Nursing the Patient Post Fractured Neck of Femur

Rosemary Masterson
Nurse Tutor
Cappagh National Orthopaedic Hospital
MSc (Nursing), BNS, RNT, RGN, ENB 219
Presentation Overview

• This presentation will identify a number of nursing problems that hip fracture patients are at risk of and will critically discuss the nursing care with specific reference to a group of important and relevant nursing issues.

• The following slides highlight a number of problems that this patient group are at risk of and is not exhaustive.
Post Operative Nursing Considerations

• The risk of:
  – Alteration in relation to their ABC (hypotension / hypothermia / hypovolaemia)
  – Urinary retention / incontinence
  – Nausea / vomiting
  – Neurovascular deficit
  – Infection
  – Being unable to maintain personal hygiene / dressing
  – DVT / PE
Post Operative Nursing Considerations

• The Risk of (continued)
  – Difficulty with regaining mobility / regaining independence
  – Further falls / future fractures
  – Pressure ulcer development
  – Delirium
  – Unresolved pain
  – Constipation
  – Nutritional deficit / dehydration
  – Delayed Discharge
What is a Pressure Ulcer?

- **Definition**
  - A localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear.

- **Stage / Category 1 – Non blanchable erythema**
  - Intact skin with non-blanchable redness of a localized area usually over a bony prominence

- **Stage / category 2 – Partial thickness skin loss**
  - Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister

- **Stage / category 3 – Full thickness skin loss**
  - Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunnelling

(NPUAP & EPUAP 2014)
What is a Pressure Ulcer?

- **Stage / category 4 – Full thickness skin loss**
  - Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunnelling.

- **Unstageable / Depth unknown**
  - Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore Category/Stage, cannot be determined.

- **Reporting of grade 2 or above**
  (NPUAP & EPUAP 2014)
Risk of Pressure Ulcer Development

- NPUAP & EPUAP 2014 recommend:
- Baseline assessment on admission (Risk assessment tool / skin assessment / clinical judgement) as soon as possible but within 8 hours of admission / repeat according to the individual patient acuity and if there is a significant change in the patient's condition
  - Vulnerability to pressure damage because of immobilisation begins with the initial fracture, the individual may have fallen and been lying on a hard surface for several hours before arrival in the ED, then on a trolley in ED for a period of time
  - Consider the use of pressure relieving mattresses throughout the continuum of care including, emergency room, the peri-operative area and the nursing unit.
  - It is possible to reduce this risk by introducing an evidence based pathway that includes early surgery and optimizing fluid and nutritional balance which is a clinical imperative for these vulnerable patients.
Risk of Pressure Ulcer Development

• Preventative skin care
  – Keep skin clean and dry
  – Do not massage or vigorously rub skin that is at risk of pressure ulcers
  – Develop and implement an individualized continence management plan
  – Protect the skin from exposure to excessive moisture with a barrier product in order to reduce the risk of pressure damage
  – Consider using a skin moisturizer to hydrate dry skin in order to reduce risk of skin damage (NPUAP & EPUAP 2014)
Risk of Pressure Ulcer Development

- Preventative strategies
  - Consider applying a polyurethane foam dressing to bony prominences (e.g., heels, sacrum) for the prevention of pressure ulcers in anatomical areas frequently subjected to friction and shear
  - Consider the need for additional features such as ability to control moisture and temperature when selecting a support surface
  - Reposition all individuals at risk of, or with existing pressure ulcers, unless contra-indicated
  - Consider the condition of the individual and the pressure redistribution support surface in use when deciding if repositioning should be implemented as a prevention strategy.
  - Consider the pressure redistribution support surface in use when determining the frequency of repositioning (NPUAP & EPUAP 2014)
Risk of Pressure Ulcer Development

• Preventative strategies
  – Avoid subjecting the skin to pressure and shear forces.
  – Avoid positioning the individual on bony prominences with existing non-blanchable erythema
  – Use manual handling aids to reduce friction and shear.
  – Do not leave moving and handling equipment under the individual after use, unless the equipment is specifically designed for this purpose.
  – Avoid positioning the individual directly onto medical devices, such as tubes, drainage systems or other foreign objects (NPUAP & EPUAP 2014)
Risk of Pressure Ulcer Development

• Preventative strategies
  – Do not leave the individual on a bedpan longer than necessary.
  – Use the 30° tilted side-lying position (alternately, right side, back, left side) or the prone position if the individual can tolerate this and her/his medical condition allows
  – Increase activity as rapidly as tolerated
Risk of Pressure Ulcer Development

• Nutritional assessment – see slide on ‘Risk of nutritional deficit / dehydration’

• Documentation
  – Record repositioning regimes, specifying frequency and position adopted, and include an evaluation of the outcome of the repositioning regime (NPUAP & EPUAP 2014)
Risk of Delirium

• Rates can range from 16% - 62% after hip fracture (Butler Maher et al 2012)

• Definition
  – Is characterised by an acute fluctuating onset of confusion, disturbance in attention, disorganised thinking and / or a decline in level of consciousness
  – Patients who experience acute confusion have increased risk of complications and negative outcomes

• NICE 2010, National Dementia Training Project Programme 2012, Tsang 2014

• Baseline assessment on admission
Risk of Delirium

- Consider causes
  - Issues that increase vulnerability
    - Previous history
    - > 75 years of age
    - Sensory deficits
    - Electrolyte disturbances – dehydration
    - Infection
    - Alcohol / substance abuse
    - Dependency on others for ADLs
Risk of Delirium

• Consider causes
  – Issues that can occur as a result of hospitalisation
    • Prolonged time to surgery
    • Medication additions or withdrawal / Polypharmacy
    • Immobility
    • Fluid overload / dehydration
    • Pain
    • Sleep disturbances
    • Constipation
Risk of Delirium

• Assessment continued
  – PRISM-E
    • is an example of an assessment tool used to uncover the root cause of the delirium by the Vancouver Island Health Authority Hospital
  – P – pain / poor nutrition
  – R – retention of urine / stool
  – I – infection (urine / chest / wound) / Immobility
  – S – Sleep disturbances / Sensory deficits
  – M – Metabolic imbalance / mental status / medications
  – E – environmental changes

(cited in: Butler Maher et al 2012)
Risk of Delirium

• Investigate
  – Detection often depends on the close observations of an experience nurse or care provider
  – Ongoing assessment and documentation of findings may help to detect subtle changes
  – Patients undergoing emergency orthopaedic surgery were nearly twice as likely to experience confusion as patients undergoing elective orthopaedic surgery

• Monitor / act

• Involvement of the family / carers
Risk of Unresolved Pain

• Under managed pain after surgery can impede mobility, functional impairment and prolonged hospital stay (Butler Maher et al 2012)

• Assessment
  – High levels of pain directly result in increased levels of anxiety and high anxiety directly influence a person's pain perception

• Implementation
  – Adjustments / monitoring for side effects / Pain can also be an early warning sign of a complication such as infection / DVT
Risk of Unresolved Pain

• Implementation
  – Cognitively impaired older adults receive as little as \( \frac{1}{3} \) to \( \frac{1}{2} \) the amount of pain relief that cognitively intact patients receive, even in the presence of mild to moderate dementia or delirium, patient can reliably report pain through simple questions and valid tools (Butler Maher et al 2012)
  – Plan the administration of medication prior to care or activities e.g. repositions, mobilising, wound care

• People with hip fracture are given prompt and effective pain relief medication throughout their hospital stay, starting with paracetamol and using stronger drugs if needed (Opioids / nerve blocks) (NICE 2012)
Risk of Unresolved Pain

• Pharmacological Multimodal approach / Non pharmacological approach
  – Nerve blocks if administered prior to surgery, can provide substantial pain relief reducing the need for opioid analgesia.
  – Nurse initiated fascial iliacal blocks have improved pain management effectiveness and safety
  – Start low and go slow with older patients!!!!
  – AVOID NSAIDS

• Re-evaluation

• Documentation

• Complications of unresolved pain
  – Increased risk of pressure ulcer development
  – Delayed rehabilitation
Risk of Constipation

• History / baseline
• Consider possible factors that increase the risk of this for the patient (diet / dehydration /mobility pattern changes /opioids or codeine based analgesics)
• Prevention / Management of the issue
  – Emphasis on privacy / dignity / access to toilet facilities
  – Avoid long fasting periods
  – Encourage fluids (1.5 L) unless restricted
  – Consider prophylactic stool softeners / laxative administration
Risk of Constipation

• Prevention / Management of the issue
  – Regular toileting
  – Close monitoring of bowel habit / documentation
  – Aim for a bowel movement by post op day 2 then 48 hrs thereafter (Butler Maher et al 2012)
  – Mobility
Risk of Nutritional Deficit / Dehydration

• Assessment (e.g. MUST score) on admission / assessing ability to eat independently / weight status / weight loss if any / total nutrient intake
• Minimise periods of fasting periods in accordance with policy
• Dietitian referral / if required, speech therapy referral
• Provide individualized energy intake (weight dependent / fortified intake / enteral or parenteral support / protein requirements / balanced diet with vitamin / mineral intake
Risk of Nutritional Deficit / Dehydration

• Hydration
  – Assess for signs of dehydration (diminished output / hypotension / tachycardia / dry lips / diminished skin turgor / muscle weakness / dizziness / restlessness / delirium
  – Provide adequate hydration for the individual based on their needs
  – Monitor Fluid intake / output / signs of dehydration / Management of nausea / vomiting
  – Contribute to the development of delirium, renal failure, pressure ulcers, falls, VTE, impaired mobility, catheter associated UTIs
• Dietary needs (high protein) / hydration (adequate) should be encouraged so that patients can tolerate mobilisation and activity (Butler Maher et al 2012)
• Documentation
Discharge Planning

• Commenced on admission
  – Predicted date of discharge planned / updated after theatre

• Gather information
  – Home situation / support / environmental issues / equipment needs

• MDHCT / referral & involvement
  – Geriatrician / physio / OT / nurse / orthopaedic team / social worker

• Family involvement
• Documentation

(Draft Integrated Hip care pathway 2015)
Publications by Butler Mater et al

2012 - These evidence based articles provide information on best practice nursing care of patients with fragility fractures in acute care hospitals.
In Conclusion

• This group of patients provide a significant challenge to nurses and all health care professionals in managing their care

• Developing our knowledge base, setting standards, encouraging education, undertaking audits, acting on the results can contribute to this challenge
References

• Clinical Care Programme for Orthopaedics / HSE Integrated Care Pathway for hip fractures, Draft document 2015.


References


References


Thank you for listening

rosemary.masterson@cappagh.ie