Best Practice Nursing Care Standards for Older Adults with Fragility Hip Fracture

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23 May 2019

International Collaboration of Orthopaedic Nursing: ICON

• A collaboration of orthopaedic nursing organizations from 17 countries/regions across 4 continents
• Committed to promoting and advancing the practice of orthopaedic nursing globally
• Through the application of the highest standards of orthopaedic nursing practice and care and is
• Dedicated to providing state of the art research and best practice guidelines to orthopaedic nurses globally
Acute nursing care of the older adult with fragility hip fracture: An international perspective

- Patients with fragility hip fracture are the most common orthopaedic inpatients but
- Despite this, many orthopaedic nurses have not received education specifically related to caring for this group of patients
- In 2012/2013, the ICON Hip Fracture Work Group published two papers reviewing acute care Nurse Sensitive Quality Indicators specific to fragility hip fracture and providing evidence-based care guidelines for orthopaedic nurses.

Best Practice Nursing Care Standards for Older Adults with Fragility Hip Fracture

Recognizing both the growing numbers of fragility hip fractures globally and the extensive research in nursing, orthopaedics, rehabilitation and other related disciplines since the 2012/2013 publications, ICON has updated these Guidelines published as:

The International Collaboration of Orthopaedic Nursing (ICON): Best Practice Nursing Care Standards for Older Adults Fragility Hip Fracture
International Journal of Orthopaedic and Trauma Nursing
32 (2019)3-26
Best Practice Nursing Care Standards for Older Adults with Fragility Hip Fracture

- Orthopaedic nursing experts from 15 countries across 4 continents participated in the update
- Original Nurse Sensitive Quality Indicators have been revised consistent with current evidence on:
  - Pain
  - Delirium
  - Pressure Ulcers/Injuries
  - Fluid Balance/Nutrition
  - Elimination: Constipation/CAUTI
  - Secondary Fracture Prevention

Information on Frailty and Sarcopenia have been added as these conditions are now recognized to be key components of patient ability to recover.

Section on Mobility has been expanded.

Goal of this publication is to provide nurses who care for older adults with fragility hip fracture with a framework to promote optimal evidence-based care for this vulnerable population.
Frailty: no current specific definition but widely accepted components include
• characterized by increased vulnerability to stressors
• that increase the individual’s chance of functional decline and adverse health outcomes
• can be physical, psychological or a combination: when physical frailty occurs along with cognitive impairment

Frailty
• early diagnosis can have an important role in preventing fractures in community dwelling older adults
• A range of tools are available to assess frailty
• Dynamic condition: can improve or worsen over time
• Emerging evidence to support improvement with interventions in 4 areas: exercise, nutrition, Vitamin D supplementation, reduction of polypharmacy
Sarcopenia

- Age-related loss of muscle mass and strength
- Affects balance, gait, and overall ability to perform activities of daily living (ADLs)
- Muscle strength is a critical component of walking and its decrease contributes to falls
- Risk factors: lack of exercise, age related decrease in hormones, decrease in ability to synthesize protein

Sarcopenia: Interventions

- Exercise: resistance and aerobic
- Nutrition: higher daily protein intake
- Pharmaceutical agents (under investigation with no clear evidence of benefit yet)
  - Growth hormone
  - Anabolic Steroids/Testosterone
  - Selective Androgen Receptor Modulators (SARMs)
  - Myostatin, Vitamin D, ACE inhibitors
MOBILITY

• Nurses play a pivotal role in early and frequent mobilisation of hip fracture patients. Patients should be weight bearing (standing or walking) within 24 hours of surgery.

• Patients cite fatigue and pain as the most frequent reasons for not completing their mobility goals during the first 3 postop days.

• More upright time (standing and walking) by discharge is associated with reduced fear of falling.

PAIN

• Older patients with hip fracture are at high risk of undertreated acute pain after surgery resulting in higher rates of delirium, impaired mobility, and long term functional loss.

• Assess pain regularly using a validated tool. Patients with mild to moderate dementia or delirium can reliably report pain. For patients with severe cognitive impairment, use a validated pain behaviour scale.

• Use a multimodal approach with geriatric appropriate medications and doses.

• Regional pain blocks are recommended including perioperative fascia iliaca block. Blocks can reduce the amount of opioids required to manage pain.
DELIRIUM

• Delirium is prevalent in the hip fracture population and is associated with poor outcomes.
• Delirium is often overlooked or misdiagnosed by health care providers.
• One in five hip fracture patients has a pre-existing dementia and these patients are more susceptible to developing delirium.
• Determine pre-hospital cognitive status.
• Use evidence based tools to screen for delirium every 12 hours and assess risk factors continually.

PREVENT PRESSURE ULCERS/INJURIES

• Prevention of pressure ulcer/injury is a marker for quality of nursing care.
• Pressure ulcer/injury can develop rapidly in this vulnerable population.
• Perform a head to toe skin inspection on admission.
• Risk assessment using a validated tool is essential to identify individuals more likely to experience skin breakdown.
FLUID BALANCE/NUTRITION

- Frail, older hospitalised patients are at high risk for dehydration, fluid overload, heart failure, and electrolyte imbalances.
- Minimize preoperative fasting per protocol and encourage early postop resumption of oral fluids.
- Malnutrition is a common, but overlooked problem, in hip fracture patients that increases the risk of postop complications.
- Screen patients on admission using a validated malnutrition risk assessment tool.

ELIMINATION

- **Prevent** constipation which is common in this patient population and can result in Delirium.
- Dehydration, poor fluid intake, immobility, and opioids contribute to constipation.
- 40% of all nosocomial infections are UTIs and 80% of these are associated with use of an indwelling urinary catheter.
- **Avoid** use of indwelling urinary catheters if possible or **discontinue** as soon as possible, but within 24 hours.
SECONDARY FRACTURE PREVENTION

- Hip fracture patients are at high risk for subsequent fracture and that risk persists for at least 10 years.
- Yet, in a recent review of over 38,000 hip fracture patients less than 20% were screened for osteoporosis (Sobolev et al, 2015).
- Osteoporosis assessment and follow-up are essential.
- Appropriate follow-up and treatment can reduce risk.

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Access free of charge online at:
https://doi.org/10.1016/j.ijotn.2018.11.001

Thank you to Julie Santy-Tomlinson, Editor, IJOTN and Elsevier for providing open access to this important information.
Greetings from Ann and Anita