

# Scottish Standards of Care for Hip Fracture Patients

These Standards are endorsed by the following organisations:

Scottish Committee for Orthopaedics and Trauma (SCOT)

Royal College of Emergency Medicine National Board for Scotland (RCEM)

British Geriatric Society (BGS)

Orthopaedic Trauma Society (OTS)



The Royal College of  
Emergency Medicine



The standards are also supported by:

Association of Anaesthetists (AAGBI)

Royal Osteoporosis Society (ROS)

Healthcare Improvement Scotland



Association  
of Anaesthetists



Royal  
Osteoporosis  
Society

Better bone health for everybody



Healthcare  
Improvement  
Scotland

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# Scottish Standards of Care for Hip Fracture Patients

These standards were initially developed by the National Hip Fracture Steering Group in 2014 and have been subsequently revised and updated as of July 2019. The “Standards of Care” apply to every patient who is admitted to hospital in Scotland after sustaining a hip fracture.

A list of current members of the Steering Group can be found at the end of this document ([Appendix A](#)).

Please note the following recommendations and amendment to the Standards:

## Recommendations

- **Management of patients on Anticoagulation therapy.** Please refer to the ‘Anticoagulation Consensus Statement’ which can be found at <https://www.shfa.scot.nhs.uk/docs/2018/Consensus-Statement-for-Management-of-Anticoagulants-180913.pdf>
- **Management of Acute Kidney Injury (AKI).** AKI is common in patients presenting with hip fracture, often developing within 48 hours of surgery. Intravenous fluids are recommended from admission to post-operatively with monitoring of renal function and review of nephrotoxic drug use in the peri-operative period.
- **Nutritional care is an essential component in the management of patients who have sustained a hip fracture.** It is recommended that early identification by use of the Malnutrition Universal Screening Tool (MUST) and treatment of malnutrition should be a priority during admission to the ward. Nutritional support should be realistic and integrated into the care of this frail and vulnerable patient group to ensure patients’ recover well and retain quality of life.
- **Hospitals must provide a comprehensive 7 day service for patients with hip fractures.** This must include access to theatre, Medicine of the Elderly/ Geriatrician support and Allied Health Professional (AHP) input. Evidence suggests that providing a 7 day service enhances the care and outcomes for patients with a hip fracture.
- **Prior to discharge, a person’s risk of falling when they return home is assessed by a physiotherapist or occupational therapist.** A referral is made to community services to provide ongoing intervention to assess and reduce falls risk and optimise recovery.

## Amended standards

**Standard 10: Every patient who has a hip fracture has an assessment of, or a referral for, their bone health prior to leaving the acute orthopaedic ward has been amended and the new standard reads ‘Every patient who has been admitted to hospital and diagnosed with a hip fracture has an assessment or a referral for their bone health within 60 days.’** For further details please refer to [page 11](#).

## Overall Rationale

The Scottish Hip Fracture Audit Report (2018)<sup>1</sup> shows that whilst considerable progress has been achieved since the Standards of Care were introduced in 2014, significant variation still exists across Scotland in terms of the quality of care and outcomes for patients who sustain a hip fracture. Many hospitals, however do exhibit good practice. The standard of care for all hip fracture patients should be of high quality for all treatment interventions, and in all hospitals. To reduce variation and to further improve the quality of clinical care, this “Standards of Care” document has been prepared with endorsement from The Scottish Committee for Orthopaedics and Trauma (SCOT), The British Geriatric Society (BGS), and The Scottish Board of the College of Emergency Medicine (RCEM). It is also supported by the Association of Anaesthetists (AAGBI) and the Royal Osteoporosis Society (ROS). This document was also originally prepared in collaboration with Healthcare Improvement Scotland (HIS) to align with “Older People in Acute Care”<sup>2</sup> and “Food, Fluids and Nutrition”<sup>3</sup> standards.

Audit data is reported each month at national and local levels and is available to NHS staff via the Trauma & Orthopaedic Portal (for details on how to access this see Appendix B). This data enables both national benchmarking as well as the opportunity to explore local systems to better understand where improvement actions could be developed.

A national patient/ carer information leaflet to improve communication for patients’ relatives and carers has been developed. This leaflet includes the standards of care which patients can expect to receive from every hospital in Scotland. This information leaflet can be found on the Scottish Hip Fracture Audit website (<https://www.shfa.scot.nhs.uk/docs/2018/Hip-fracture-leaflet-180219.pdf>). It is essential that patients and relatives/ carers receive information, therefore all hospitals should either provide this or their own locally devised leaflet, and or signpost people to the website. Locally developed tools and staff experiences of working to achieve the standards are shared regularly via the website in the form of quarterly newsletters. Please visit [www.shfa.scot.nhs.uk](http://www.shfa.scot.nhs.uk) for further information.

## Standard 1: Patients with a Hip Fracture are transferred from the Emergency Department to the Orthopaedic ward within 4 hours

**Rationale:** Following clinical confirmation or diagnosis of a hip fracture, local protocols should ensure the efficient and safe transfer of the patient to an orthopaedic ward. This transfer should not be delayed by a requirement that the patient is reviewed by the receiving orthopaedic team in the Emergency Department (ED) unless diagnostic uncertainty exists. If not indicated for essential medical interventions, these frail elderly patients should not have an extended stay in an ED as this represents a delay to an area of definitive care.

It is, however, essential that the emphasis is on good clinical care while in the ED rather than focussed exclusively on transfer time.

Acute medical pathology is common in this patient group and early involvement of anaesthetic and medical teams may be required for focused physiological optimisation.

## 1.1 Audit Measure

The time between the patient's attendance to discharge from the ED, expressed as a percentage of patients. Attendance to discharge from the ED will be calculated for all patients regardless of where they first present, for example they may present in an ED in one hospital and be transferred to another for surgery.

People who sustain a hip fracture whilst in an acute care setting are not included in this measure.

## Standard 2: Patients who have a clinical suspicion or confirmation of a hip fracture have the "Big Six" interventions/ treatments before leaving the Emergency Department

**Rationale:** Every patient who has a clinical suspicion or confirmation of a hip fracture has the following "Big Six" interventions/ treatments in the ED (or earlier if an inter-hospital transfer), as part of a local protocol:

### 1. Provision of Pain Relief

All patients who sustain this painful injury must be offered optimal analgesia. In many cases opiate analgesia will have been provided by ambulance staff pre-hospital. The early use of nerve blocks has been shown to reduce pain, opioid requirement and delirium, and fascia iliaca blocks are safe and easy to perform. The use of a nerve block is the recommendation of the Steering Group. Provision of oral non-opiate analgesia without either opioid or regional analgesia is sub-optimal other than in selected cases e.g. for sub-acute impacted fractures.

**Standard:** All patients should have a pain assessment documented and adequate provision of pain relief whilst in the ED.

**Recommendation:** A nerve block, such as fascia iliaca block or femoral nerve block, should be performed unless contraindications exist.

### 2. Screening for Delirium

Identification of patients with delirium by means of a screening test within the ED is essential. Delirium screening is part of the ED hip fracture protocol. The 4AT<sup>4</sup> Rapid Clinical Test for Delirium is the recognised screening tool for this purpose and can be conducted by medical or nursing staff. Patients who score 4 or more should be identified as having delirium, requiring investigation of potential underlying causes and appropriate management. The presence of delirium has obvious implications with respect to the informed consent process and the patient's capacity should be formally assessed and documented.

**Standard:** All patients should have a 4AT test performed and documented in the ED, and a score of >4 should trigger appropriate interventions for management of delirium.

### 3. Early Warning Score (EWS) system

This requires the measurement of respiratory rate, oxygen saturation, temperature, systolic blood pressure, heart rate and neurological status. The National Institute for Health and Care Excellence (NICE) recommends that all hospital in-patients should be monitored using a physiological scoring system at least every 12 hours.<sup>5</sup>

**Standard:** all patients should have a physiological early warning score, such as the National Early Warning Score (NEWS), calculated and documented in the ED.

### 4. Full Blood Investigation and Electrocardiogram

Electrolyte abnormalities and anaemia are common in the hip fracture patient. Intravenous cannulation with pre-operative laboratory tests including: urea/ electrolytes, full blood count, glucose and group/ save should be carried out. A coagulation screen does not necessarily predict operative bleeding complications and may only be required in patients taking warfarin.<sup>6</sup> Further tests may be required depending on clinical circumstances. An electrocardiogram (ECG) must be undertaken and reviewed in the ED. Further investigations may be required depending on the result.

**Standard:** Other than pelvic/ hip x-rays, minimum investigations performed and documented in the ED should include full blood count, urea and electrolyte (U+E), group/ save and ECG.

### 5. Intravenous Fluids Therapy

Many hip fracture patients are fluid deplete at the time of presentation. This results not only from blood loss into the fracture site – the patient may be dehydrated, or fluid loss from concurrent medical conditions such as sepsis may exist. Elderly frail patients may not exhibit typical physiological responses such as tachycardia or hypotension, and as a result, inadequate resuscitation is common.<sup>7</sup> Additionally, this patient group tolerates hypovolaemia poorly, risking cardiovascular instability and organ hypoperfusion. Acute kidney injury (AKI) is highly prevalent, and is seen in up to 24% of patients on admission.<sup>8</sup> From admission to hospital, on-going blood loss, pain, delirium and fasting for theatre all contribute to poor oral intake and the patient is unlikely to be able to make up the fluid deficit by oral intake alone.

**Standard:** Assessment of fluid status whilst in the ED, with regular repeat assessments of fluid status and provision of IV fluids as needed during admission. All of which should be clearly documented in the patient's records.

**Recommendation:** IV fluid resuscitation on arrival in the ED/ on admission, followed by IV fluid maintenance until post-operative period.

### 6. Pressure Area Care

Documented assessment must be carried out to minimise the risk of pressure injury.<sup>9</sup> Hip fracture patients are at high risk of developing pressure sores and all patients must undergo documented pressure area assessment when admitted to the ED. This assessment may not necessarily be a formal Waterlow Score, although such a score should be encouraged.

**Standard:** for all patients, pressure areas should be inspected in the ED and this should be clearly documented in the patient's records.

## 2.1 Audit Measure

The percentage of all patients who were admitted to orthopaedics via the ED for whom the “Big Six” assessments were completed in the ED - compliance with the bundle as a whole, as well as individual elements. Documented evidence that:

- Analgesia was given or offered and declined by the patient. Analgesia by the Scottish Ambulance Service (SAS) or General Practitioner (GP) prior to arrival at the ED SAS/ GP data not collected separately, only as part of the ‘ED’ analgesia. Nerve blocks are included as analgesia but are also reported separately.
- Bloods have been taken and ECG performed. Types of investigation and ECG reviewed are not currently reported.
- IV fluids were commenced in the ED or by SAS prior to arrival or transfer.
- The 4AT delirium screening tool has been used and the score was recorded in the ED.
- Pressure areas were assessed in the ED. This can include an informal visual inspection as well as completion of a validated tool such as Waterlow Score.
- Early Warning System was completed and the score was recorded in the ED.

### Standard 3: Every patient with a hip fracture receives the “inpatient bundle of care” within 24 hours of admission

**Rationale:** An ‘inpatient care bundle’ has been developed which **must be completed and documented** within 24 hours of admission to the orthopaedic/ receiving ward. In the case of people who have suffered a hip fracture as the result of an inpatient fall, these assessments must be carried out within 24 hours of the fall and or orthopaedic involvement in the person’s care. These assessments, as well as the subsequent interventions, are essential to maximise the quality of care and overall patient outcome through a multi-disciplinary approach to patient care. Involvement with patients and relatives/ carers is essential.

These standards are in line with the Older People in Hospital Standards – June 2015<sup>10</sup> which support acute episodes of care for older people in hospital.

Seven day supported working must be provided to ensure day of admission or surgery does not affect time to theatre and subsequent overall patient recovery.

#### 1. Delirium Screening within 24 hours of ward admission and assessment of Cognitive Function

Both acute delirium (hyperactive, hypoactive or mixed) and chronic cognitive impairment are common in hip fracture patients.

35-65% of older patients with hip fracture will develop delirium after hospital admission. The risk of developing delirium, as well as the incumbent risks associated with this condition, can be mitigated with better identification and management.

Delirium is associated with increased length of stay, admission to care homes and mortality. It has strong associations with other hospital associated adverse events including pressure ulcers and falls and is frequently under diagnosed.

Healthcare Improvement Scotland (HIS), in collaboration with the Scottish Delirium Association, NHS Education for Scotland (NES) and colleagues across NHS Scotland, have developed a range of tools and resources for healthcare professionals to help improve the identification and immediate management of delirium in clinical settings. The 4AT is a validated rapid assessment tool for both delirium and cognitive impairment.<sup>4</sup> The TIME bundle is used to improve the management of delirium and identification of underlying causes.<sup>11</sup>

**All hip fracture patients are screened for delirium at point of admission to hospital, and again within 24 hours of admission to the ward using the 4AT with associated appropriate use of the TIME bundle.**

The 4AT should be repeated if there is any change in the patient's conscious level or cognitive function during their hospital stay, or if the patient is moved from one ward to another. The TIME bundle prompts communication with relatives and carers. It should be recognised that room and ward transfers are associated with an increased incidence of delirium amongst hospitalised elderly patients, and therefore multiple and unnecessary ward moves must be avoided.<sup>12</sup>

If patients are identified as having possible cognitive impairment through history taking, information from relatives or carers or by scoring >1 on 4AT, they should have an assessment of cognitive function. This can be done using the Mini Mental State Examination (MMSE), Montreal Cognitive Assessment (MOCA) or an Addenbrooke's Cognitive Examination Revised (ACE-R). Where cognitive impairment is identified, management plans should be discussed with staff and relatives/ carers and documented in the patient care plan. This includes the assessment of the capacity to consent to medical treatment and the appropriate use of the Section 47 certificate under the Adults with Incapacity Act.<sup>13</sup> The need for further assessment and management of cognitive impairment in the community must be considered and arranged if deemed necessary.

Patients with delirium, cognitive impairment and communication difficulties can be difficult to assess for pain. The Abbey Pain Scale is designed to assist in the assessment of pain in patients who are unable to clearly articulate their needs.

Many older patients with dementia present to hospital with a hip fracture. They are at increased risk of developing complications such as delirium, infection, malnutrition, dehydration, constipation and falls.<sup>14-16</sup> The noted references provide guidance on the care of patients with dementia in the acute hospital setting.

## **2. Falls Assessment within 24 hours of ward admission**

Falls are common and increase with age, with 30% of those aged 65 years or more who live in the community, falling each year and the percentage increasing to 45% in those aged over 80 years.<sup>17</sup> The vast majority of hip fractures are the result of a fall.<sup>18</sup> In addition to the hip fracture there are further psychological sequelae with loss of confidence, increased fear of falling and lower quality of life. Half of older people who fall will have a further fall within the next 12 months.<sup>19</sup>

Hospital stays are an adverse event, during which older people face prolonged bed-rest, changes in medications, diet and daily routine. People who have sustained a hip fracture have additional challenges to overcome: they have experienced a serious musculoskeletal injury and surgery.<sup>20</sup>

All patients who sustain a hip fracture must have a falls risk assessment performed on admission as part of their initial nursing assessment. This should be coupled with a care plan to identify modifiable risk factors and appropriate interventions for each patient with the aim to reduce future falls. This will usually require a multidisciplinary approach.

In the general population 30% of people 65 years and over fall each year with 10% of falls resulting in serious injury. In the post discharge population 40% fall at least once in the first 6 months with 54% resulting in serious injury. Documented assessment and management of falls risk while the person is in hospital is important, but of even greater importance is consideration of a person's risk of falling when they are back home. Interventions such as home assessment and modification carried out by an occupational therapist can reduce the rate of falls by 19% and progressive strength and balance exercises can reduce rate of falls by 32%.<sup>21</sup>

The recommendation of the Steering Group is that prior to discharge, a person's risk of falling when they return home is assessed by a physiotherapist or occupational therapist. A referral is made to community services to provide ongoing intervention to assess and reduce falls risk and optimise recovery.

### **3. Food, Fluids and Nutritional Assessment within 24 hours of ward admission**

The Standards of Food, Fluids & Nutritional Care<sup>3</sup>, highlight the importance of nutritional screening within 24 hours of hospital admission, to identify malnutrition and ensure accuracy of drug dosage. Patients identified as being at risk of malnutrition should be referred to a dietician for consideration for nutritional support.

Accurate fluid balance and assessment of fluid status must continue to be assessed and monitored regularly during the inpatient stay. Patients are at risk of dehydration from on-going blood loss, delirium and fasting for surgery, and hypovolaemia or under-resuscitation is likely to exacerbate organ dysfunction and acute kidney injury. Fluid overload is likely to be detected earlier if accurate fluid balance is kept.

### **4. Pressure Area Assessment within 24 hours of ward admission**

Pressure sores occur in people who cannot re-position themselves, the acutely ill, the older person and the malnourished.<sup>9</sup> Hip fracture patients are therefore especially at risk, with early documented assessment vital. Assessment for risk of pressure injuries must be made on all patients within 24 hours of admission, and interventions to minimise the risk of development of pressure injury carried out on at risk patients.

#### **4.1 Audit Measure**

The percentage of all audited patients who had the bundle of inpatient assessments completed within 24 hours following admission (i.e. date/ time patient left the ED), compliance with the bundle as a whole as well as individual elements. Note that if a patient sustains a hip fracture as an inpatient or if the fracture was missed on presentation at the ED, the information in this section pertains to care following the fall and or diagnosis of the fracture. Documented evidence of:

- Delirium screen using 4AT  
Note: Use of the TIME bundle is not currently reported;

- Falls assessment e.g. Morse fall scale;
- Nutritional assessment e.g. MUST; and
- First formal pressure area assessment e.g. Waterlow Score

## Standard 4: Patients undergo surgical repair of their hip fracture within 36 hours of admission

**Rationale:** It is essential that the surgical fixation of femoral fractures is expedited. Delayed fixation correlates with increased one-year mortality, increased complications and increased length of hospital stay. The optimal timescale for surgery has yet to be identified. A systematic review in 2008 suggested that delay past 48 hours increased one-year mortality by 32%.<sup>22</sup> Recent studies have suggested mortality reductions by reducing time to theatre to 24 hours and even 12 hours from admission.<sup>23, 24</sup> Hospitals must therefore be organised in such a way that facilitates timely and planned surgery without delays, meaning not only adequate theatre capacity for trauma surgery and availability of anaesthetists and surgeons, but also a means of rapidly assessing and optimising frail, elderly patients with multiple co-morbidities.

Patients with a medically reversible condition, who are considered initially medically unfit for theatre, may require optimisation before surgery. Such pre-surgery optimisation must be achievable and follow a risk assessment process with realistic goal setting. The process should aim to be completed without unnecessary delaying of surgery. If further optimisation is required, delaying surgery is only acceptable if it is for an intervention thought to significantly improve outcome or reduce mortality, greater than the increase in mortality associated with delay. In general, surgery should not be delayed for investigations as this does not appear to alter outcome.<sup>25</sup> Patients who require transfer to another unit for surgery should be transferred as close to admission as possible so that surgery is not delayed.

In the case that conservative treatment is agreed as appropriate, the management plan for these patients (or a palliative plan if deemed to be approaching end of life), should be clearly recorded in the patient records following a formal risk assessment. This decision should also be subject to regular re-evaluation should the patient's medical condition improve.

### 4.1 Audit Measure

The timing of the surgical repair of the patient's hip fracture, based on the 'induction to anaesthesia' time. Note that patients who do not undergo surgical repair within a week of admission are deemed as being treated conservatively and are therefore not included in this measure.

### 4.2 Audit Measure

Documented evidence of the main reason for delay of surgical repair if greater than 36 hours:

- Medically unfit
- Lack of theatre time
- Initially treated conservatively
- Delayed diagnosis

- Delayed consent
- Delay for total hip replacement
- Other

## **Standard 5: No patients are repeatedly fasted in preparation for surgery. In addition, clear oral fluids are offered up to two hours prior to surgery**

**Rationale:** Nearly 30% of hip fracture patients are nutritionally at risk. Maintaining adequate caloric intake is therefore important to attenuate peri-operative nitrogen loss and loss of muscle mass. Repeated fasting cycles occur when patients are fasted for surgery and then cancelled and results in limited oral intake over a number of days. This can be avoided with careful and realistic planning of theatre lists and ensuring adequate theatre capacity. Communication between the theatre/ ward teams and the patient (including relatives/ carers) is essential. This collaborative approach can be facilitated through an identified trauma liaison nurse-led service.

Patients should be offered clear fluids until up to two hours before surgery. Most patients will receive IV fluids (so the prevention of dehydration is less of an issue), but IV fluids do not attenuate the sensation of thirst. As such, allowing oral fluids will improve patient comfort. Hip fracture patients are frequently malnourished and/ or dehydrated on admission to hospital. Repeated fasting of this patient group can further exacerbate this problem. Repeating a fasting cycle must therefore be avoided where possible, and the length of pre-operative fasting should be minimised.

### **5.1 Audit Measure**

Percentage of patients for whom the fasting cycle was repeated. In order to be classed as having fasted, the patient must have missed at least one meal.

## **Standard 6: Cemented hemi-arthroplasty implants are standard unless clinically indicated otherwise**

**Rationale:** The use of cemented hemi-arthroplasty implants should be standard as recommended by the Scottish Intercollegiate Guidelines Network (SIGN)/ NICE<sup>26</sup> unless specifically contra-indicated by significant operative risk. The patient's pre-existing ambulatory status should be a consideration when selecting the type of implant. Replacement arthroplasty (total hip replacement or hemi-arthroplasty) should be the standard procedure of choice for patients with a displaced intra-capsular hip fracture.

Cemented total hip arthroplasty should be considered in all patients who are independently mobile (with the use of no aids/ one stick), do not suffer from cognitive impairment and who are medically fit for such surgery. This decision should be made in accordance with the wishes of the patient after discussion of the potential risks/ benefits of each procedure. Extra-capsular hip fracture should be managed with the use of a dynamic/ sliding hip screw unless of a reverse oblique, malignant or sub-trochanteric fracture pattern.<sup>27</sup>

## 6.1 Audit Measure

The percentage of patients who had a hemi-arthroplasty which was cemented.

### Standard 7: Every patient who is identified locally as being frail, receives comprehensive geriatric assessment within three days of admission

**Rationale:** Many patients presenting with hip fractures are frail and have complex medical problems. Collaborative working with Geriatricians has been shown to improve the standards of medical care in this frail group.<sup>28-29</sup> The benefits include reduction in delay to surgery caused by medical problems, improved management of perioperative medical complications, better coordination of multidisciplinary team work, improved communication with patients/relatives and reduction in adverse events including delirium and falls.<sup>28,29</sup> There is also a trend towards reduced length of stay and lower in-hospital mortality.<sup>29</sup>

There are a number of models of orthogeriatric care. These include reactive consultation models, where patients are referred to Medicine for the Elderly on an adhoc basis but are primarily managed by the orthopaedic team, visits by a geriatrician or a specialist nurse who provide advice on medical care on a regular basis in the orthopaedic ward, and combined orthogeriatric care with input from both the orthopaedic team and geriatricians. Advanced Nurse Practitioner roles are developing in some areas to deliver support in the identification and management of frailty, including participating in the delivery of Comprehensive Geriatric Assessment (CGA). In units where the geriatric resource is insufficient to meet required needs, ward sessions for GPs with a specialist interest should also be considered.

CGA is specialist coordinated multidisciplinary care that seeks to assess a patient's needs across medical, functional and psychiatric domains to identify, quantify and manage their deficits to avoid long term disability. In an orthopaedic context this will include falls history and assessment including an ECG and lying and standing blood pressures, assessment of co-morbidities and functional abilities, medication review, cognitive assessment, nutritional assessment, assessment for sensory impairment, continence review, assessment of bone health and discharge planning.

Input from the Medicine for the Elderly team should be commenced within 3 days of admission for all patients identified at risk.

## 7.1 Audit Measure

The percentage of patients who had a Comprehensive Geriatric Assessment completed within three days of admission (or following their fracture if the patient fell whilst an inpatient). Note that patients, who under local protocol, do not require a CGA are not included in this measure, e.g. patients <65 years.

## **Standard 8 Mobilisation has begun by the end of the first day after surgery and every patient has physiotherapy assessment by end of day two**

**Rationale:** Early mobilisation in combination with post-operative physiotherapy is of value in reducing pulmonary complications, optimising early recovery and reducing falls. If the patient's overall medical condition allows, mobilisation and multidisciplinary rehabilitation should begin within 24 hours post-operatively.

### **8.1 Audit Measure**

The timing of first mobilisation following surgery documented in the patient's records. This can include getting out of bed to use the toilet as well as more formal mobilisation with nursing or physiotherapy staff.

### **8.2 Audit Measure**

The timing of the first documented assessment by a member of the physiotherapy team.

## **Standard 9: Every patient has a documented Occupational Therapy Assessment commenced by the end of day three post admission**

**Rationale:** Occupational Therapy (OT) contributes to both enabling patients to regain function post operatively and assessing the need for support following discharge. All patients must be screened and considered for OT assessment. Any patient deemed not appropriate for OT intervention should have written documentation to support this decision.

### **9.1 Audit Measure**

The timing of the first comprehensive recorded OT input by a member of the OT team for all patients. Note that this can occur both pre and post operatively. Documentation of patient 'not fit' or 'not available' is not classed as the start of input.

## **Standard 10: Every patient who has been admitted and diagnosed with a hip fracture has an assessment or a referral for their bone health within 60 days**

**Rationale:** Osteoporosis risk assessment and treatment is integral to the prevention of further fractures alongside falls prevention strategies. Fracture begets fracture: a previous fracture will approximately double the risk of a subsequent fracture with the greatest risk occurring in the first year following the initial fracture.<sup>27</sup> There is extensive evidence showing the effectiveness of bisphosphonate and other osteoporosis treatments, demonstrating up to a 50% relative reduction in fracture risk.<sup>30</sup> Hence admission with hip fracture offers a prime opportunity to assess and instigate osteoporosis medication, as appropriate. Some units have a Fracture Liaison Service in operation which has been recognised internationally as an effective model of delivering care.<sup>31</sup> Most patients are commenced directly onto treatment

whilst in hospital whereas others have treatment deferred until after they have their bone densitometry assessment. Significant variation in practice across Scotland is evident in terms of osteoporosis treatment and diagnostic interventions. The aim should be that all patients who have been admitted and diagnosed with hip fracture should receive a bone health assessment or referral for this within 60 days of admission to hospital in order to reduce future fracture risk.

## **10.1 Audit Measure**

The percentage of all patients whose bone health has been assessed within 60 days of admission to hospital, this could include new bone protection medications being commenced as well as documentation that these should continue, a referral to a Fracture Liaison Service or for a DXA scan.

## **Standard 11: Every patient's recovery is optimised by a multi-disciplinary team approach such that they are discharged back to their original place of residence within 30 days from the date of admission**

The main aim of the improvement work is “getting patients back to their original place of residence as rapidly as possible, whilst optimising their ability to retain their independence”. This should be achieved by optimising the pathway of care during their acute hospital stay and a seamless and supported transition back to the original place of residence within 30 days from date of admission. Where possible, rehabilitation should be in the patient's original place of residence rather than the traditional rehabilitation unit.

## **11.1 Audit Measures**

Further details are collected regarding the patient's total length of stay in hospital and onward destination. Outcome at 30 days is also collected and includes variables such as place of residence, readmissions and mortality.

This measure reports on patients originally admitted with a hip fracture from their own homes or care/ nursing homes, but not those who sustain their hip fracture whilst already in hospital.

## Appendices

### A - Scottish Hip Fracture Audit and Advisory Group Membership & Contacts

Name	Role	Organisation	Email
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## B: Access to the Trauma and Orthopaedic Dashboard

### Trauma & Orthopaedic Portal [Trauma & Orthopaedic Portal](#)

Audit data are updated and added to this web based platform each month and are provided as management information only, i.e. they are routinely available to participating NHS Boards. Access can be granted by requesting a username and password following the process below;

To become an approved user of the Trauma & Orthopaedic Portal please go to [NSS User Access System](#).

- **Users who already have an LDAP username/password** (it is the same as the LDAP/ UNIX one which you may already have for other data systems hosted by ISD). Once logged in please select 'Request new access' from the menu. Then select the Specialty Information from the drop down list and proceed to input your details.

Once you have created and submitted your request an email will be sent to your local authoriser who will approve your request. Once approved you will shortly receive an email with a link to the Trauma & Orthopaedic Portal.

- **Users who think they already have an LDAP username/password but have forgotten them**  
If you have forgotten these please contact the Customer Support Desk via e-mail [nss.csd@nhs.net](mailto:nss.csd@nhs.net) or phone 0131 275 7777 and then follow the instructions above.

- **Users who don't have an LDAP username/password**  
Please register for one by using the link above and clicking the 'register' button and then follow the instructions above.

If you have any issues or questions please contact the team at [NSS](#).  
[TraumaandOrthopaedicPortal@nhs.net](mailto:TraumaandOrthopaedicPortal@nhs.net)

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