

# Clinical Practice Framework

## *Trauma in older adults*



Improvement |



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Patient Safety |



Clinician Leadership |



Innovation



**Queensland**  
Government

## Trauma in older adults

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Endorsed by: Queensland Dementia, Ageing, and Frailty Clinical Network Steering Committee and Queensland Trauma Clinical Network Steering Committee

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### **Disclaimer:**

This framework is intended as a guide and provided for information purposes only. The information has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation. No assurance is given that the information is entirely complete, current, or accurate in every respect.

The framework is not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the guideline, taking into account individual circumstances, may be appropriate.

This framework does not address all elements of standard practice and accepts that individual clinicians are responsible for:

- Providing care within the context of locally available resources, expertise, and scope of practice
- Supporting consumer rights and informed decision making, including the right to decline intervention or ongoing management
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary
- Ensuring informed consent is obtained prior to delivering care
- Meeting all legislative requirements and professional standards
- Applying standard precautions, and additional precautions as necessary, when delivering care
- Documenting all care in accordance with mandatory and local requirements

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# Initial emergency department management of trauma in older adults

Early recognition of adult patients age over 65 years (Aboriginal & Torres Strait Islander age over 55 years) who present with low energy trauma

Follow Advanced Trauma Life Support/Early Management Severe Trauma guidelines for initial assessment and management of all trauma patients

## Assessment and management

- Arrange early review by a senior clinician to facilitate assessment, investigations, and management and disposition planning
- Proactively prescribe analgesia (regular and as required), laxatives and antiemetics
- Low threshold for computerised tomography (CT) imaging and full trauma survey
- Evaluate for underlying medical causes
- Delirium screening and management
- Frailty screening
- Advance care planning (statement of choices, acute resuscitation plan, advance health directive)
- Early referral to Geriatric Emergency Department Initiative (GEDI)/Residential Aged care Support Service (RASS) and allied health
- Refer to pharmacy, if available, for medication reconciliation and review
- Consider transfer to a major trauma centre and ensure early activation of the retrieval process through **Retrieval Services Queensland (1300 799 127)** where applicable

## Key considerations

- Older trauma patients may not present with an obviously significant mechanism of injury
- Look for injury in older adults post trauma who cannot walk or have new confusion
- Vital sign derangement can be blunted or absent, due to a combination of any/all of altered physiology, co-morbidities and polypharmacy
- Low energy mechanisms are more likely to lead to injury in older adults and high energy mechanisms are more likely to lead to significant and possibly life-threatening multi-system injury
- Consideration should be given to whole body CT scanning in patients unable to give a reliable history or who are difficult to examine
- Consider red-flag comorbidities and medications (e.g., anticoagulants, dementia, osteoporosis)

## Patient journey

### Discharge:

- Ensure a discharge letter is completed including an analgesic management plan
- Contact next of kin (NOK) and/or enduring power of attorney (EPOA)
- Discuss safety netting and symptoms to look out for with patient/carer to return to hospital

### Short Term Treatment Area (STTA):

- Ensure pre-hospital regular and as required medications are prescribed
- Ensure ongoing analgesia is prescribed
- Functional assessment (psychosocial, cognitive, and mobility)
- Contact NOK and/or EPOA
- Notify Trauma or Emergency Senior Medical Officer (SMO) if concerns after STTA assessment

### Ward:

- Admission to either a surgical or medical ward bed will be dependent on local patient admission procedures. The patient management should be supported by the appropriate treating team/s.
- Early geriatrician or general physician input

## Transfer to major trauma centre

- Consider transfer to a major trauma centre for patients whose injuries meet referral criteria - as per local guidelines and ensure early activation of retrieval with Retrieval Services Queensland (RSQ) as appropriate.

## Establish goals of care

- Clinicians should consider integrating injury severity and treatment options with known patient wishes (communicated via Statement of choices/Advance Health Directive) or expressed patient choices from the person and/or their next of kin (NOK)/enduring power of attorney (EPOA) in guiding advance care planning discussions, especially when prognosis is poor.
- Age alone should never be used as the sole determinant to guide care.

# Multidisciplinary team ongoing management of trauma in older adults

Trauma in older adults refers to patients with trauma who are aged over 65 years or over 55 years for Aboriginal and Torres Strait Islander people

## Analgnesia and pain

Ensure regular and as required analgesia is prescribed in conjunction with aperients

- **Simple analgesia** - e.g., Paracetamol (age/weight appropriate dose)
- **Opioids** – as guided by patient need or/and clinician preference. Consider regular opioids for patients with cognitive issues or delirium who may be unable to ask for pain relief
- **Other modalities of analgesia** - Regional block and patient controlled analgesia (PCA) should be considered where clinically appropriate

If pain remains uncontrolled consider referral to acute pain service if available and re-assess for undiagnosed injuries.

In people with cognitive impairment consider use of pain assessment tools e.g., [Abbey pain scale](#), [PAINAD](#) (Pain Assessment in Advanced Dementia).

## Delirium

- All older adults with trauma should have screening for delirium using a [delirium screening tool](#) i.e. [4AT](#).
- Delirium prevention strategies include minimising [modifiable risk factors](#) and treating underlying conditions that put patients at risk for delirium.
- If delirium is suspected or diagnosed, suggest [early medical review with multidisciplinary input](#) and commence multi component non-pharmacological management.

## Frailty

- Patients should be screened for frailty. Early assessment and identification of patients with frailty is essential to optimise their care by involving interprofessional teams and implementing focused management plans.
- The [Clinical Frailty Scale \(CFS\)](#) is the standard frailty screening tool used across Queensland Health

## Goals of care/Advance Care Planning/End of life Care

- Does the person have any Advance Care Plan (ACP) documents e.g., Advance Health Directive, Enduring Power of Attorney, statement of choices
- Where no ACP documents exist assess whether the person can partake in an ACP discussion or whether supported or substitute decision making is needed
- Confirm the person's preferences and goals for current and future treatment

## Prevention of complications

- Early comprehensive geriatric assessment and management can prevent complications
- Early documented plan for mobilisation
- Early multidisciplinary team input
- Early medication reconciliation and review should be conducted by a pharmacist or in consultation with a pharmacist (where available)
- Early oral intake/nutrition screening and referral to dietitian
- Alcohol and substance dependence screen (refer to local hospital guidelines regarding alcohol withdrawal)
- Regular aperients to reduce constipation
- Venous thromboembolism prophylaxis (chemical and/or mechanical) according to hospital guidelines
- Pressure area assessment/skin assessment and plan
- Cognitive engagement and regular re-orientation

## Discharge planning

- Discharge planning commences on presentation to the Emergency Department, with ongoing discharge planning while admitted
- Liaise with multidisciplinary team on any barriers to discharge such as mobility, carer support, home environment, return to work/activity limitations
- Subacute care and rehabilitation are essential services for improving health outcomes of older adults associated with injury and hospitalisation
- Rehabilitation involves evaluating the patient's functional needs and establishing goals for improved function to improve the patient's level of independence

## 1. Introduction

There is an absolute and relative increase in the number of older adults with traumatic injury presenting to Queensland Health hospitals. In Australia, out of all trauma cases, older adult trauma contributes to the largest number of deaths and adverse outcomes in hospital (1). Low velocity, low impact and small forces can provide a misleading assumption of injuries of low significance in older adults. Therefore, there is a need to ensure that provision of trauma care aligns both clinically and organisationally to meet the needs of older adults and deliver optimal care to patients. Older adults who sustain injury experience worse outcomes, higher mortality and poorer quality of life post-injury when compared to younger people with the same injury, due to existing comorbidities, polypharmacy and frailty (2-4). The trauma activation criteria, 'trauma alert' within the Emergency Department (ED) utilises the mechanism, speed or impact of injury, and therefore may not be activated in the case of an older person suffering a low-impact injury as it does not meet the threshold. The identification and medical management of specific presenting injury/injuries follows; however, it often does not identify and reverse the associated complexity and decline in functional ability of older adults who are at greater risk of deterioration.

Specific pathways for older adult trauma have shown decreases in hospital length of stay and rates of complications (5). Therefore, the implementation of a designated trauma care pathway to care for older adult trauma patients should be considered. The age cut off for older adult trauma is poorly defined in the literature (6). It is important to consider the patient's age in the context of their overall health when determining their relative risk of injury following trauma than to consider age in isolation. For the purposes of this framework, older adult trauma refers to patients presenting with trauma who are over the age of 65 years or for Aboriginal and Torres Strait Islander people over the age of 55 years.

This Clinical Practice Framework – Trauma in older adults describes core principles for the management of traumatic injuries in older adults who present to Queensland Health Hospital and Health Services, including rural and remote facilities. These principles aim to assist clinicians to optimally care for older adults who present with trauma and to ensure continued improvements in their care, processes, outcomes, and experiences.

## 2. Background

### Mechanisms of trauma in the older adult

Potential for trauma is omnipresent for older adults. Falls from a standing height or less are the leading cause of trauma-related mortality in older adults, followed by motor vehicle crashes (7). Low energy falls are most likely to occur inside the home. Regardless of the mechanism involved older adult trauma patients experience higher mortality, longer intensive care unit (ICU) and hospital stays than their younger counterparts (8, 9).

### Anatomical and physiological changes with ageing

Anatomical and physiological changes of ageing places an older person at greater risk of injury and blunts their physiological response to the injury, thus masking its severity. Table 1 below outlines the impacts of ageing on a primary assessment of a trauma patient.

**Table 1: Impacts of ageing on trauma assessment and management (10)**

	Impacts of ageing	Clinical Implication
<b>Airway</b>	Increased incidence of: <ul style="list-style-type: none"> <li>• Edentulous</li> <li>• Arthritis of temporomandibular joints and/or cervical spine</li> </ul>	Anticipate potential for difficult airway through reduced mouth opening/neck mobility; difficulty in bag-valve-mask ventilation may be reduced by leaving dentures in situ with removal for laryngoscopy
<b>Breathing</b>	Reduced respiratory reserve secondary to reduced respiratory muscle strength, vital capacity, compliance of chest wall and increased residual volume	<ul style="list-style-type: none"> <li>• Early supplemental oxygen and respiratory support; apnoeic oxygenation for intubation</li> <li>• Early incentive spirometry (if no contraindications) to reduce atelectasis</li> <li>• Ensure optimal analgesia to reduce splinting of respirations</li> </ul>
<b>Circulation</b>	<ul style="list-style-type: none"> <li>• Increased peripheral vascular resistance</li> <li>• Decreased cardiac sensitivity to beta-adrenergic stimuli (intrinsic and/or via medications such as beta-blockers) and reduced baroreceptor sensitivity, with resultant blunting of usual tachycardic response to hypovolemia</li> <li>• Increased reliance on stroke volume for rise in cardiac output</li> <li>• Reduced pain sensation and increased abdominal wall laxity</li> <li>• Increased incidence of primary or secondary cardiac ischemia</li> <li>• Increased pre-morbid use of antihypertensives, antiplatelets, and anticoagulant agents</li> </ul>	<p>Increased risk of delays to recognition of shock</p> <p>Early identification of shock through:</p> <ul style="list-style-type: none"> <li>• Careful physical examination</li> <li>• Metabolic markers of tissue hypoperfusion (e.g., BD &lt;-6)</li> <li>• Timely identification of sources of haemorrhage through above plus extended FAST scan and low threshold for pan-CT scan</li> <li>• Timely achievement of haemostasis</li> </ul> <p>Need for early fluid resuscitation to augment ventricular filling</p>
<b>Disability</b>	<ul style="list-style-type: none"> <li>• Cerebral cortical atrophy with resultant increased susceptibility of bridging veins to shearing and subdural haemorrhage</li> </ul>	Increased incidence of intracranial haemorrhage in the setting of normal GCS
<b>Exposure</b>	Premorbid malnutrition, immunosenescence	<p>Increased risk of</p> <ul style="list-style-type: none"> <li>• Hypothermia</li> <li>• Pressure injuries</li> <li>• Infection</li> </ul>

BD, base deficit; CT, computed tomography; FAST, Focused Assessment with Sonography in Trauma; GCS, Glasgow Coma Scale

## **Older adults in the Queensland trauma system**

Occurrences of trauma in older adults is substantial, both in number of cases and as a proportion of total cases. In Queensland, over one-third of major trauma is in the over 65 age group and predominantly female (11). Some sites in Queensland are commencing or have already developed localised alert systems to recognise the seriousness of many injuries in older people from low velocity and low impact trauma.



### 3. Assessment

Older adults are more susceptible to incidents of trauma, especially low energy or innocuous traumatic mechanisms which can lead to major injuries. Older adults with trauma are frequently under-triaged both in the prehospital setting and in the ED (12). Assessment of older adults requires a multi-specialty and interdisciplinary approach as trauma may have been precipitated by a new medical event, underlying co-morbidities, and frailty.

#### Identification of older adult trauma at presentation

Early assessment and identification of vulnerable patients is critical to optimising outcomes in older adult trauma patients (13). Hospitals and health services should consider implementing a process for identifying older adults who present following a traumatic mechanism. Hospitals and health services should consider screening for frailty at triage using a validated tool such as the [Clinical Frailty Scale \(CFS\)](#).

#### Clinical examination

The immediate assessment of the patient should be prioritised according to the Early Management of Severe Trauma (EMST) or Advanced Trauma Life Support (ATLS) principles (14, 15).

##### Primary Survey

This should be conducted as soon as possible to detect serious life-threatening injuries that require immediate intervention. This may be required to be reassessed multiple times.

##### Secondary survey

This is completed following the primary survey and after the patient has been stabilised. It includes a thorough review of the patient history and a full head-to-toe clinical examination to determine if any further assessment such as additional imaging and pathology is required.

##### Tertiary survey

This should be completed within 24 hours of admission or as soon as practicably appropriate, to find any undetected or progressively evolving injuries (16). This would include a complete physical re-examination of the patient, along with re-evaluation of laboratory and radiological findings. If the patient is intubated when the tertiary survey is undertaken, it is repeated after the patient is extubated.

#### Diagnostic imaging

Older adults are at increased risk of having missed diagnosis of severe injury; clinicians should have a lower threshold for targeted imaging in older adult patients who present with trauma using computerised tomography (CT). Older adults with trauma who cannot be assessed adequately (e.g., intubated, confused, or agitated) should be imaged appropriately as directed by a senior clinician and in keeping with the person's goals of care. When performing CT in this population, it is important to consider factors such as a person's renal function, however this needs to be balanced with the clinical need for contrast to define injuries.

Where a CT scanner is not available shared decision making should be undertaken with the patient and their family about the benefits and risks of transfer to a larger centre to obtain imaging.

## Pathology

Standard laboratory investigations should be strongly considered in all older patients with trauma. This includes assessment of haemoglobin, platelets, renal function and electrolytes, and where relevant coagulation studies. Other investigations should be guided by patient need and clinician preference.

## Comprehensive geriatric assessment

Older adults with trauma benefit from early interdisciplinary care beginning in the ED and continuing throughout their hospital stay and back into the community (17). This interdisciplinary team approach can address trauma-related injuries, associated symptoms and functional changes as well as managing medical complications, geriatric syndromes and psychosocial needs.

Comprehensive geriatric assessment and management (CGA) is a geriatrician-led multidisciplinary bio-psycho-social approach to a person's health (18). Early CGA is associated with reduced in-patient mortality and length of stay in critical care for older people with serious injury admitted to major trauma centres (19, 20). Older adult trauma patients should be referred to hospital [Geriatric Emergency Department Initiative \(GEDI\)](#) or [Residential Aged Care Support Service \(RASS\)](#) services, where available, to perform CGA in the ED.

Early engagement with a geriatrician, where available, should be strongly encouraged to coordinate CGA. Allied Health (physiotherapy, occupational therapy, social work, pharmacy, dietetics, speech pathology) and geriatric medicine trained nurses are key team members in delivering CGA. Early intervention can prevent hospital acquired complications, assist with a patient's journey through hospital, and guide discharge planning.

## 4. Management Principles

### Key considerations in the older adult

#### Baseline Function

Knowing a person's baseline function helps the healthcare team plan with a person for their recovery. In this context, function is considered as personal activities of daily living (PADL) and instrumental activities of daily living (IADL). A significant change in a person's functional status at presentation post injury compared to baseline could indicate missed fracture or other injuries and should prompt evaluation. Knowing the difference between a patient's baseline and current function helps with discharge planning e.g., whether a person will need rehabilitation or increased services in the community.

#### Mechanism of injury and future injury prevention

In older adult trauma patients, it is important to determine the mechanism of injury that may have precipitated presentation in order to identify and treat modifiable risk factors to prevent complications and re-presentation. All older adults presenting with trauma from a fall should have early multidisciplinary clinician input with a view to conducting a multifactorial falls assessment during hospital admission. A personalised, multicomponent falls risk prevention plan should be developed including management of falls-related issues such as osteoporosis treatment and appropriate follow up as needed (21).

#### Frailty

Frailty reflects an increased vulnerability to adverse health outcomes for individuals of the same chronological age (22). In the hospital setting, frailty has been associated with multiple adverse health outcomes. In older adult trauma patients, there is a high prevalence of frailty and it may be more predictive for adverse outcomes such as mortality, delirium and increased care needs at discharge than chronological age alone (3, 23).

Frailty screening can help identify those vulnerable older patients who require modified care. Clinicians should consider whether a person is cognitively frail, physically frail or both. In Queensland, the [Clinical Frailty Scale \(CFS\)](#), is the frailty screening tool of choice and has been validated for use in older adult trauma patients (24, 25).

A positive screen for frailty (CFS  $\geq 4$ ) should trigger referral for early CGA to help reduce the risk of hospital-acquired complications.

#### Delirium and cognitive impairment

Delirium is a form of acute brain failure defined as a disturbance in attention and awareness with an additional disturbance in cognition, not explained by another pre-existing, established or evolving neurocognitive disorder or coma. It is characterised by an acute change in attention, consciousness and thinking. It can be present on arrival to hospital or acquired in hospital. In older adult trauma patients delirium is common and associated with increased lengths of stay (26). Risk factors for delirium in trauma include a person's baseline cognitive vulnerability as well as the mechanism of injury e.g., major trauma and the severity of the injury. Admission to critical care significantly increases risk of delirium in an older person.

All older adult trauma patients should be screened for delirium using a [delirium screening tool](#) such as the [4AT](#) aligning with the Delirium Clinical Care Standard and the National Safety and Quality Health Service (NSQHS) Comprehensive Care Standard (27, 28). For people with delirium, multidisciplinary geriatrician led CGA is recommended to identify precipitants and manage complications. All clinicians can consider using the [PITCHED algorithm](#) in first line treatment. Under treated pain remains a major precipitant

of delirium in older adults with trauma.

Delirium prevention strategies should be undertaken in all older adult patients presenting with trauma e.g. [Eat Walk Engage](#).

Underlying cognitive impairment can be a factor in the mechanism of injury, increase the risk of delirium or falls in the hospital, and impact discharge planning. If appropriate consider screening for underlying cognitive impairment.

See [cognitive impairment management toolkit](#) for information on delirium management.

See [cognitive impairment screening toolkit](#) for information on cognitive screening.

### **Malnutrition**

Nutrition is essential in the treatment of older adult trauma patients who are at higher baseline risk for malnutrition (29). In trauma, patients experience a prolonged increase in metabolic demand, which places them at increased risk of complications related to malnutrition (30).

Completing the [Malnutrition Screening Tool \(MST\)](#) can help with identifying patients at risk of malnutrition. If the patient scores more than two, then a referral to a dietitian is warranted for further assessment. Dietitians have a key role in ensuring provision of appropriate, safe, and nutritionally adequate food and meals to prevent hospital-acquired malnutrition. This may involve the prescription of a fortified diet, high energy high protein commercial supplements or enteral nutrition.

### **Medication**

Older adults presenting to hospital have a high prevalence of high-risk prescribing, polypharmacy and adverse drug events (31). Polypharmacy carries the risk of adverse drug reactions, drug-drug interactions, and has negative physiological effects on the body's response to trauma-related stress or haemorrhage (32). It is recommended that there is completion of medication reconciliation and medication review at presentation, preferably by a pharmacist (33). Consideration should be given to older adults prescribed medications that affect haemostasis e.g., Antiplatelets or Anticoagulants, as they put older adults at an increased risk of bleeding following trauma. A discussion should occur between a senior clinician and the patient or substitute decision maker around what indication the medication is prescribed for and the risks and/or benefits of withholding or continuing the medication. There should be a special focus on medications at risk of increasing delirium or falls and an assessment of the need for medications for osteoporosis. It is important to assess patients' ability to take medications orally and consider alternative routes where necessary. Essential/time critical medication, (e.g., Parkinson's, epilepsy, diabetes, transplant immunosuppressants) should be identified and administered as soon as possible. There should be ongoing pharmacist medication review where available, throughout admission and on discharge (34).

### **Analgesia**

Effective analgesia is a core principle in the management of trauma in older adults, as it not only relieves suffering but also reduces the risk of some of the complications of traumatic injury and aids in recovery. Effective analgesia must be commenced at the earliest opportunity and continued throughout the clinical course of the trauma care episode. A multimodal analgesia strategy should be adopted upon presentation to the ED and titrated according to the individual patient's injury and risk profile, whilst considering their comorbidities and preferences.

Pain treatment in older adults is complicated by the presence of coexisting illness, use of concomitant medications, cognitive decline, and depression. Older adults often receive inadequate analgesia due to clinician's and patient's fear of causing side effects, such as sedation and respiratory depression. However, undertreated pain can cause or prolong

delirium. Opioid sparing analgesia strategies, such as regional blocks, may be an effective way to help reduce some of the risks associated with opioid analgesics. Older adults are at risk of constipation. Laxatives should be considered for all older adults, but particularly if prescribed opioids.

Traditional pain assessment in the older adult often focuses on pain presence and the degree of pain. Older adults are often reluctant to disclose pain and may report less pain than younger people. Therefore, it may be necessary to assess pain in the older adult using alternative methods. Older adults with cognitive impairment from dementia, stroke, and movement disorders may have difficulty communicating their degree of pain. When assessing pain in patients with severe cognitive impairment consider using reports from family and carers, direct observation, and observational tools such as the [Abbey pain scale](#) and Pain Assessment in Advanced Dementia ([PAINAD](#)) tool (35).

### **Alcohol or substance dependency**

If there is any suspicion of alcohol or substance dependency, screening and assessment should be completed, and management initiated according to local protocol.

### **Venous thromboembolism (VTE) prevention**

VTE is an important and potentially preventable cause of morbidity and mortality, with a reported incidence of 58% in trauma patients without chemical thromboprophylaxis (36). The risk of VTE is increased with older age, low Body Mass Index, and higher Injury Severity Score (37, 38). Although the risk of bleeding must be taken into consideration, early chemical VTE prophylaxis has been found to be safe in the absence of ongoing large volume haemorrhage (37, 39, 40). Following commencement, interruptions should be minimised as missing even a single dose can increase the VTE risk (41). Where contraindications to chemical VTE prophylaxis exist, early mechanical VTE prevention modalities should be utilised (graduated compression stockings and intermittent pneumatic compression devices) and patients are cleared for early mobilisation where possible.

### **Elder abuse**

Abuse of the older person may be present in those with trauma. It should always be considered, especially when circumstances of the incident are inconsistent or do not correlate with reported mechanism/assessment. A multidisciplinary team-based approach can improve the identification of elder abuse, as well as the health and safety of vulnerable patients (42).

## **Patient journey**

When considering an older adult trauma patients journey through the hospital, a multidisciplinary approach should be taken, including early referrals to and involvement of clinicians skilled in the care of older adults, such as geriatricians, RaSS/GEDI teams, allied health clinicians, hospital and community nurses, community care providers, family members, and the patient's primary care physician or general practitioner (GP). Shared decision making between patients, their care givers, service providers, family and medical teams should be used to establish early and realistic care goals. Goals should be regularly reviewed to align with planned discharge destination.

### **Admission**

Many older adults with trauma require admission to hospital, usually because of a change in function due to injury. Admission to hospital allows for regular clinical observation, titration of pain relief, management of coexisting injuries, as well as access to allied health disciplines and nursing care as required.

A decision for a medical or surgical admission will depend on individual institution models of care, as well as the patients' clinical requirements. There should be

consideration for the use and development of shared-care models.

### **Rehabilitation and Sub-acute care**

Discharge assessment, with estimated length of stay and identification of need for transfer of care to another hospital/healthcare facility for ongoing care and rehabilitation should occur early in admission. Regular reviews of rehabilitation needs and early goal setting during admission to optimise the patient journey is recommended.

### **Discharge**

Discharge planning should begin at the earliest part of the patient's journey as practical. Factors such as the patient's geographic location, physical home environment, mobility, ongoing care needs including need for residential aged care, screening for carer's stress (the patient may be the carer of another individual) and social supports all play an important part of determining where, when, and how a patient may be safely transferred out of the hospital environment. Follow up appointments should be clearly communicated to the patient, to ensure that any ongoing care requirements are met, and strategies put in place in case of difficulty with memory.

Hospital clinicians should recommend to patients to see their GP in the week following discharge to assess for evolving latent injuries and review analgesia requirements. A comprehensive discharge summary should be given to the patient and sent to their GP to ensure continuity of care. There should also be safety netting and clear communication to the patient about any signs of deterioration or symptoms that might warrant the need to return to hospital.

## **Retrievals and interhospital transfers**

Early recognition of clinical severity is vital to ensure a timely and safe transfer between facilities. A Senior Medical Officer (SMO) led discussion should occur prior to any transfer, including the specific care goals, specialty services required and clinical prognostic advice. Once a transfer has been confirmed, an appropriate and thorough handover should be given to the receiving service.

If a patient requires an emergency trauma road transfer, contact the Queensland Ambulance Service (QAS) on triple zero (000). If a patient requires an emergency aeromedical interhospital transfer, contact Retrieval Services Queensland (RSQ) on 1300 799 127. Refer to the RSQ [Criteria for early notification of trauma for interfacility transfer](#). Always follow local hospital guidelines for any facility-specific escalation pathways.


## **Repatriation**

If a person has been treated at a major trauma centre and their care can now be managed closer to home, healthcare staff should facilitate this if clinically appropriate and aligns with patients' goals and wishes. It is important to consider whether the accepting facility can provide the appropriate clinical care e.g., access to rehabilitation. Although this needs to be balanced with a person's psychosocial needs and access to family/peer support in their own community. Once appropriate preparation and follow up is arranged by the major trauma centre, and if an aeromedical transfer is required, RSQ can be contacted to facilitate the patient's stepdown transfer. QAS may be contacted for assistance with hospital-to-hospital road transfers.

## **Advance care planning and end of life care**

In major traumatic injuries requiring significant surgical intervention, a thorough discussion with the consultant specialist surgeon should occur to indicate the safety and appropriateness for the patient to undergo surgery.

Consideration of advance care planning and/or referral to specialist palliative care should be given for those with advanced frailty in whom prognosis is poor and response



to treatment lacking. Older adults may take longer to respond to treatments or recover from their injuries, and reversible causes, e.g., hypoactive delirium, should be excluded and managed before involving specialist palliative care services. Age alone should never be used as the sole determinant to limit care.

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### Consultation

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Queensland Trauma Clinical Network Steering Committee

Queensland Rural and Remote Clinical Network

Queensland Emergency Strategic Advisory Panel (QEDSAP)

Retrieval Services Queensland (RSQ)

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## Document approval details

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### Review

This document will be evaluated and reviewed every 3 years from date of approval to ensure it remains current.

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1.0	16th October 2024	First Issue

## References

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