QUALITY STANDARDS

Using Quality Standards to Improve Care

Spotlight Report on London Health Sciences Centre

AUGUST 2024

Ontario Health

Putting Quality Standards Into Practice

This spotlight report presents an example of a hospital's success in implementing Ontario Health's quality standards to improve care.

This report highlights the successful implementation of the Hip Fracture: Care for People With Fragility Fractures quality standard at London Health Sciences Centre, specifically the Victoria Hospital site. Originally published in 2016 and updated in 2024, the quality standard has guided care across the province and nationally.

London Health Sciences Centre operates two adult care sites within its network that have similar orthopedic units and both treat fragility hip fractures: University Hospital and Victoria Hospital. Victoria Hospital took proactive steps to implement the quality standard for hip fracture care, while University Hospital maintained its usual practices. The contrasting approaches between the two sites resulted in differences in patient outcomes. Key outcomes at Victoria Hospital since its work in 2018 to implement the quality standard include:

- Mortality rate reduction from 10% to 4%, compared to the 2022/23 provincial average of 6%
- A 60% reduction in hospital bed days, with a current median stay of 9 days
- 98% of patients received surgery within 48 hours, surpassing the provincial average of 75%
- A reduction in post-operative delirium (Victoria hosptial's rate was 20.8% compared to the University Hospital's rate of 34.1%)
- Projected annual cost savings of over $1 million

These improvements demonstrate financial and health outcomes benefits of implementing a quality standard and position Victoria Hospital, London Health Science Centre as a model for other health care organizations.

The report is meant to function as an example of how organizations can implement any quality standard. Ontario Health Teams and the Ontario Health regions can also use this report to gain insight into how the organizations they support can be successful in their quality standard implementation efforts.

Step 1: Plan for Change

Get Leadership Buy-In

The work of implementing quality standards at London Health Sciences Center was driven by a collaboration between Dr. David Sanders (Orthopedic surgery), Dr. Emil Schemitsch (Orthopaedic surgery), and Dr. Jenny Thain (Geriatric Medicine). Their key responsibilities in implementing the quality standard included maintaining alignment between the team's goals and the organization's strategy, championing the project, removing barriers, resolving conflicts, and making timely decisions that continue to drive implementation progress.

Build an Interprofessional Implementation Team

To implement the hip fracture quality standard, Victoria Hospital created a team including orthopaedic surgeons, nurse practitioners, geriatricians, pharmacist, nurse educator, internal medicine physician, anesthesia, emergency physicians, researchers, and IT specialists. The quality standard implementation team worked together to clearly articulate each team member's role and maintain consistent engagement among team members and their executive sponsors.

Secure Funding

Victoria Hospital started planning for implementation by securing an Academic Medical Organization of Southwestern Ontario (AMOSO) Innovations Grant in 2018. This grant provided funding that allowed the team at Victoria Hospital to develop an interprofessional hip fracture unit and utilize national orthogeriatric fracture liaison services. The hip fracture unit created at Victoria Hospital is a physical cluster of beds reserved for people who have experienced a fragility hip fracture and is serviced by a dedicated team of clinicians with hip fracture expertise.

Compare Your Current Practice With What Is Described in the Quality Statements

Victoria Hospital evaluated their practices against the quality statements, identifying areas that needed improvement. They categorized their gaps by the level of effort required to meet the quality statements. For example, Victoria Hospital noted gaps in their documentation practices; as a result, simple enhancements in their electronic health records (EHR) system were made to ensure more detailed data capture and more effective delirium management.

An example of a slightly more complex intervention involved medication protocols for elderly patients which lacked uniform application. By upgrading EHR functionalities to prompt regular medication reviews, Victoria Hospital improved adherence to these protocols, ensuring better management with medication that are more beneficial for elderly patients.

Some quality statements called for significant changes in Victoria Hospital's care model, requiring resource reallocation, new technologies, and staff training. Initiatives such as extensive nurse training, geriatric consults, and the establishment of a delirium task force marked a significant shift towards a geriatric-focused care pathway, necessitating change management and new partnerships for effective implementation.

Step 2: Implement Change

Select Implementation Strategies

To select their implementation strategies, Victoria Hospital considered the key barriers and facilitators to making the changes they prioritized. They also consulted with peer support workers and people with lived experience in the development of their implementation plan to ensure a comprehensive approach. The interprofessional team brought together in 2018 focused on the following interventions:

A change to programs, policies, and procedures:

- Mandatory geriatric consultations for people 65 years and over to provide specialized care tailored to the needs of older people
- Training nursing staff and nurse practitioners in geriatric care, including the management and prevention of delirium, with support from leadership for dedicated training time
- Development of an osteoporosis treatment pathway to ensure patients receive osteoporosis treatment prior to discharge, if possible. Links are also made to the osteoporosis clinic for community bone health follow-up
- Implementation of a delirium management protocol, including regular screening using the Confusion Assessment Method (CAM) and the establishment of a delirium task force (DASH)

A change to practices:

- Ensuring patients' hearing and vision aids are available and functional during their hospital stay to enhance communication and care effectiveness
- Developing standardized care plans for pre- and post-operative hip fracture patients to ensure consistent and optimal care across the board
- Early involvement of anesthesiologists in the preoperative process to administer nerve blocks, enhancing pain management, and potentially reducing recovery time
- Integration of osteoporosis screening in preoperative blood work to facilitate immediate postoperative care and treatment planning

A change to medications:

- A critical evaluation of medications to minimize the risk of delirium and other side effects in older patients, moving away from generic prescriptions like gabapentin for post-op pain and as needed diazepines for sleep in favor of elder-friendly alternatives like melatonin or trazodone.

Demonstrating Success

The team at London Health Sciences Centre compared Victoria Hospital's implementation of the Hip Fracture quality standard care model with usual care at University Hospital. Their ongoing analysis of National Surgical Quality Improvement Program (NSQIP)* data has shown promising preliminary results from September 2018 to January 2023.

Overarching outcomes:

- Mortality rates: Victoria Hospital achieved a 60% reduction in 30-day mortality rates, from 10% to 4%.
- Length of stay: Victoria Hospital's average stay is 9.9 days, with 7.2% of patients staying over 30 days, compared to University Hospital's 11.6 days and 16.4%.
- Return home: At 30 days post-operation, 7% of Victoria Hospital patients remained hospitalized versus 18% at University Hospital.

Statement specific outcomes:

- Operating room within 48 hours: Victoria Hospital has maintained rates above 90%, with nearly 95% since 2022, compared to University Hospital's 80-85%.
- Delirium rates: Victoria Hospital reports 20.8% compared to University Hospital's 34.1%.
- Postoperative care: Victoria Hospital has lower rates of pressure injuries (0-2%) versus University Hospital (2-11%).

Victoria Hospital has presented this data to their hospital network and externally to provincial and national organizations, Ontario Health regions, and Ontario Health Teams.

Elevate Surgical Care in Ontario

*National Surgical Quality Improvement Program (NSQIP) is a comprehensive, data-driven program aimed at improving surgical care quality. By collecting and analyzing clinical data, NSQIP helps hospitals identify areas for improvement, develop best practices, and enhance patient outcomes. Ontario hospitals can enroll in NSQIP for training and support in data collection and quality improvement.

The Ontario Surgical Quality Improvement Network (ONSQIN) builds on NSQIP's data and benchmarks to further enhance surgical quality within the province. ONSQIN promotes collaboration among hospitals to share best practices and strategies for improving surgical care. Hospitals in Ontario can join ONSQIN to benefit from the collaborative network and additional resources.

Step 3: Sustain Change

Monitor Performance

The quality-based procedures team and the NSQIP team at Victoria Hospital produce quarterly reports related to this work that are reviewed by the implementation team. Outcomes of these reports are also monitored by the Surgical Quality Council.

Embed the Change Into Existing Processes

Quality improvements and practice changes are at risk of being lost through staff turnover and shifting implementation priorities. Since 2018, LHSC has minimized this risk by including quality standard implementation in their annual action plans and in staff orientation upon hire. This ensures that quality standard implementation efforts are embedded in the organization's strategic direction and in existing processes, thus prioritizing this work for the entire organization.

Celebrate Success

The data provided by the quality-based procedures team and NSQIP quarterly reports allow LHSC to compare their results between Victoria Hospital and University Hospital sites. Victoria Hospital actively celebrates their achievements through internal communications aimed at acknowledging the effectiveness of their implementation approach and furthering knowledge dissemination and transfer.

Step 4: Spread Change

Spreading the changes you have made involves moving beyond your unit or department to the entire organization or beyond your organization to other organizations to share tools, resources, approaches, successes, and lessons learned. London Health Science Centre has made efforts to spread the successful model across other regions and hospitals, with emphasis on collaboration, IT support, and strategic planning for wider implementation and sustainability.

The implementation team at Victoria Hospital are in the process of spreading their innovative orthogeriatric care and implementation strategy successes to University Hospital as well as 6 peripheral sites across South-West Ontario in a hub-and-spoke model. The team is also starting an Orthogeriatric ECHO program to spread knowledge and provide telemonitoring to any sites that may be interested.

Conclusion

The team at London Health Sciences Centre, at the Victoria Hospital significantly improved outcomes for older people with fragility hip fracture patients by using the quality standard to guide their efforts. Since 2018, they've implemented standardized pre- and post-op care plans, medication reviews, optimized sensory aids, mandatory geriatric consultations, and osteoporosis screening and treatment. These changes, along with targeted education and delirium management strategies, have resulted in a reduction in mortality rates and post-operative delirium, with projected annual savings in bed days and costs of over $1 million.

Getting Started

To view all of Ontario Health's quality standards, please visit our quality standard library.

All quality standards are accompanied by a suite of resources, including:

- A **patient guide** to help patients and caregivers know what to ask for in their care
- A **quality standard placemat**, which is a quick-reference resource for clinicians summarizing the quality standard with links to helpful resources and tools
- A **case-for-improvement slide deck** explaining why the quality standard was created and the data behind it
- **Technical specifications** containing the quality standard indicators
- A **measurement guide** to support data collection and measurement

Ontario Health's Getting Started Guide is a good place to start for organizations interested in using quality standards to improve care. It addresses planning for, implementing, and sustaining change and provides samples of quality improvement plans and an action plan template.

For any questions or for support with quality standard implementation, please contact QualityStandards@OntarioHealth.ca. Please also let us know if you've had success implementing a quality standard. We'd love to hear from you!

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

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