

Recommendations for Adoption: Hip Fracture

Quality
Standards

Recommendations to enable widespread adoption of this quality standard

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About this Document

This document summarizes recommendations at local practice and system-wide levels to support the adoption of the quality standard for hip fracture.

At the local and regional levels, health care providers and organizations in all settings where applicable, local health integration networks (LHINs), and other health system partners across the province are encouraged to use the quality standard as a resource for quality improvement by assessing the care that is currently being provided against the evidence-based care outlined in the quality standard.

While many organizations and providers may be offering the care described in the quality standard, the statements, related measures, and adoption supports are designed to help organizations determine where there are opportunities to focus their improvement efforts. The [Getting Started Guide](#) outlines the process for using this quality standard as a resource to deliver high-quality care.

An important next step will be to action the recommendations included in this document. In some situations, this may require a more detailed plan, new resources, or to leverage or expand existing programs. At the same time, many aspects of the quality standard represent care that can and should be made available today.

A monitoring and evaluation strategy is included in the final section, with suggested measures to monitor and track progress. Health Quality Ontario's Quality Standards Committee will review these regularly, including the actions needed to support implementation.

The Hip Fracture Quality Standard

The hip fracture quality standard focuses on adults aged 50 years and older undergoing surgery for fragility hip fractures and the care delivered from the point at which they present to the emergency department until 3 months following surgery. Fragility hip fractures are fractures of the femur caused by low-energy trauma, such as falls from a standing height. This quality standard does not apply to people with hip fractures resulting from high-energy trauma, such as a car crash, or people with fragility fractures who are not candidates for surgery.

This quality standard is informed by Health Quality Ontario's 2013 [Quality-Based Procedures Clinical Handbook for Hip Fracture](#), in addition to other guidance sources. This quality standard does not attempt to provide guidance for all the topic areas addressed in the 2013 clinical handbook nor the funding. The quality statements in this standard focus on areas that have been prioritized for having the greatest opportunity for improvement in how hip fracture care in Ontario is currently provided.

Click [here](#) to access the quality standard.

The Recommendations for Adoption

The approach to developing these recommendations was guided by the principle of using the quality standards to promote practice improvement among health care professionals.^{i,ii,iii}

Click [here](#) to download the detailed process and methods guide for the development of quality standards and recommendations for adoption.

The recommendations for adoptions were developed after a review of the available evidence and a scan of existing programs, as well

as extensive consultation with the Hip Fracture Quality Standard Advisory Committee, key stakeholders, and organizations that work in this area; public comment on the quality standard; a series of structured interviews with clinicians; and a survey sent to clinicians across the province (further detail specific to the development of these specific recommendations are provided in [Appendix A](#)). These recommendations aim to bridge the gaps between current care and the care outlined in the quality statements.

THE RECOMMENDATIONS FOR ADOPTION CONTINUED

These conversations highlighted some common themes: improving access to rehabilitation and specialty care services, standardizing hip fracture clinical pathways, and making provincial hip fracture performance data available to support quality improvement.

Equity considerations: A number of equity issues have been identified related to this quality standard topic, including lack of adequate transportation in rural and remote areas to access care. These issues should be taken into consideration to ensure specific adoption strategies do not reinforce current states of inequity and inequality, but rather, where possible, contribute to improvements or highlight areas of opportunity for equality and equity.

The adoption recommendations are organized as follows:

- Integrating the quality standard into practice
 - Quality improvement
 - Access to care
- Education and training
- Policy and system planning

Three time frames for adoption are referenced: Immediate means within 1 year; medium-term refers to 1 to 3 years; and long-term is 3 or more years.

Note that the organizations, programs, and initiatives referenced in this document are examples for consideration, and do not reflect all the organizations, programs, and initiatives doing work in this area across the province.

[Appendix B](#) includes a list of these same recommendations aligned to specific organizations and groups.

ⁱ French SD, Green SE, O'Connor DA, et al. *Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework*. *Implementation Sci.* 2012;7:38.

ⁱⁱ Bero LA, Grilli R., Grimshaw JM, Harvey E, Oxman AD, Thomson M. (1998). *Closing the gap between research and practice: An overview of systematic reviews of interventions to promote the implementation of research findings*. *BMJ.* 1998;315:465-68.

ⁱⁱⁱ National Implementation Research Network. *Implementation Drivers* [Internet]. Chapel Hill, NC: FPG Child Development Institute, University of North Carolina [cited 2017 Feb 8]. Available from: <http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers>.

Integrating the Quality Standard into Practice - *Quality Improvement*

Gap: There is a lack of a standardized clinical pathway for patients with hip fractures.

Recommendation	Quality Statements	Action Needed By	Time Frame
Update the standardized clinical pathway set out in the hip fracture QBP using the hip fracture quality standard.	All	Health Quality Ontario	Immediate

Adoption Considerations:

- *The hip fracture QBP initiative can reinforce the standardization of care delivery in alignment with the quality standard.*
- *The Rehab Care Alliance has worked with provincial stakeholders to identify rehabilitative care best practices and care pathways across the continuum for patients following hip fracture to support implementation of the hip fracture QBP. This standardized pathway describes the processes, resources, and structures required to support the delivery of best practices and to enable optimal patient outcomes and patient flow.*
- *Existing programs and resources at Health Quality Ontario can be leveraged to further disseminate and support uptake of the standardized pathways, including Quorum, Quality Improvement Plans (QIPs), QBP Connect, Regional Clinical Quality Tables, and Provincial Rounds.*

Integrating the Quality Standard into Practice - *Quality Improvement*

Gap: There is a lack of practical tools to help providers and organizations integrate the quality standard into daily care practices. Use of common tools would help mitigate duplication of information.

Recommendations	Quality Statements	Action Needed By	Time Frame
Assess the care being provided against the quality standard using Health Quality Ontario's Getting Started Guide and refer to the Action Plan Template as a tool to support quality improvement.	All	Health care providers Health care organizations	Immediate
Leverage the use of hip fracture order sets, medical directives, and standing orders to augment the adoption of the care pathway.	All	Health care providers Health care organizations	Medium-term
Sub-regional clinical leadership should work with health care organizations to assess the care that is being provided against the quality standard, and use the quality statements, related indicators, and quality improvement science to make improvements to care.	All	LHINs	Medium-term

Integrating the Quality Standard into Practice - *Quality Improvement*

Gap: The absence of regular reporting and monitoring of the hip fracture quality standard is a barrier to adoption and adherence to the standard.

Recommendations	Quality Statements	Action Needed By	Time Frame
Disseminate baseline reports and ongoing facility-level data on hip fracture quality to hospitals through QBP Connect to support quality improvement.	1: Emergency Department Management 2: Surgery within 48 Hours 8: Weight-Bearing as Tolerated 9: Daily Mobilization	Health Quality Ontario	Immediate

Adoption Considerations:

- *The Rehab Care Alliance has identified priority indicators with benchmarks that support data reporting for this population.*
- *Health Quality Ontario is in the process of supporting a pilot project between CIHI and Bone and Joint Canada to develop data collection for a few hip fracture indicators using the Discharge Abstract Database.*
- *CIHI is adding a number of hip fracture indicators to their Insight tool, which is updated monthly and has capabilities to help organizations understand their results.*

Integrating the Quality Standard into Practice - Quality Improvement

Gap: There is a need to spread rigorous quality improvement efforts in the management of patients with hip fracture, expand success beyond pockets of excellence, and deliver high-quality care more consistently across the province.

There is also a need to enhance awareness among physicians on surgical interventions and pain management.

Knowledge gaps have been identified in the following areas:

- Delirium management
- Blood transfusion
- Osteoporosis management
- Patient, family, and caregiver information
- Follow-up care

Recommendation	Quality Statements	Action Needed By	Time Frame
Centralize existing resources that will support the quality standard and reduce knowledge gaps.	4: Surgery for Stable Intertrochanteric Fractures 5: Surgery for Subtrochanteric or Unstable Intertrochanteric Fractures 6: Surgery for Displaced Intracapsular Fractures 10: Screening For and Managing Delirium 11: Postoperative Management 12: Patient, Family, and Caregiver information 15: Follow-Up Care	Health Quality Ontario	Immediate

Adoption Considerations:

- Existing programs and resources at Health Quality Ontario can be leveraged to further disseminate and support uptake of the quality standard, including Quorum, Quality Improvement Plans (QIPs), QBP Connect, Regional Clinical Quality Tables, and Provincial Rounds.
- ORBCON offers resources to support an evidence-based approach to blood transfusion.
- The Senior Friendly Hospital Strategy has a suite of tools for delirium screening, prevention of functional decline, and fall prevention for elderly patients during their hospital stay.
- The Registered Nurses' Association of Ontario has existing guidelines on fall prevention for the acute care setting and long-term care homes.
- Osteoporosis Canada offers a suite of resources that support professional education for health care professionals and materials for patients and caregivers, including multimedia education programs and a 1-800 help line.
- Osteoporosis Canada Fracture Liaison Service has 28 fracture prevention coordinators located in 36 hospital-based fracture clinics across Ontario. This program plays a key role in bridging hospital and community care and provides services such as osteoporosis management, secondary fracture prevention, falls prevention, and follow-up care with family physicians in the community.

Integrating the Quality Standard into Practice - Access to Care

Gap: There is a lack of consistency in availability and type of rehabilitative services for patients with hip fractures in Ontario:

- Patients with underlying cognitive impairment or post-surgical delirium may not be offered admission to rehabilitation programs due to their limited capacity to participate, and are instead offered in-home rehabilitation.
- In-patient rehabilitation for long-term care residents who have sustained hip fracture is not always offered.

Recommendations	Quality Statements	Action Needed By	Time Frame
Conduct capacity planning in the home and community care sector to understand the extent to which patients with hip fracture can access high-quality rehabilitation services at home, including in their long-term care home.	13: Rehabilitation	LHINs	Medium-term
Align the post-surgical pathway from acute care to rehabilitation for residents of long-term care homes.	13: Rehabilitation	Hospitals Long-term care homes	Medium-term

Integrating the Quality Standard into Practice - Access to Care

Gap: Limited availability of beds and access to human resources affect timeliness of care.

Recommendations	Quality Statements	Action Needed By	Time Frame
Evaluate the current availability of emergency care and orthopaedic services in rural and remote areas.	<ul style="list-style-type: none"> 1: Emergency Department Management 2: Surgery within 48 Hours 3: Multimodal Analgesia 4: Surgery for Stable Intertrochanteric Fractures 5: Surgery for Subtrochanteric or Unstable Intertrochanteric Fractures 6: Surgery for Displaced Intracapsular Fractures 	LHINs	Medium-term
Develop repatriation protocols between nonsurgical and surgical centres in regions to support hospitals in building regional networks.	<ul style="list-style-type: none"> 1: Emergency Department Management 2: Surgery within 48 Hours 3: Multimodal Analgesia 4: Surgery for Stable Intertrochanteric Fractures 5: Surgery for Subtrochanteric or Unstable Intertrochanteric Fractures 6: Surgery for Displaced Intracapsular Fractures 	LHINs	Long-term
Work with the region and the province to map networks of emergency services, including development of hospital agreements and bypass/deployment protocols for emergency medical services.	<ul style="list-style-type: none"> 1: Emergency Department Management 2: Surgery within 48 Hours 3: Multimodal Analgesia 4: Surgery for Stable Intertrochanteric Fractures 5: Surgery for Subtrochanteric or Unstable Intertrochanteric Fractures 6: Surgery for Displaced Intracapsular Fractures 	Hospitals	Medium-term

Integrating the Quality Standard into Practice - Access to Care

Gaps: Access to specialty care services, such as geriatric expertise, may be limited in some health care organizations. This was identified as a particular challenge for hospitals in rural and remote areas.

Specialized skills and resources are needed to effectively manage patients with cognitive impairment and delirium.

Recommendations	Quality Statements	Action Needed By	Time Frame
In keeping with the senior-friendly care framework, ensure patients with hip fracture have access to geriatric expertise while under the care of an orthopaedic team.	10: Screening For and Managing Delirium 11: Postoperative Management	Health care providers Health care organizations	Medium-term
In updating the senior-friendly care framework, consider innovative models that will improve access to geriatric expertise for orthopaedic teams caring for hip fracture patients.	10: Screening For and Managing Delirium 11: Postoperative Management	Regional Geriatric Programs	Medium-term

Adoption Consideration: *The Regional Geriatric Programs (RGP) is developing a senior-friendly care framework to support capacity building for geriatric expertise and the development of an orthogeriatric care model in hospitals.*

Policy and System Planning

The recommendations for adoption include those needed at the system level. In accordance with Health Quality Ontario's mandate, set out in the *Excellent Care for All Act*, the board of directors has formally directed the following recommendations about the hip fracture quality standard to the Minister of Health and Long-Term Care.

Recommendations

Time Frame

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| 1. Align the hip fracture QBP indicators with the hip fracture quality standard. | Immediate |
| 2. Ensure hip fracture order sets developed through Ministry of Health and Long-Term Care funding are aligned to the quality standard. | Immediate |
| 3. Conduct an analysis of in-home rehabilitation programs to standardize the components and requirements of rehabilitation services delivered in home environments. | Medium-term |
| 4. Use bundled payment models to support transitions between acute care and rehabilitation, including the post-surgical pathway between long-term care homes and rehabilitation facilities, and to enhance discharge practices for both rehabilitation and acute care hospitals. | Immediate |
| 5. Work with the LHINs to improve access to low-intensity rehabilitation programs for patients who have developed complications following surgery. | Medium-term |

Measurement and Reporting

Health Quality Ontario will develop a monitoring and evaluation plan for these recommendations as part of the broader quality standards evaluation. This plan may require the development of measures and/or a resource plan to support data collection and monitoring. The evaluation will include the following components:

1. Monitor existing databases available through information briefs, Quality Improvement Plans (QIPs), and public reporting. Note identified gaps and areas for improvement. For this standard, the outcome indicators below are currently measurable and have been prioritized:
 - Percentage of patients who undergo surgery for hip fracture within the recommended 48 hours.
 - Percentage of patients who undergo surgery for hip fracture who die within 30 days or within 90 days of surgery.
 - Percentage of patients who undergo surgery for hip fracture who are readmitted to hospital within 30 days or within 90 days of surgery.

2. Monitor the uptake of the recommendations for adoption.

A plan to measure the impact of specific recommendations related to clinical care and improvement will be defined (the Re-Aim Framework that includes measurement of Reach, Effectiveness, Adoption, Implementation, and Maintenance provides a useful approach for larger scale improvement interventions that are proposed). This approach could leverage process measures that can be collected from embedded tools, such as order sets.

Health Quality Ontario will recommend that the Ontario Quality Standards Committee receive twice-annual updates on the progress of the recommendations and review any additional measurement that may be needed to assess impact.

Appendix A: Process and Methods for Developing the Recommendations for Adoption

The development of the recommendations for adoption involved extensive consultation with stakeholders across the province, from a variety of professional roles and perspectives.

The following organizations and groups were consulted in the development of these recommendations:

- Health Quality Ontario Quality Standard Advisory Committee (QSAC)
- Rehabilitative Care Alliance (RCA)
- Osteoporosis Canada (OC)
- Ministry of Health and Long-Term Care (MOHLTC)
- Provincial Emergency Services Advisory Committee
- LHIN/Health Quality Ontario Clinical Quality Leads

Note: Between January and March 2017, Health Quality Ontario conducted a survey with front-line providers across the 14 LHINs. This engagement was informed by the Theoretical Domains Framework, which uses 14 domains (knowledge, skills, attitudes, etc.) to identify barriers to behavioural change and/or the ability to put the quality standard into practice. A total of 84 survey responses were received from 21 orthopaedic surgeons, 32 nurses, six primary care physicians, 18 allied health professionals, two emergency department physicians, and five administrators, some of whom are members of the Provincial QBP Hip Fracture Task Group and the Frail Senior Task Group. The results of the survey were used to further inform the gaps in knowledge, behaviours, and attitudes related to this standard.

Appendix B: Summary Recommendations for Health Sector Organizations and Other Entities

Health Quality Ontario

Time Frame*

Update the standardized clinical pathway set out in the hip fracture QBP using the hip fracture quality standard.

Immediate

Disseminate baseline reports and ongoing facility-level data on hip fracture quality to hospitals through QBP Connect to support quality improvement.

Immediate

Centralize existing resources that will support the quality standard and reduce knowledge gaps.

Immediate

Local Health Integration Networks

Time Frame*

Sub-regional clinical leadership should work with health care organizations to assess the care that is being provided against the quality standard, and use the quality statements, related indicators, and quality improvement science to make improvements to care.

Medium-term

Conduct capacity planning in the home and community care sector to understand the extent to which patients with hip fracture can access high-quality rehabilitation services at home, including in their long-term care home.

Medium-term

Evaluate the current availability of emergency care and orthopaedic services in rural and remote areas.

Medium-term

Develop repatriation protocols between non-surgical and surgical centres in regions to support hospitals in building regional networks.

Long-term

APPENDIX B CONTINUED

Health Care Providers and Organizations	Time Frame*
Assess the care being provided against the quality standard using Health Quality Ontario's Getting Started Guide and refer to the Action Plan Template as a tool to support quality improvement.	Immediate
Leverage the use of hip fracture order sets, medical directives, and standing orders to augment the adoption of the care pathway.	Medium-term
Align the post-surgical pathway from acute care to rehabilitation for residents of long-term care homes.	Medium-term
In keeping with the senior-friendly care framework, ensure patients with hip fracture have access to geriatric expertise while under the care of an orthopaedic team.	Medium-term
Hospitals	Time Frame*
Work with the region and the province to map networks of emergency services, including the development of hospital agreements and bypass/deployment protocols for emergency medical services.	Medium-term
Regional Geriatric Programs	Time Frame*
In updating the senior-friendly care framework, consider innovative models that will improve access to geriatric expertise for orthopaedic teams caring for hip fracture patients.	Medium-term

**Three time frames for adoption are referenced: Immediate means within 1 year; medium-term refers to 1 to 3 years; and long-term is 3 or more years.*

For more information:

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