QUALITY STANDARDS

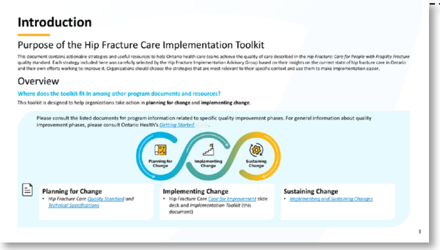
Hip Fracture Care

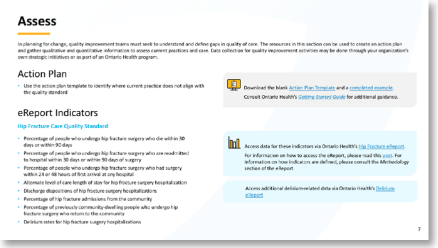
Implementation Toolkit

2025

Ontario Health

Table of Contents





Use the links on page 10 for additional navigation.

Introduction

Purpose of the Hip Fracture Care Implementation Toolkit

This document contains actionable strategies and useful resources to help Ontario health care teams achieve the quality of care described in the *Hip Fracture: Care for People with Fragility Fracture* quality standard. Each strategy included here was carefully selected by the Hip Fracture Implementation Advisory Group based on their insights on the current state of hip fracture care in Ontario and their own efforts working to improve it. Organizations should choose the strategies that are most relevant to their specific context and use them to make implementation easier.

Overview

Where does the toolkit fit in among other program documents and resources?

This toolkit is designed to help organizations take action in **planning for change** and **implementing change**.

Please consult the listed documents for program information related to specific quality improvement phases. For general information about quality improvement phases, please consult Ontario Health's *Getting Started Guide*.

Planning for Change

- Hip Fracture Care *Quality Standard* and *Technical Specifications*

Implementing Change

- Hip Fracture Care *Case for Improvement* slide deck and *Implementation Toolkit* (this document)

Sustaining Change

- *Implementing and Sustaining Changes*

Why?

At the release of the eReport in May 2025, Ontario data showed substantial variability in the quality of hip fracture care across regions and organizations. While some organizations have made significant improvements in specific areas such as wait time to surgery, the Hip Fracture eReport indicates that **no hospital is consistently achieving high performance across all key performance indicators**.

In September 2025, Ontario Health announced a 3-year roadmap for hip fracture improvement, identifying priority topics (representing 5 quality statements in the *Hip Fracture Care Quality Standard*) for initial focus based on their potential to improve patient outcomes and reduce key hospital performance indicators such as length of stay, alternate level of care, and readmissions:

- **Surgery Within 48 Hours (see quality statement 2 in the quality standard)**
  - Shortened time to surgery can reduce patient pain and length of hospital stay, and is associated with decreased morbidity and mortality[1,2]
- **Weight-Bearing as Tolerated (see quality statement 8 in the quality standard)**
  - Full weight-bearing enables early mobilization, supports people’s return to their prefracture level of mobility, and reduces the risk of adverse events associated with restricted weight-bearing, and prolonged immobility[1,3]
- **Daily Mobilization (see quality statement 9 in the quality standard)**
  - Benefits of early mobilization include decreased length of hospital stay and fewer complications associated with prolonged time spent in bed[1]
- **Screening for and Managing Delirium (see quality statement 10 in the quality standard)**
  - Preventing delirium among people with hip fracture can decrease length of hospital stay, and reduce the risk of falls, pressure injuries, and death[4]
- **Osteoporosis Management (see quality statement 14 in the quality standard)**
  - Treatment for osteoporosis reduces the risk of subsequent fractures[5]

About Hip Fracture Care

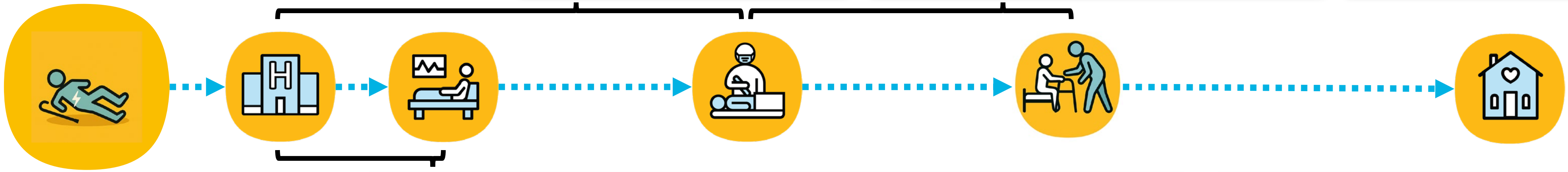
PRIORITY

Ontario Health has identified 5 priority topics for initial focus in fragility hip fracture care improvement. These topics align with quality statements 2, 8, 9, 10, and 14 of the quality standard.

Surgery within 48 hours (QS 2)

Weight-bearing as tolerated (QS 8)
- 24 hours after surgery

Daily mobilization (QS 9)



Screening for and managing delirium (QS 10)
- Assessment for delirium upon admission and every 12 hours

Osteoporosis management (QS 14)

Before Surgery

Multimodal analgesia (QS 3)
- Pain assessed within 30 minutes

Emergency department management (QS 1)
- Suspected hip fractures diagnosed within 1 hour
- Transferred to inpatient bed within 8 hours

Surgery

Surgery for stable intertrochanteric fractures (QS 4)
- Sliding hip screw or cephalomedullary nail

Surgery for subtrochanteric or unstable intertrochanteric fractures (QS 5)
- Intramedullary nail

Surgery for displaced intracapsular fractures (QS 6)
- Almost always arthroplasty (total or hemi)

After Surgery

Postoperative blood transfusions (QS 7)
- Not if asymptomatic and hemoglobin ≥80 g/L

Postoperative management (QS 11)
- Principles of geriatric care

General

Information for patients, families, and care partners (QS 12)
- Tailored

Rehabilitation (QS 13)
- Interprofessional

Follow-up care (QS 15)
- Discharged with scheduled appointments:
  - Primary care, within 2 weeks
  - Orthopedic, within 12 weeks

Abbreviation: QS, quality statement.

How to Use This Toolkit

Who is this toolkit for?

Clinicians, health care teams, and decision-makers involved in hip fracture care

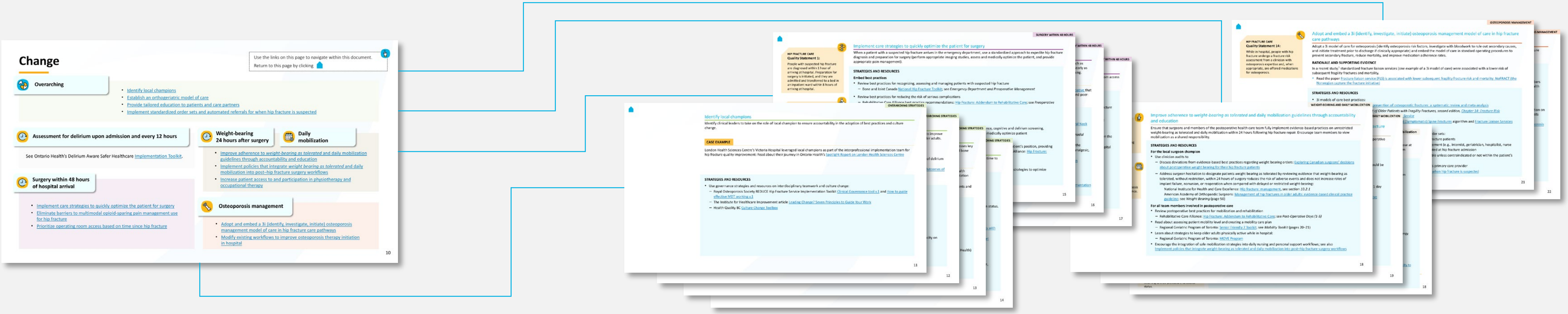
What are the components of this toolkit?

This toolkit contains information on:

- How to narrow the scope and focus of quality improvement efforts to where they are most needed, including where to look for data
- Proven strategies, with useful tools, practical examples, and supporting evidence, which can be used to accomplish change

Use the information provided in the **Assess** section to assess your organization's performance – make an action plan and gather information about current practices – to determine whether the level of care outlined in the Hip Fracture quality standard is being achieved.

The **Change** section of this toolkit is designed as a menu of potential strategies that hospitals might implement to improve care along the hip fracture pathway, but not every suggested strategy will be applicable to all organizations. Each organization should select those that are most relevant to their specific context and leverage the associated resources to make implementation easier.



Assess

In planning for change, quality improvement teams must seek to understand and define gaps in quality of care. The resources in this section can be used to create an action plan and gather qualitative and quantitative information to assess current practices and care. Data collection for quality improvement activities may be done through your organization's own strategic initiatives or as part of an Ontario Health program.

Action Plan

- Use the action plan template to identify where current practice does not align with the Hip Fracture quality standard

Download the blank Action Plan Template and a completed example.

Consult Ontario Health's *Getting Started Guide* for additional guidance.

eReport Indicators

Hip Fracture Care Quality Standard

- Percentage of people who undergo hip fracture surgery who die within 30 days or within 90 days
- Percentage of people who undergo hip fracture surgery who are readmitted to hospital within 30 days or within 90 days of surgery
- Percentage of people who undergo hip fracture surgery who had surgery within 24 or 48 hours of first arrival at any hospital
- Alternate level of care length of stay for hip fracture surgery hospitalization
- Discharge dispositions of hip fracture surgery hospitalizations
- Percentage of hip fracture admissions from the community
- Percentage of previously community-dwelling people who undergo hip fracture surgery who return to the community
- Delirium rates for hip fracture surgery hospitalizations

Access data for these indicators via Ontario Health's Hip Fracture eReport.

For information on how to access the eReport, please read this post. For information on how indicators are defined, please consult the *Methodology* section of the eReport.

Access additional delirium-related data via Ontario Health's Delirium eReport

Other Programs With Data Resources

Quality Improvement Plan Program

- Percentage of people who undergo hip fracture surgery within 48 hours of first arrival at any hospital (2026/27)

For QIP indicator definitions and data access information, please consult *2026/27 QIP Indicator Technical Specifications*.

GENERAL STRATEGIES

Monitor your organization’s performance on key metrics related to hip fracture

Access data from centrally reported mechanisms (e.g., via Ontario Health eReports) and with local collection

Track data using an organizational dashboard and review data regularly with an interdisciplinary team to identify opportunities for improvement

Ontario Surgical Quality Improvement Network

Hospitals participating in ONSQIN can collect targeted hip fracture procedure data via NSQIP to track postoperative outcomes and performance. Please contact ONSQIN@ontariohealth.ca for assistance.

Statement-Specific Indicators

QS 2: Surgery Within 48 Hours

- Percentage of people who undergo hip fracture surgery who had surgery within 48 hours of first arrival at any hospital
- Median and 90th percentile number of hours people wait to receive hip fracture surgery following first arrival at any hospital

QS 8: Weight-Bearing as Tolerated

- Percentage of people with hip fracture who achieve weight-bearing as tolerated within 24 hours following surgery

QS 9: Daily Mobilization

- Percentage of people who undergo hip fracture surgery who are mobilized at least once daily postoperatively while in hospital (local data collection)

QS 10: Screening for and Managing Delirium

- Percentage of people with hip fracture who are assessed for delirium with a standardized, validated tool within 8 hours of arrival at hospital
- Percentage of people with hip fracture who are assessed for delirium with a standardized, validated tool within 8 hours of arrival at hospital
- Percentage of people with hip fracture who are assessed for delirium with a standardized, validated tool every 12 hours while in hospital
- Percentage of people with hip fracture who are assessed for delirium with a standardized, validated tool after transitioning to a new medical setting
- Percentage of people with hip fracture who are assessed for delirium with a standardized, validated tool after a change in medical status

QS 14: Osteoporosis Management

- Percentage of people with hip fracture who receive an osteoporosis assessment from a clinician with osteoporosis expertise
- Percentage of people with hip fracture and diagnosed with osteoporosis who are started on an osteoporosis medication while in hospital

For information on how indicators are defined, please consult the Hip Fracture Quality Standard *Technical Specifications*.

Change

Use the links on this page to navigate within this document.

Return to this page by clicking

Overarching strategies

- Identify local champions
- Establish an orthogeriatric model of care
- Provide tailored education to patients and care partners
- Implement standardized order sets and automated referrals for when hip fracture is suspected

Screening for and managing delirium (QS 10)

See Ontario Health's Delirium Aware Safer Healthcare Implementation Toolkit.

Surgery within 48 hours (QS 2)

- Implement care strategies to quickly optimize the patient for surgery
- Eliminate barriers to multimodal opioid-sparing pain management use for hip fracture
- Prioritize operating room access based on time since hip fracture

Weight-bearing as tolerated (QS 8)

Daily mobilization (QS 9)

- Improve adherence to *weight-bearing as tolerated* and daily mobilization guidelines through accountability and education
- Implement policies that integrate *weight bearing as tolerated* and daily mobilization into post–hip fracture surgery workflows
- Increase patient access to and participation in physiotherapy and occupational therapy

Osteoporosis management (QS 14)

- Adopt and embed a 3i (identify, investigate, initiate) osteoporosis management model of care in hip fracture care pathways
- Modify existing workflows to improve osteoporosis therapy initiation in hospital

Abbreviation: QS, quality statement.

Identify local champions

Identify clinical leaders to take on the role of local champion to ensure accountability in the adoption of best practices and culture change.

CASE EXAMPLE

London Health Sciences Centre's Victoria Hospital leveraged local champions as part of the interprofessional implementation team for hip fracture quality improvement. Read Ontario Health's Spotlight Report on London Health Sciences Centre.

STRATEGIES AND RESOURCES

- Use governance strategies and resources on interdisciplinary teamwork and culture change:
  - Royal Osteoporosis Society REDUCE Hip Fracture Service Implementation Toolkit: Clinical Governance for Effective Hip Fracture Care and Effective Multidisciplinary Team Working in Hip Fracture Care
  - The Institute for Healthcare Improvement article: Leading Change? Seven Principles to Guide Your Work
  - Health Quality BC: Culture Change Toolbox

HIP FRACTURE CARE QUALITY STATEMENT 11

Postoperative Management

People with hip fracture receive postoperative care from an interprofessional team in accordance with principles of geriatric care.

Establish an orthogeriatric model of care

Establish an orthogeriatric model of care by improving clinician and interprofessional team training on care for older adults to improve care experiences and reduce complications. Orthogeriatric care can be provided by any clinician with training on care for older adults.

RATIONALE AND SUPPORTING EVIDENCE

A systematic review[6] showed that orthogeriatric care reduces length of stay, in-hospital mortality, 1-year mortality, and rate of delirium in people with hip fracture. It was also found that orthogeriatric models of care may reduce complications and costs.

- Read how orthogeriatric care can improve patient outcomes and reduce costs: Effects of Orthogeriatric Care Models on Outcomes of Hip Fracture Patients: A Systematic Review and Meta-Analysis

STRATEGIES AND RESOURCES

For health system planners

- Read about key aspects of orthogeriatric care:
  - Post Hip Fracture Orthogeriatric Care position paper
- Follow guidance on how to establish an orthogeriatric service:
  - Orthogeriatrics: The Management of Older Patients with Fragility Fractures, second edition; see *Chapter 5: Establishing an Orthogeriatric Service*

For clinicians

- Learn best practices in the care of older adults who have suffered a fragility hip fracture (build interdisciplinary team capacity on best practices through education and mentorship):
  - Project ECHO community of practice: ECHO Orthogeriatrics

HIP FRACTURE CARE QUALITY STATEMENT 12

Information for Patients, Families, and Care Partners

People with hip fracture and their families and care partners are given information on patient care that is tailored to meet their needs and delivered at appropriate times in the care continuum.

Provide tailored education to patients and care partners

Equip patients and families to be partners in care by providing them with multimodal education in multiple languages that addresses key aspects of hip fracture care, including screening for and preventing delirium, weight-bearing as tolerated, daily mobilization, and bone health management.

CASE EXAMPLE

Ontario hospitals that have made improvements in hip fracture outcomes, including London Health Sciences Centre, Trillium Health Partners, and Sunnybrook Health Sciences Centre, have updated their patient and family education materials as a key implementation strategy.

By providing educational materials in multiple formats and multiple languages, these organizations were able to help more patients and families understand their role in optimizing recovery as the patient moved along the care pathway.

STRATEGIES AND RESOURCES

- Read about the importance of patient and family education:
  - Post Hip Fracture Orthogeriatric Care; see *Follow-up Care*
- View examples of patient and care partner education materials:
  - Ontario Health Quality Standards: Hip Fracture Patient Guide
  - London Health Sciences Centre's patient education booklet: A Patient's Guide to Hip Fracture Surgery and Recovery
  - Sunnybrook Health Sciences Centre patient education poster: Recovery Tips After Fracture
  - Vancouver Coastal Health patient education booklet: Fresh Start Toolkit: Fracture Recovery for Seniors at Home
  - Trillium Health Partners

    One-page patient information sheet: Recovering From Hip Fracture Surgery

    Patient education booklet: Your Guide to Fractured Hip Repair

HIP FRACTURE CARE QUALITY STATEMENT 1

Emergency Department Management

People with suspected hip fracture are diagnosed within 1 hour of arriving at hospital. Preparation for surgery is initiated, and they are admitted and transferred to a bed in an inpatient ward within 8 hours of arriving at hospital.

HIP FRACTURE CARE QUALITY STATEMENT 2

Surgery Within 48 Hours

People with hip fracture receive surgery as soon as possible, within 48 hours of their first arrival at any hospital (including any time spent in a nonsurgical hospital).

Implement standardized order sets and automated referrals for when hip fracture is suspected

Use pathways and electronic order sets to embed best practices in routine procedure to expedite hip fracture diagnosis, reduce time to surgery, and reduce complications.

STRATEGIES AND RESOURCES

Standardize

- Read about the use of standardized order sets to expedite care:
  - Post Hip Fracture Orthogeriatric Care; see *Emergency Department Management*
- Use order sets that embed practices for appropriate imaging studies, preoperative bloodwork, electrocardiography and the assessment of medical comorbidities, home medications, prefracture functional status, fluid balance, cognition; and delirium status. View sample order sets:
  - Developed by Dr. Aliya Khan, Dr. Wasim Mansoor, Dr. Emil Schemitsch: Stronger Together Order Set
  - London Health Sciences Centre: Pre-operative and Post-operative Hip Fracture Order Set
  - Sunnybrook Health Sciences Centre: Admission Orders for Patients With Hip Fracture and Postoperative Orders for Patients With Hip Fracture
  - Trillium Health Partners: Adult Orthopaedics Fractured Hip Pre-operative Admission Order Set and Post Operative Order Set

Automate

- View a sample clinical pathway:
  - Alberta Health Services: Hip Fracture Surgical Care Pathway
  - Implement a workflow that generates automated referrals to key services, such as orthopaedics, general internal medicine, anaesthesia, geriatric medicine, social work, physiotherapy, occupational therapy

HIP FRACTURE CARE QUALITY STATEMENT 1

Emergency Department Management

People with suspected hip fracture are diagnosed within 1 hour of arriving at hospital. Preparation for surgery is initiated, and they are admitted and transferred to a bed in an inpatient ward within 8 hours of arriving at hospital.

HIP FRACTURE CARE QUALITY STATEMENT 2

Surgery Within 48 Hours

People with hip fracture receive surgery as soon as possible, within 48 hours of their first arrival at any hospital (including any time spent in a nonsurgical hospital).

Implement care strategies to quickly optimize the patient for surgery

When a patient with a suspected hip fracture arrives in the emergency department, use a standardized approach to expedite hip fracture diagnosis and preparation for surgery (perform appropriate imaging studies, assess and medically optimize the patient, and provide appropriate pain management).

STRATEGIES AND RESOURCES

- Review best practices for recognizing, assessing and managing patients with suspected hip fracture
  - Bone and Joint Canada National Hip Fracture Toolkit; see *Emergency Department and Preoperative Management*
- Review best practices for reducing the risk of serious complications
  - Rehabilitative Care Alliance best practice recommendations: Hip Fracture: Addendum to Rehabilitative Care; see *Preoperative,* page 4

Embed these practices in hip fracture order sets and care pathways:

- Perform appropriate imaging studies
- Assess medical comorbidities, pre-fracture functional status, evaluation of fluid balance, cognitive and delirium screening, preoperative bloodwork, electrocardiography, and evaluation of home medications; medically optimize patient
- Provide appropriate pain management
- Reduce risk for serious complications by following best practice recommendations on changing the patient's position, providing skin and heel care, encouraging foot and ankle exercises, and breathing exercises (Rehabilitative Care Alliance: Hip Fracture: Addendum to Rehabilitative Care; see *Preoperative*, page 4)

Coordinate transitional care

- Encourage hospitals that regularly transfer patients with hip fracture to your hospital to follow these same strategies to optimize patients for surgery

HIP FRACTURE CARE QUALITY STATEMENT 2

Surgery Within 48 Hours

People with hip fracture receive surgery as soon as possible, within 48 hours of their first arrival at any hospital (including any time spent in a nonsurgical hospital).

HIP FRACTURE CARE QUALITY STATEMENT 3

Multimodal Analgesia

People with suspected hip fracture have their pain assessed within 30 minutes of arriving at hospital and managed using a multimodal approach, including consideration of nonopioid systemic analgesics and peripheral nerve blocks.

Eliminate barriers to multimodal opioid-sparing pain management use for hip fracture

Increase the use of multimodal opioid-sparing pain management to address pain and reduce the incidence of complications such as delirium and constipation. Multimodal analgesia (ideally, regional nerve blocks) should be administered whenever possible, as early as possible. Regional nerve blocks can be performed by a medical professional of any specialty who has undergone sufficient training.

CASE EXAMPLE

The Ottawa Hospital increased the availability of regional analgesia for hip fracture patients through a quality improvement initiative that identified barriers, resulting in the adoption of a newly simplified, interdisciplinary care pathway for hip fracture anaesthesia, and peer-to-peer teaching to enhance skills among emergency medicine, anaesthesia and orthopedic staff and residents.

STRATEGIES AND RESOURCES

Increase clinician knowledge and skills

- Read how regional nerve blocks reduce pain and the need for intravenous opiates: Regional Nerve Blocks For Hip and Femoral Neck Fractures in the Emergency Department: A Systematic Review
- Read recommendations on regional nerve blocks within orthogeriatric care: Post Hip Fracture Orthogeriatric Care; see *Multi-modal analgesia/nerve blocks*
- Review information on how fascia iliac blocks should routinely be made available to people with hip fracture upon arrival in the emergency department and that the patient should receive the fascia iliac block from a physician trained to administer the analgesic, as soon as consent has been obtained
  - St. Michael's Unity Health Toronto knowledge translation sheet for registered nurses: Using a Fascia Iliac (FI) Block for pain management in pre-operative hip fracture patients

Apply lessons learned from others

- Learn from the experience of Ontario hospitals that implemented regional nerve blocks in the emergency department:
  - Read about barriers and facilitators identified by St. Michael's Unity Health Toronto in their published paper: Using Implementation Science to Promote the Use of the Fascia Iliaca Blocks in Hip Fracture Care

HIP FRACTURE CARE QUALITY STATEMENT 2

Surgery Within 48 Hours

People with hip fracture receive surgery as soon as possible, within 48 hours of their first arrival at any hospital (including any time spent in a nonsurgical hospital).

Prioritize operating room access based on time since hip fracture

Adopt policies and procedures that assign increasing urgency based on time elapsed since injury when prioritizing operating room access for hip fracture surgery.

STRATEGIES AND RESOURCES

- Recommendations for improving operating room capacity:
  - Bone and Joint Canada: National Hip Fracture Toolkit; see *Operating Room Priority Management, Designated Trauma/Fracture Time* section, page 22
- Medical directives to assign increase urgency assignment depending on how much time has elapsed since the time of injury:
  - Sunnybrook Health Sciences Centre Medical Directive example: Upgrading Priority Categories – Exceptions
  - For example:

    Book hip fractures as C case upon presentation to emergency department. Upgrade urgency to B case after 24 hours on the C list.

    Book hip fractures as urgent B directly if greater than 24 hours have passed since the injury (delayed presentation, hospital transfer, or delayed medical clearance).

HIP FRACTURE CARE QUALITY STATEMENT 8

Weight-Bearing as Tolerated

People with hip fracture are mobilized to weight-bearing as tolerated within 24 hours following surgery.

HIP FRACTURE CARE QUALITY STATEMENT 9

Daily Mobilization

After surgery, people with hip fracture are mobilized on a daily basis to increase their functional tolerance.

Improve adherence to *weight-bearing as tolerated* and daily mobilization guidelines through accountability and education

Ensure that surgeons and members of the postoperative health care team fully implement evidence-based practices on unrestricted weight-bearing as tolerated and daily mobilization within 24 hours following hip fracture repair. Encourage team members to view mobilization as a shared responsibility.

STRATEGIES AND RESOURCES

For the local surgeon champion

- Use clinician audits to
  - Discuss deviations from evidence-based best practices regarding weight bearing orders:
    Exploring Canadian Surgeons' Decisions About Postoperative Weight Bearing for Their Hip Fracture Patients
  - Address surgeon hesitation to designate patients weight bearing as tolerated by reviewing evidence that weight-bearing as tolerated, without restriction, within 24 hours of surgery reduces the risk of adverse events and does not increase rates of implant failure, nonunion, or reoperation when compared with delayed or restricted weight-bearing:
    National Institute for Health and Care Excellence: The Management of Hip Fracture in Adults; see section 10.2.1
    American Academy of Orthopaedic Surgeons: Management of Hip Fractures in Older Adults; see *Weight Bearing*, page 50

For all team members involved in postoperative care

- Review postoperative best practices for mobilization and rehabilitation
  - Rehabilitative Care Alliance: Hip Fracture: Addendum to Rehabilitative Care; see *Post-Operative Days (1-5)*
- Read about assessing patient mobility level and creating a mobility care plan
  - Regional Geriatric Program of Toronto: Senior Friendly 7 Toolkit; see *Mobility Toolkit*, pages 20–21
- Learn about strategies to keep older adults physically active while in hospital:
  - Regional Geriatric Program of Toronto: MOVE Program
- Encourage the integration of safe mobilization strategies into daily nursing and personal support workflows; see also Implement policies that integrate weight-bearing as tolerated and daily mobilization into post–hip fracture surgery workflows

HIP FRACTURE CARE QUALITY STATEMENT 8

Weight-Bearing as Tolerated

People with hip fracture are mobilized to weight-bearing as tolerated within 24 hours following surgery.

HIP FRACTURE CARE QUALITY STATEMENT 9

Daily Mobilization

After surgery, people with hip fracture are mobilized on a daily basis to increase their functional tolerance.

Implement policies that integrate *weight-bearing as tolerated* and daily mobilization into post–hip fracture surgery workflows

Implement policies or medical directives that integrate *weight-bearing as tolerated* and daily mobilization in a standard postoperative care pathway for patients with hip fracture.

STRATEGIES AND RESOURCES

- Embed these practices in hip fracture order sets and care pathways:
  - Designate all postsurgery hip fracture patients as *weight-bearing as tolerated with daily mobilization*; any exceptions should be reviewed by a local champion (see also Identify local champions)
  - Incorporate mobilization into nursing routines as standing orders, embedding “time out of bed” in nursing care plans
  - Designate all patients as “up to chair for meals”
  - Avoid tethers (e.g., foot pumps, IVs) that limit mobilization or remove them as soon as possible (urinary catheter within 1 day unless contraindicated)

    Medical directive example from Sunnybrook Health Sciences Centre: Nurse Initiated Catheter Removal Medical Directive
  - Promote a mobility-friendly patient environment: walker in reach, clutter-free spaces, nonslip footwear

HIP FRACTURE CARE QUALITY STATEMENT 9

Daily Mobilization

After surgery, people with hip fracture are mobilized on a daily basis to increase their functional tolerance.

HIP FRACTURE CARE QUALITY STATEMENT 13

Rehabilitation

People with hip fracture participate in an interprofessional rehabilitation program (in an inpatient setting, a community setting, or a combination of both) with the goal of returning to their prefracture functional status.

Increase patient access to and participation in physiotherapy and occupational therapy

Ensure that patients begin receiving rehabilitation within 24 hours of hip fracture surgery including on weekends on holidays to restore prefracture mobility, especially those at highest risk of rapid deconditioning. Optimize patients' ability to participate in physiotherapy and occupational therapy, and do not exclude those living with dementia from receiving rehabilitation.

STRATEGIES AND RESOURCES

Increase clinician knowledge and skills

- Read about rehabilitation recommendations and why cognitive impairment (dementia or delirium) should not preclude the patient from receiving rehabilitation:
  - Post Hip Fracture Orthogeriatric Care; see *Rehabilitation and Nutrition*
- Participate in training on nutritional requirements of patients with hip fracture:
  - Regional Geriatric Program of Toronto: Introduction to Nutrition – Clinical Learning Series

Ensure physiotherapy and occupational therapy access

- Redistribute physiotherapy and occupational therapy resources to provide coverage 7 days a week
- When necessary, prioritize weekend physiotherapy and occupational therapy for patients with hip fracture who are at higher risk of rapid deconditioning due to immobilization

Optimize patients' ability to participate in physiotherapy and occupational therapy

- Implement a nutrition care pathway to ensure patients ingest adequate calories and protein supplementation to support increased energy requirements for rehabilitation:
  - Fragility Fracture Network: SIMPLER Nutrition Pathway
- Align the timing of when the patient receives analgesics to therapy when appropriate:
  - Bone and Joint Canada: National Hip Fracture Toolkit; see *Postoperative Pain Management and Unmanaged Pain*
- Use a clinical tool to ensure patients start at the most appropriate level of rehabilitation:
  - Rehabilitation Care Alliance: Hip Fracture: Addendum to Rehabilitative Care; see *Figure 1.0: Referral Decision Tree for Rehabilitative Care*

HIP FRACTURE CARE QUALITY STATEMENT 14

Osteoporosis Management

While in hospital, people with hip fracture undergo a fracture risk assessment from a clinician with osteoporosis expertise and, when appropriate, are offered medications for osteoporosis.

Adopt and embed a 3i (identify, investigate, initiate) osteoporosis management model of care in hip fracture care pathways

Adopt a 3i model of care for osteoporosis (identify patients who have sustained a fragility hip fracture, investigate to rule out secondary causes, and initiate treatment prior to discharge if clinically appropriate) and embed the model of care in standard operating procedures to prevent secondary fracture, reduce mortality, and improve medication adherence rates.

RATIONALE AND SUPPORTING EVIDENCE

In a recent study,[7] standardized fracture liaison services (one example of a 3i model of care) were associated with a lower risk of subsequent fragility fractures and mortality.

- Read the paper Fracture Liaison Service (FLS) Is Associated With Lower Subsequent Fragility Fracture Risk and Mortality: NoFRACT (the Norwegian Capture the Fracture Initiative)

STRATEGIES AND RESOURCES

- 3i models of care best practices:
  - Models of Care for the Secondary Prevention of Osteoporotic Fractures: A Systematic Review and Meta-analysis
  - Orthogeriatrics: The Management of Older Patients with Fragility Fractures, second edition; see *Chapter 14: Fracture Risk Assessment and How to Implement a Fracture Liaison Service*
  - Osteoporosis Canada: Hip Fractures And Acute Clinical (Symptomatic) Spine Fractures algorithm and Fracture Liaison Services Toolkit
- Embed these strategies for osteoporosis assessment and management in order sets:
  - Include osteoporosis screening tests in preoperative bloodwork for patients with hip fracture
  - Identify a clinician with expertise in osteoporosis assessment and management (e.g., internist, geriatrician, hospitalist, nurse practitioner, pharmacist) with whom an automatic consult will be generated at hip fracture admission
  - Initiate osteoporosis pharmacotherapy as soon as patient is clinically stable unless contraindicated or not within the patient’s goals of care
  - Share the discharge plan for osteoporosis management with the patient’s primary care provider
  - See also Implement standardized order sets and automated referrals for when hip fracture is suspected

HIP FRACTURE CARE QUALITY STATEMENT 14

Osteoporosis Management

While in hospital, people with hip fracture undergo a fracture risk assessment from a clinician with osteoporosis expertise and, when appropriate, are offered medications for osteoporosis.

Modify existing workflows to improve osteoporosis therapy initiation in hospital

Embed practices and procedures in pre-existing or predetermined workflows to increase the likelihood of patients with hip fracture beginning and continuing osteoporosis therapy.

STRATEGIES AND RESOURCES

- Administer the first dose of osteoporosis medication before the patient is discharged unless contraindicated.
- Implement medical directives that expand prescribing authority for osteoporosis medications to interprofessional team members (e.g., nurse practitioners, pharmacists) in predetermined treatment pathways to build expertise and promote timely bone health assessment and treatment
  - Sunnybrook Health Sciences Centre medical directive example: Pharmacist-led Prescribing for Secondary Prevention of Osteoporotic Fractures
- Share a written transition plan with the patient’s primary care clinicians and bone health specialist. Include sufficient information on in-hospital bone health management to ensure adequate follow-up (e.g., primary care or specialist clinic follow-up, further tests such as bone mineral density)
  - London Health Sciences Centre example transition communications: Family Doctor Discharge OP Summary and LTC Osteoporosis Discharge Recommendations

References

1. National Institute for Health and Care Excellence. Hip fracture: management [Internet]. London: The Institute; 2011 [updated 2023 Jan 6; cited 2025 Dec]. Available from: https://www.nice.org.uk/guidance/cg124.
2. American Academy of Orthopaedic Surgeons. Management of hip fractures in older adults: evidence-based clinical practice guideline [Internet]. Rosemont (IL): The Academy 2021 [cited 2025 Dec]. Available from: https://www.aaos.org/globalassets/quality-and-practice-resources/hip-fractures-in-the-elderly/hipfxcpg.pdf
3. Health Quality Ontario, Ministry of Health and Long-Term Care. Quality-based procedures: clinical handbook for hip fracture [Internet]. Toronto (ON): Queen's Printer for Ontario; 2013 [cited 2025 Dec]. Available from: https://www.hqontario.ca/Portals/0/Documents/evidence/clinical-handbooks/hip-fracture-130717-en.pdf
4. National Institute for Health and Care Excellence. Delirium: prevention, diagnosis and management [Internet]. London: The Institute; 2010 [cited 2025 Dec]. Available from: https://www.nice.org.uk/guidance/cg103/resources/delirium-prevention-diagnosis-and-management-35109327290821
5. Gregson CL, Armstrong DJ, Bowden J, Cooper C, Edwards J, Gittoes NJL, et al. UK clinical guideline for the prevention and treatment of osteoporosis. Arch Osteoporos. 2022;17(1):58.
6. Van Heghe A, Mordant G, Dupont J, Dejaeger M, Laurent MR, Gielen E. Effects of orthogeriatric care models on outcomes of hip fracture patients: a systematic review and meta-analysis. *Calcif Tissue Int*. 2022;110(2):162-184.
7. Andreasen C, Dahl C, Frihagen F, et al. Fracture liaison service (FLS) is associated with lower subsequent fragility fracture risk and mortality: NoFRACT (the Norwegian capture the fracture initiative). *Osteoporos Int*. 2025;36(3):501-512.

Partial Bibliography (Resources):

Ganda K, Puech M, Chen JS, et al. Models of care for the secondary prevention of osteoporotic fractures: a systematic review and meta-analysis. *Osteoporos Int*. 2013;24(2):393-406.

Hammond M, Law V, de Launay KQ, et al. Using implementation science to promote the use of the fascia iliaca blocks in hip fracture care. Utilisation de la science de la mise en œuvre pour promouvoir l'utilisation de blocs ilio-fasciaux pour le traitement des fractures de la hanche. *Can J Anaesth*. 2024;71(6):741-750.

Henderson CY, Abdel-Galil R, Woo MY, et al. Improving care for elderly patients with hip fracture: interdisciplinary collaboration in regional analgesia. *Can J Anesth/J Can Anesth.* 2019;66:845–846.

Khan AA, AbuAlrob H, Al-Alwani H, et al. Post hip fracture orthogeriatric care-a Canadian position paper addressing challenges in care and strategies to meet quality indicators. *Osteoporos Int*. 2023;34(6):1011-1035

Ong T, Sahota O. Establishing an orthogeriatric service. In Falaschi P, Marsh D (eds). Orthogeriatrics. Practical Issues in Geriatrics. Springer, Cham; 2021.

Ritcey B, Pageau P, Woo MY, Perry JJ. Regional nerve blocks for hip and femoral neck fractures in the emergency department: a systematic review. *CJEM*. 2016;18(1):37-47.

Need this information in an accessible format? 1-877-280-8538, TTY 1-800-855-0511, info@ontariohealth.ca

Document disponible en français en contactant info@ontariohealth.ca

ISBN 978-1-4868-9545-8 (PDF)