who is being down-transferred to a SA Health rehabilitation service will have a detailed discharge plan with rehabilitation goals documented and recommendations for the specialist rehabilitation service to consider. The patient's rehabilitation plan will become the responsibility of the rehabilitation service.

1.36 Supported Discharge Requirements

A patient is to be discharged from the acute hospital setting into a fully supported environment regardless of discharge location. All discharge planning is to be multi-disciplinary to ensure that the patient's complete health and well-being is considered to ensure maximum potential for best patient outcomes associated with a full recovery.

A patient and/or carer will receive a high level of engagement and education from all clinicians that are involved with the patient's care that will include, but is not exclusive to:

- Patient's management and rehabilitation plans including:
    - Equipment required.
    - Mobilisation plan
    - Expected post-surgery function.
    - Recovery goals.
    - Pain management plan
    - Wound management.
    - Nutrition care
- Medication list, including a pharmacist consultation.
- Future falls prevention.
- Bone health and osteoporosis management.
- Community and social links.

When a patient is ready for discharge, the patient and/or carer will be fully informed by their clinicians and given the opportunity to ask any questions and have full understanding of the patient's journey to date, the details on their ongoing care plan and looking further forward. One specific key contact from their multi-disciplinary care team will be allocated for the patient and/or ongoing care provider to refer to as required.

When a patient is identified as Aboriginal, an Aboriginal Liaison Officer will be included in a patient's discharge.

A discharge letter will be provided to the patient at the time of discharge and provided to the patient's general practitioner or ongoing care provider within 48 hours. Where possible this should be uploaded to My Health Record. Information that may be included in the discharge letter is as follows:

- Patient's management plan.
- Patient's rehabilitation plan, including equipment required.
- Patient's medication schedule.
- Preventative initiatives.
- Information on VTE prophylaxis.
- Falls and osteoporosis management plan.
- Key contact person and contact information.
- Information about follow up process and any scheduled appointments.
- General patient information including:
    - Hip fracture injury and management.
    - Bone and wound care
    - Bone protection
    - Exercises
    - Diet
    - Injury prevention
    - Quit smoking.
    - Community links

1.37 End of Acute Hip Fracture Management Clinical Pathway

This Acute Hip Fracture Management model of care concludes at the point the patient is discharged from the Orthogeriatric Fracture Centre or acute hospital environment. It is important to note that a patient's journey is not complete, the patient's journey will continue under the appropriate rehabilitation model of care.

Upon the patient's discharge, their details will be uploaded onto the Australian Hip Fracture Registry within 48 hours of their discharge.

The follow up and the management of the post-surgical outpatients will be completed in alignment with the SA Health Fragility Fracture model of care (to be developed) and/or Orthogeriatric Fracture Centre's guidelines.

Key Performance Indicators

SA Health will monitor clinical performance to ensure the model of care is delivered to provide best patient care.

This section of the model of care articulates specifically what cohort of patients will be included within the reporting as well as details to how the model of care will be monitored and reported on.

1.38 Patient Profile

The patient profile used for data collection under this model of care is as follows.

- A patient who is 65 years or older; or who is 50 years or older and identified as an Aboriginal or Torres Strait Islander.
- A patient who is admitted to a public hospital as a public patient.
- A patient who has an Any Diagnosis of (S72.0x, S72.10, S72.11 or S72.2)
- A patient who had one of the following surgical procedures during their time of admission (4736600; 4751900; 4751900; 4752200; 4753100 or 4931500)
- A patient who has an extremal; cause code of a fall or diagnoses of tendency to fall; and
- LOS is between 1 and 30 days, inclusive.

1.39 KPI Performance Targets

There are two different targets that are applicable for monitoring an OFC's performance.
The first target is used during the implementation stage to allow clinicians to transition to the new model of care but still demonstrate an improved performance in the services provided to patients.
The second target is the long-term target which is to be used once the implementation stage and implementation review is completed within the OFC.

KPI Descriptor	KPI Target during implementation	KPI Target post-implementation
Average Length of Stay (days)	9	7
Average Time in Emergency Department (hours)	6	4
Percentage of patients to theatre within 36 hours of presentation	80%	90%
Percentage of patients seen by a physiotherapist day one post-operatively	90%	100%

1.40 Patient Reported Experience Measures

The key reported experiences are to be aligned with "The Consumer Experience " section of this Model of Care:

- The patient with a hip fracture will be directed to a specialist Orthogeriatric Fracture Centre; The patient will receive timely and effective pain management.
- The patient will be treated under an orthogeriatric shared model of care.
- The patient will receive appropriate surgical management in a timely manner.
- The patient will be supported with early mobilisation.
- The patient will have personalised discharge planning completed with a supported discharge; and
- The patient and/or carer will be regularly engaged by all care providers.

References

1. Australian Commission on Safety & Quality in Health Care
   Hip Fracture Care: Clinical Care Standards, September 2023
   Hip Fracture Clinical Care Standard | Australian Commission on Safety and Quality in Health Care

2. Australian and New Zealand Guideline for Hip Fracture Care
   Improving Outcome in Hip Fracture Management of Adults, September 2014
   ANZ-Guideline-for-Hip-Fracture-Care.pdf (anzhfr.org)

3. SA Health's Advance Care Directives Policy Directive, July 2014 Advance Care Directives for health professionals | SA Health

4. SA Health Internet Page for information regarding Resuscitation Plan 7 Step Pathway
   Resuscitation Plan 7 Step Pathway for health professionals | SA Health

5. SA Health's Consent to Medical Treatment and Health Care Policy Guideline
   http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/resources/policies/consent+to+medical+treatment+and+health+care+policy+guideline

Definitions and Acronyms

Aboriginal	The term Aboriginal is used respectively in this document as an all-encompassing term for Aboriginal and Torres Strait Island people and culture
ACD	Advanced Care Directives
4AT	Abbreviated mental test and acute change screening tool
ALOS	Average length of stay
CAT	Cognitive assessment tool
CBE	is a complete blood examination pathology test
Central Adelaide Local Health Network	Central Adelaide Local Health Network
COAGs	is a coagulation studies pathology
ECG	Electrocardiogram
EUC	is an electrolytes, urea and creatinine pathology test
FBC	is a full blood count pathology test
GEM	Geriatric evaluation medical unit
Hip Fracture	is defined as when a patient sustains a fracture between the subtrochanteric region and the femoral head within their femur
ICU	Intensive care unit
KPI	Key performance indicator
LARS	Local area reporting system
LHN	Local Health Network
MDT	Multi-disciplinary team
MER	Medical emergency response
MUST	Malnutrition universal screening tool
NALHN	Northern Adelaide Local Health Network
Orthogeriatric	is multidisciplinary medical care provided by both orthopaedic and geriatric medical specialists
Orthogeriatric Fracture Centre (OFC)	is developed as a centre of excellence in providing multi-disciplinary trauma care for when an orthogeriatric patient presents with an orthopaedic fracture
PG-SGA	Patient generated – subjected global assessment
POC	Point of care
RFDS	Royal Flying Doctors Service
SAAS	South Australian Ambulance Service
SALHN	Southern Adelaide Local Health Network
SDM	Substitute decision maker
SPICT TM	Supportive and palliative care indicator tools
T&S	is a type and screen pathology test
TCP	Transition care program
UR	Unique record
VTE	Venous thromboembolism

Appendicies

I. Hip Fracture Care: Clinical Care Standard 2023
Published by the Australian Commission of Safety and Quality in Health Care

II. Australian and New Zealand Guideline for Hip Fracture Care; Improving Outcomes in Hip Fracture Management of Adults, September 2014
Published by the Australian & New Zealand Hip Fracture Registry

III. Consumer Guide: Hip Fracture Clinical Care Standard

IV. Hip Fracture Admission – SUNRISE Acronym Expansion Template

V. Orthogeriatrics Admission – SUNRISE Acronym Expansion Template SA Health's Discharge Planning Template

VI. 4-hour Post-op Check – SUNRISE Acronym Expansion Template

Appendix I: Hip Fracture Care: Clinical Care Standards [1]

Published by the Australian Commission of Safety and Quality in Health Care

The full document can be downloaded from Hip Fracture Clinical Care Standard | Australian Commission on Safety and Quality in Health Care

The following information has been extracted from the above-mentioned document.

The Clinical Care Standards aim to support the delivery of appropriate clinical care, reduce unwarranted variation in care, and promote shared decision making between patients, carers and clinicians.

A Clinical Care Standard is a small number of quality statements that describe the clinical care that a patient should be offered for a specific clinical condition. The Clinical Care Standards for Hip Fracture Care are as follows:

- **Quality Statement 1 – Care at presentation**
  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.
- **Quality Statement 2 – Pain Management**
  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.
- **Quality Statement 3 – Orthogeriatric model of care**
  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 address malnutrition, frailty, cognitive impairment, and delirium.
- **Quality Statement 4 – Timing of Surgery**
  A person with a hip fracture receives surgery within 36 hours of their first presentation to hospital.
- **Quality Statement 5 – Mobilisation and weight-bearing**
  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.
- **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.
- **Quality Statement 7 – Transition from hospital care**
  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, this plan is provided to the person and communicated with their general practice and other ongoing clinicians and care providers.

Appendix II: Australian and New Zealand Guideline for Hip Fracture Care; Improving Outcomes in Hip Fracture Management of Adults

Published by the Australian & New Zealand Hip Fracture Registry

The full document can be downloaded from ANZ-Guideline-for-Hip-Fracture-Care.pdf (anzhfr.org)

The following information has been extracted from the above-mentioned document.

The Australian and New Zealand Guideline for Hip Fracture Care is designed to help professionals providing care for people with a hip fracture to deliver consistent, effective, and efficient care. Every person with a hip fracture should be given the best possible chance of making a meaningful recovery from a significant injury and strategies should be put in place to reduce the occurrence of future falls and fractures. The recommendations reflect the journey of a person with a hip fracture and consider their perspective, as well as the perspective of their family and carer.

The recommendations that are included within the ANZ Guideline for Hip Fracture Care are as follows:

Section 3: Diagnosis and pre-operative care

3.2 - Analgesia

- The choice and dose of analgesia should be age appropriate with close monitoring for associated side effects.
- Offer paracetamol every 6 hours unless contraindicated.
- Offer additional opioids if paracetamol alone does not provide sufficient pain relief.
- Consider adding nerve blocks if systemic analgesia does not provide sufficient pain relief, or to limit opioid dosage.
- Caution is advised when considering the use of non-steroidal anti-inflammatory drugs in what is predominantly an older population.

3.3 – Timing of surgery

- Perform surgery on the day of, or the day after presentation to hospital with a hip fracture.

Section 4: Peri-operative care

4.2 – Surgeon seniority

- Schedule hip fracture surgery on a planned list or planned trauma list where an appropriately skilled team is available to undertake the procedure.

Section 5: Operative intervention

5.1 – Displaced intracapsular fractures

- Use a femoral stem design other than Austin Moore or Thompson stems for arthroplasties.

5.2 – Use of cement in arthroplasty

- Use cemented stem implants in patients undergoing surgery with arthroplasty.

5.3 – Extracapsular fracture fixation

- Both extramedullary sliding hip screw devices and intramedullary nails are suitable for use in patients with trochanteric fractures above and including the lesser trochanter (AO classification A1 and A2).

Section 6: Post-operative mobilisation strategies

6.1 – Early versus delayed mobilisation

- Unless medically or surgically contraindicated, mobilisation should start the day after surgery. Offer patients a physiotherapy assessment.

Section 7: Models of care

7.1 – Hospital-based multidisciplinary rehabilitation versus usual care

- From admission, offer patients a formal, acute orthogeriatric service that includes all of the following:
    - Regular orthogeriatrician assessment
    - Rapid optimisation of fitness for surgery
    - Early identification of individual goals for multidisciplinary rehabilitation to recover mobility and independence, and to facilitate return to pre-fracture residence and long-term wellbeing.
    - Early identification of most appropriate service to deliver rehabilitation.
    - Continued, coordinated, orthogeriatric and multidisciplinary review and discharge planning liaison or integration with related services, including falls prevention, secondary fracture prevention, mental health, cultural services, primary care, community support services and carer support services.

7.2 – Community-based multidisciplinary rehabilitation versus usual care

- Consider early supported discharge provided the patient:
    - Is medically stable and
    - Has the mental ability to participate in continued rehabilitation and
    - Is able to transfer and mobilise short distances and
    - Has not yet achieved their full rehabilitation potential, as discussed with the patient, carer and family.
- If unable to meet the criteria for early supported discharge, consider in-patient rehabilitation for those in whom further improvement with a structured multidisciplinary programme is anticipated.

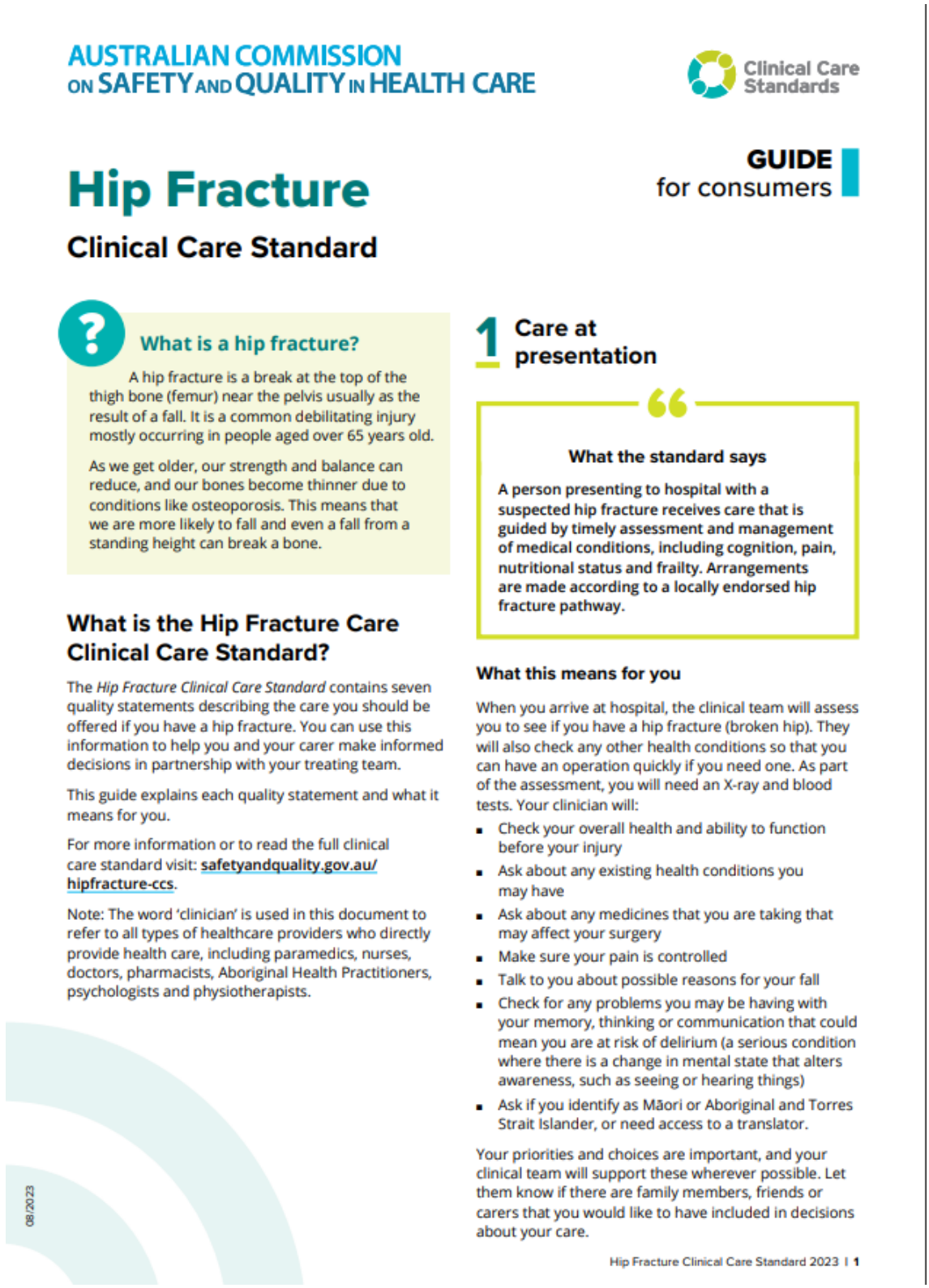
Section 8: Patient and carer perspectives

8.1 – Patient and carers view and information

- Offer patients (or, as appropriate, their carer and/or family) information about treatment and care including:
    - Diagnosis
    - Aims of care
    - Choice of anaesthesia
    - Choice of analgesia and other medications
    - Surgical procedures
    - Possible complications
    - Post-operative care
    - Rehabilitation programme
    - Future fracture prevention
    - Healthcare professionals involved in their care.
    - How to care for the patient, especially after discharge
    - Support and services to assist the carer/family.
- Information should be available in a range of media and in appropriate languages.

Appendix III: Consumer Guide: Hip Fracture Clinical Care Standard

This guide should be made available for consumers to further understand their rights and the quality of care they are to expect from their health care services. Guide for Consumers: Hip Fracture Clinical Care Standard



AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Clinical Care Standards

Hip Fracture

Clinical Care Standard

GUIDE for consumers

What is a hip fracture?

A hip fracture is a break at the top of the thigh bone (femur) near the pelvis usually as the result of a fall. It is a common debilitating injury mostly occurring in people aged over 65 years old.

As we get older, our strength and balance can reduce, and our bones become thinner due to conditions like osteoporosis. This means that we are more likely to fall and even a fall from a standing height can break a bone.

What is the Hip Fracture Care Clinical Care Standard?

The *Hip Fracture Clinical Care Standard* contains seven quality statements describing the care you should be offered if you have a hip fracture. You can use this information to help you and your carer make informed decisions in partnership with your treating team.

This guide explains each quality statement and what it means for you.

For more information or to read the full clinical care standard visit: **safetyandquality.gov.au/hipfracture-ccs**.

Note: The word 'clinician' is used in this document to refer to all types of healthcare providers who directly provide health care, including paramedics, nurses, doctors, pharmacists, Aboriginal Health Practitioners, psychologists and physiotherapists.

08/2023

1 Care at presentation

What the standard says

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.

What this means for you

When you arrive at hospital, the clinical team will assess you to see if you have a hip fracture (broken hip). They will also check any other health conditions so that you can have an operation quickly if you need one. As part of the assessment, you will need an X-ray and blood tests. Your clinician will:

- Check your overall health and ability to function before your injury
- Ask about any existing health conditions you may have
- Ask about any medicines that you are taking that may affect your surgery
- Make sure your pain is controlled
- Talk to you about possible reasons for your fall
- Check for any problems you may be having with your memory, thinking or communication that could mean you are at risk of delirium (a serious condition where there is a change in mental state that alters awareness, such as seeing or hearing things)
- Ask if you identify as Māori or Aboriginal and Torres Strait Islander, or need access to a translator.

Your priorities and choices are important, and your clinical team will support these wherever possible. Let them know if there are family members, friends or carers that you would like to have included in decisions about your care.

Hip Fracture Clinical Care Standard 2023 | 1

Appendix IV: Hip Fracture Admission – SUNRISE Acronym Expansion Template

This template can be used as a guide for creating local acronym expansions. These can be modified to suit the needs of users or can be copied exactly as detailed below.

Suggested acronym names: .nofadmit or .nofortho

Orthopaedic NOF Admission - #### (reg) for #### (consultant)

PC:

####

Social Hx:

from ####

normally ####, currently mobilising with ####.

smoker

Etoh ####

HPC:

(estimated time and mechanism of injury)

PMHx:

####

Meds:

####

If on DOAC – dose and time last taken

Allergies: #### - #### reaction

Advanced Care Directive = ####

Examination:

Currently ####

Orientated to ####

A: own, patent

B: s/v on ####, RR ####, nil accessory muscles, chest ####

C: ECG ####

D: disability, MSK, Neuro ####

E: temp, skin ####

F: urine/IVT/FBC ####

G: gastro, BGL ####

Investigations:

####

Bloods, ####

Hb ####

Na ####, K ####, Alb ####,

WCC ####, CRP #### (if relevant),

If on DOAC – send anti Xa level, INR, APTT

Assessment:

####

Issues:

####

Plan:

Meds as charted

VTE prophylaxis, Hold DOAC – document time of last dose

Routine observations, baseline ECG, bloods ####

eat/fast, strict fluid balance chart, monitor bowels

Mobilise ####

Allied health input ####

Anaesthetic review #####

Surgical plan: ####

Consented: #### (if 3rd party name and contact details)

Equipment: (delete if no equipment ordered)

Liaise with Orthogeriatrics to complete admission

Time: #### (contact orthgeriatrics registrar in-hours, A/hours: on-call geriatrician)

Appendix V: Orthogeriatrics Admission– SUNRISE Acronym Expansion Template

This template can be used as a guide for creating local acronym expansions. These can be modified to suit the needs of users or can be copied exactly as detailed below.

Suggested acronym names: .nofadmitgeris or .noforthogeris

Orthogeriatrics admission note

PRESENTING COMPLAINT AND HISTORY OF FALLS

####

FALLS RISK FACTORS

Previous falls/ #

Polypharmacy: regular =5 meds: YES/NO

Visual impairment: YES/NO

Urinary/faecal incontinence: YES/NO

Hearing Impairment: YES/NO

Postural dizziness: YES/NO

Cognition: delirium / cognitive impairment / dementia

Patient problem list

####

Medication list

####

Allergies list – pull through allergies

SOCIAL HISTORY

Smoking: #### Alcohol: ####

Residence: Home / RACF / Home care service (choose) shower / cleaning / medications / bladder / bowel care

Living situation: (eg alone, with family etc) ####

Mobility (choose): Independent (no aid) / Stick / 4WW/frame / Other ####

Baseline diet and fluids:

Pressure area? YES / NO Details: ####

Pull through vital signs

Summary of Physical Exam

####

4AT score: #### (open 4AT document and complete – record score here also)

Clinical Frailty Score: ####

ACTIVE ISSUES and PLAN:

#NOF secondary to fall

PLAN: ####

Analgesia - fascia iliacus nerve block in ED: Y/N ####

PLAN: ####

Cardiovascular - ####

PLAN: ####

Anticoagulation: DOAC: drug name:, indication: ,time and date of last dose: , drug level: apixaban/rivaroxaban , or direct thrombin time for dabigatran:

PLAN:

Respiratory - ####

PLAN: sit patient up as tolerated, monitor for signs of HAP, ####

Renal - ####

PLAN: Fluids, and ####

Cognition - (Document Hx of MCI/neurodegenerative history/ delirium ####

PLAN: 4AT SMMSE, Clock face, interventions to prevent and treat delirium including:

*For patients: give informant form and delirium info sheet

*Regular orientation

*Ensure patient has sensory aids

*Medication review

*Correction of dehydration, malnutrition and constipation

*Avoid hypoxia

*Pain assessment and management

*Promote sleep and avoid sleep disturbance

*Nursing: alert nursing staff regarding delirium management protocol

If 4AT =4: requires further medical assessment and exclude reversible causes of delirium

Medication review - ####

PLAN: ####

Endocrine (Is patient on oral hypoglycaemic/insulin? If yes, please refer to preoperative diabetes guidelines

PLAN: ####

GIT and Genitourinary (including constipation) - ####

PLAN: Regular aperients, IDC removal when sitting upright and commenced mobilisation (within 24 hours), ####

VTE prophylaxis: enoxaparin/heparin

Nutrition - ####

PLAN: Wt: #### Ht: #### BMI: #### e-MUST score: ####

Delete if not relevant:

MUST score = 0 or 1, order HEP diet

MUST score = 2+, order HEP Diet and referral to Dietetics indicated

Pre-morbid dysphagia requiring modified consistency diet and/or fluids – referral to Speech Pathology indicated

New swallowing concerns during admission – referral to Speech Pathology indicated

MINIMISE FASTING (NOF supplement to be given up to 2 hours prior to scheduled surgery if not contraindicated)

Skin Integrity - pressure area ####

PLAN: Dynamic pressure relieving mattress, ####

Fall - ####

PLAN: medication change ####/cognition/sensory aids

Osteoporosis: calcium & vitamin D/bisphosphonate/denosumab/romozosumab/teriparatide/none

PLAN: (including additional investigations requested) ####

PLAN Discussed with Orthogetriatrician YES / NO Name: ####

Patient IS / IS NOT medically stable to proceed to surgery (if No, outline issues) ####

Discussed with duty Anaesthetist: Time: #### Name: ####

Discussed with Orthopaedic registrar/RMO: Time: #### Name: ####

OUTCOME after discussion: Delay surgery / Proceed to Theatre / Not for surgery

Hip fracture registry: patient information statement given and explained to patient / family YES / NO

Appendix VI: 4-hour Post-op Check – SUNRISE Acronym Expansion Template

This template can be used as a guide for creating local acronym expansions. These can be modified to suit the needs of users or can be copied exactly as detailed below.

Suggested acronym names: .nof4hourpostop or .nofpostopcheck

4- Hour NOF Check acronym expansion (NB – pull through vital signs into the note)

S/: ####

O/: ####

A/:

WOUND: active bleeding: YES / NO Increasing Strikethrough: YES / NO

Heart Sounds: ####

Chest Anterolateral Examination: ####

Abdomen: ####

Calves Soft Non tender: YES / NO If no please state: SCUDs in situ: YES / NO

Dorsal Pedal Pulses Palpable: Left: YES/NO

Right: YES/NO ####

Neurovascular Status: ####

PLAN:

Charting of 1L of Fluid over 16 hours: ####

Fluids charted: #### or Oral Intake: ####

VTE Prophylaxis as per protocol: ####

If Strikethrough/bleeding contact Ortho Registrar regarding advice on whether to withhold DVT prophylaxis: Yes/No

Blood form request for day 1 post op bloods - CBE<EUC, LFT, CA/Mg/PO4: (Form in: YES/NO) ####

TFT's/Iron Studies/B12/folate/vitamin D already requested (check results and enter value): ####

Notify orthogeriatrics if urine output <0.5mL/kg/h:####

For more information

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Confidentiality-I1-A1

www.ausgoal.gov.au/creative-commons

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SA Health