

Hip fracture recovery:

Raising our care standards

CJ Coleman Award winner, **Louise Brent** looks at the nursing perspective on improving hip fracture care in Ireland – part two

IN THE first part of this two-part hip fracture series, pain management, delirium, pressure ulcers and outcomes were discussed. This instalment will focus on constipation, fluid balance, nutrition, mobility, falls prevention and discharge planning, as well as discussing the Irish Hip Fracture Database.

Fluid balance and nutrition

Dehydration is common in older persons admitted to hospital and it is likely many hip fracture patients present dehydrated.¹⁴ Fasting, anaemia, delirium, PE, DVT, pneumonia and pressure ulcers can have a direct impact on fluid balance and nutrition. Attention must be paid to diminished urine output, hypotension, tachycardia, dry lips, diminished skin turgor, dizziness, weakness, restlessness, headaches and delirium as signs of dehydration.

Fluid and electrolyte resuscitation should begin upon presentation in the emergency department. Clinical and laboratory tests should identify deficiencies that need to be corrected. Pre-operatively, nurses should ensure that adequate hydration and, where possible, nutrition is maintained. Mouth care is very important. Older patients have a diminished thirst reflex so drinks should be offered regularly and it is important that drinks are easily reached by patients. Strict recording of fluid intake and output is key to getting the balance right. Monitoring the patient's vital signs regularly will also help to support adequate hydration. Important signs

to observe are: urinary output less than 30cc per hour, increasing blood pressure, shortness of breath, moist breath sounds and odema.¹⁵ Monitoring of renal function should coincide with the nursing care and laboratory tests should be promptly reported to the patient's team.

Malnutrition is characterised by diminished hunger, thirst, chronic illness patterns, dentition issues and social isolation. As many as 50% of patients admitted to an orthopaedic unit suffer from malnutrition and are more likely to suffer surgical site infections, catheter associated urinary tract infections and pressure ulcers.¹⁶

A nutritional assessment should be considered on all hip fracture patients on admission, including recording weight, nutrition history and difficulties with speech and swallowing. Fasting for theatre should be kept to a minimum. Food records should be kept for patients identified as being at risk and diet should be encouraged especially protein and energy supplementation. Optimise intake by ensuring dentures are correctly fitted, patients are positioned properly and are assisted with feeding when appropriate. A review should be carried out by a dietician for additional nutritional support when required.

Constipation and urinary catheters

From admission constipation prevention should be considered. Decreased mobility, fasting and opioid medications are some

common contributing factors. Consider abdominal pain, decreased appetite, vomiting, abdominal distension and rectal pain as signs of constipation.¹⁵ Ensure you know the baseline pattern of bowel movements for each patient and document this daily.

Hospitals can be an undignified place to go to the toilet. Dignity, respect and privacy should be provided optimally to ensure as little distress as possible for patients going to the toilet in a ward environment. Good signage of bathrooms and ease of contact with staff if help is required will help put patients' minds at ease. A regular toileting regime is beneficial.

Adequate hydration and diet should be encouraged as much as possible, especially high fibre foods. Encourage patients to keep active to help keep their bowel pattern regular. Administer laxatives where appropriate.

Indwelling urinary catheters should only be inserted when necessary and removed at the earliest possible opportunity to reduce the risk of catheter acquired urinary tract infections (CAUTI). Catheters can be cumbersome and limit mobility, cause pain and delirium, and are associated with an increased risk of mortality.¹⁵ The indications for inserting a catheter are urinary retention and pressure ulcers grade three and four in the perineal and sacral area, if patients need close cardiac or renal monitoring, comfort care for terminally ill patients and for prolonged surgical intervention.¹⁷ A high

suspicion of a UTI should be considered for older patients with a hip fracture.

Mobility

Optimising mobility in hip fracture patients is predominantly a nursing role. The more independence a patient can gain the better their outcomes. Working collaboratively with physiotherapists, we should encourage patient mobility and self care as much as possible.

Simply sitting the patient out of bed on the first day after surgery is a good start. Then gentle encouragement to go further each day should follow. Patients should sit out at mealtimes and if required get into bed for a rest in between. Long periods of immobilisation will make mobility more difficult and daunting. Anticipate that the patient will have pain initially when mobilising so prepare the patient before they move, make sure they have enough analgesia and that it is taking effect before they try to mobilise. We should aim to mobilise patients at least twice a day.⁸

Patients who had good pre-fracture mobility should aim to get back to close to that level again. This includes patients with cognitive impairment. Encouragement to self care should be supported, especially when it comes to activities of daily living, such as feeding, washing, dressing and toileting. You should ensure adequate nutrition so patients will have the energy to mobilise. The multidisciplinary team should work together to determine if a patient may need rehabilitation or another form of supported care.

Falls prevention and bone health

The majority of hip fractures result from a low-trauma fall. Falls combined with compromised bone strength (osteoporosis) result in fractures. As many as 40% of hip fracture patients have had previous fragility fractures and they are more likely to refracture so it is never too late to address falls and bone health.¹⁸

Hospitals are busy unfamiliar environments with many risk factors for falls. Encourage patients to wear suitable footwear, glasses and hearing aids (if required), to call for help before mobilising alone, to sit on the edge of the bed for a couple of minutes before getting up to mobilise, and make sure there are no obstacles in the way. The cause of the fall should be identified and falls prevention advice given to the patient before discharge.

By having a fall they are more likely to have another fall in the future. Many older patients live alone and discussing a mechanism of getting help should be broached,

Table 1: The Blue Book Standards

All hip fracture patients should:	
1	Be admitted to an orthopaedic ward within four hours of presentation
2	Have surgery within 48 hours of admission
3	Be assessed and cared for to minimise risk of developing a pressure ulcer
4	Have routine access to orthogeriatric medical support
5	Be assessed for need for bone-protective therapy to prevent fractures
6	Have a multidisciplinary falls assessment

for example personal alarms that can be worn on the wrist or around the neck that can be easily pressed to activate help.

Bone health should be discussed. It is important that the patient, irrespective of age, is made aware that their bones are weaker and they are at risk of future fractures.

To minimise this risk, patients should be encouraged to take adequate calcium and vitamin D, if this can't be achieved through diet then supplements should be prescribed and also treatments to strengthen their bones. Reinforce the need to comply with these treatments.¹⁹

Discharge planning

Hip fracture patients have a high re-admission rate. Discharge planning should begin at admission. Explain the plan of care with the patient while admitted and the expectation that they should get home or back to their pre-fracture living conditions. Include the patient in their discharge plan, for patients with diminished capacity or dementia the family or carers should also be included. It is important to ask the patient their expectations about discharge and how they feel about going home again.

Patients' readiness for discharge should be considered. Older patients and patients living alone tend to feel less ready.²⁰ They have been in a very supported environment and can be discharged to a home where they are alone so ease that transition by making sure they know who to contact if help is needed.

Information about what happens after discharge, wound care, services in the community, outpatients appointments and advice about walking, driving and possibly working should be explained.

Irish Hip Fracture Database

The Irish Hip Fracture Database (IHFD) is a national clinical audit developed to improve hip fracture care and outcomes in Ireland. Through the synergy of audit, clinical standards and feedback, it aims to provide a nationwide platform on which each individual service can effectively measure, compare and ultimately improve their service provision.

The implementation of a hip fracture database has been shown to improve the quality of care of hip fracture patients in other countries.²¹ In 2007, the British Orthopaedic association and British Geriatrics Society published the *Blue Book - The care of patients with fragility fractures*, which describes six quality care standards derived from evidence-based clinical practice (*Table 1*).²² By using these care standards, the National Hip Fracture Database (UK) has driven annual improvements in hip fracture care since 2007.²³

Some 15 out of the 16 trauma units in Ireland managing hip fracture patients are contributing to the IHFD. The data is being collected predominantly by nursing staff with some allied health professionals and clinicians also participating. The first report published by the IHFD earlier this year shows casemix, surgery, outcomes and comparison with the blue book standards. This will allow all the stakeholders involved in hip fracture care compare and improve a variety of aspects of the care locally and nationally. The full IHFD 2013 report can be viewed at www.noca.ie

Conclusion

Hip fractures are devastating injuries that result in a high rate of morbidity and mortality in older patients. With the burden on healthcare providers expected to almost double in the next two decades, now is the opportune time to make a change and improve our management and prevention of these injuries. Nurses are uniquely positioned to make a significant impact on this group of patients. Through audit and feedback of our care, pathways and processes can be refined and standardised to support older patients with fragility fractures. Join in the fight against falls and osteoporosis by educating our patients at every opportunity.

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References available on request from nursing@medmedia.ie (Quote: Brent L. WIN 2014 22 (8) 31-32)

Note: The third national hip fracture conference will be held in RCSI on March 6, 2015 and all are welcome. Enquiries can be made by email to: louise.brent@hse.ie