

Quality Improvement Road Map to  
**PREVENTING FALLS**



# Residents First: On the Road to Quality Improvement

---

Residents First is a provincial initiative that promotes quality improvement for and by the long-term care (LTC) sector. The initiative is supported by the Government of Ontario and is being implemented in partnership with Ontario's Local Health Integration Networks (LHINs) over a period of five years.

Residents First begins and ends with residents. The vision for this initiative is that each resident enjoy safe, effective and responsive care that helps them achieve the highest potential of quality of life. Residents First supports enhancing a workplace culture where staff – from leadership to the front lines – are jointly engaged in a continuous journey toward quality improvement. The initiative is focused on achieving tangible and measurable improvements in LTC homes, based on internationally recognized indicators of quality. Residents First will provide people working in long-term care with knowledge, training and tools to support them in making quality improvements aimed at enhancing safety and promoting changes that make a positive difference in the well being of residents.

Residents First is being launched in 2010 in four regions of the province: Central East, Hamilton Niagara Haldimand Brant, Mississauga Halton and the North West. The goal is to recruit 100 homes for participation in the first year, and then to reach all homes within five years.

Residents First partners include:

- Concerned Friends of Ontario Citizens in Care Facilities
- Institute for Safe Medication Practices Canada
- Local Health Integration Networks
- Ontario Association of Non-Profit Homes and Services for Seniors
- Ontario Association of Residents' Councils
- Ontario Family Councils' Program
- Ontario Health Quality Council
- Ontario Long-Term Care Association
- Ontario Long-Term Care Physicians
- Quality Healthcare Network
- Registered Nurses' Association of Ontario
- Seniors Health Research Transfer Network



# Table of Contents

---

- 1. The Starting Point – Facing the Challenge of Falls ..... 6
- 2. The Benefits to Your Residents ..... 6
- 3. The Journey to Preventing Falls ..... 7
  - 3.1 Assembling Your Team ..... 7
  - 3.2 Setting a Course for a Specific Destination ..... 8
  - 3.3 Charting Your Progress ..... 8
- 4. Different Paths to Improvement ..... 10
- 5. Navigation Support ..... 18
- 6. Conclusion ..... 18
- Appendix: Paths to Improvement at a Glance ..... 20

# 1. The Starting Point – Facing the Challenge of Falls

---

Welcome and congratulations! By picking up this road map to preventing falls, you are taking the first step towards improving resident outcomes. This road map aims to support teams participating in the Residents First collaboratives and other quality improvement (QI) projects focused on preventing falls.

Falls among seniors exact a high cost to individuals and the province's health care system. For an individual, it can mean the beginning of a loss of independence and a serious deterioration in their quality of life.

Injuries from falls among people 65 years and older in long-term care (LTC) homes are more frequent than those living in the community. For every 100 LTC home residents, there are about nine falls each year which are serious enough to require an emergency room visit.

But there is a growing body of research pointing the way to effective preventive measures that can help make seniors less prone to falls and able to lead a high quality of life for as long as possible.

**The good news is that falls can be prevented! But how do you get there from here? Here's your road map.**

## 2. The Benefits to Your Residents

---

This road map will guide you step-by-step to your destination of making quality improvements in preventing falls. As in any journey, you must be prepared for stops or possible detours along the way. You will need to refer back to the map throughout the journey to help maintain your focus and keep you on track. It will offer signposts along the way in this worthwhile journey to reducing falls and improving the quality of life for LTC home residents.

By following this road map, you can achieve a number of benefits for your residents. Here are some examples:

- A decrease in the number of falls, the severity of harm from falls and the number of falls that result in an emergency department visit
- Improved work practices by ensuring early identification of residents at high risk for falls, post-fall assessments, and changes in medical status
- Improved interdisciplinary team approaches to care – improve staff awareness through evidence-based practices
- An improved resident-centered care approach (care plan interventions for preventing falls are consistent with the resident's goals, values, needs, wishes, preferences, and lived experiences)

# 3. The Journey to Preventing Falls

## 3.1 Assembling Your Team

Quality improvement is a team effort. So, start by assembling an LTC falls improvement team in your home. You will want to include people who can bring energy and commitment to your team.

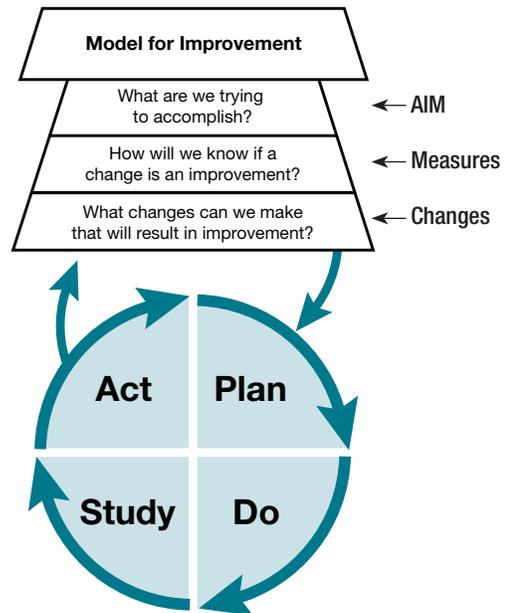
You may already have teams in place, however you may want to consider assembling a team that includes members from nursing and allied health along with a PSW and a manager. If appropriate, include a resident or family member.

It is recommended that you include someone with training in quality improvement facilitation, so they can support you on your journey.

### Navigation Checklist

Consider these questions as you are starting out and remember to reflect on them throughout your journey.

1. What are you trying to accomplish?
2. How will you know a change is an improvement?
3. What changes can you make that could lead to an improvement?



## Your team is your vehicle.

Your team will plan and implement the improvement to fit the context of your home by:

- gathering baseline measures;
- conducting small-scale tests of change using PDSA, “Think BIG, test SMALL;”
- studying outcomes of changes before planning next action steps; and
- helping successful changes become standard practices and lessons learned.

Quality improvement flourishes when there is support from the leadership to:

- guide, support and encourage the improvement team; and
- ensure the sustainability of the team’s effective changes.

### 3.2 Setting a Course for a Specific Destination

It is important for you to be very clear on the aim you are trying to achieve in regards to reducing falls in your LTC home. First, consider your current circumstances. Then, consider how you would like to improve them. Commit to achieving the improvement within a set timeframe. Set a target that will stretch your capability and make sure you keep in mind a level of improvement that will add value to residents.

## Your aim is your ultimate destination.

**Be sure to pinpoint your destination and establish a schedule for getting there.**

Example: The AIM of the \_\_\_\_\_ (your LTC home) falls improvement team is to reduce by 50%, from \_\_\_\_ to \_\_\_\_, the number of falls leading to any injury, experienced by any resident, by \_\_\_\_ (date).

### 3.3 Charting Your Progress

Improvements need to be measured. You need to be able to effectively track the changes that are occurring in your home and assess their impact on quality improvement.

Your measures are your signposts. There are a number of different areas that are measured in order to adequately assess the effectiveness of your efforts in preventing and reducing falls. Measure actual outcomes as well as the processes and mitigating steps that are in place to reduce falls. These additional measures will act as indicators to help flag when you are going off the path.

The chart that follows describes the most relevant outcome, pressure and balancing measures.

## Outcome Measures

1. Percentage of residents who had a fall in the previous month
2. Number of falls that required an emergency department visit in the previous month
3. Number of harmful falls that took place in the previous month that were categorized as 2, 3, 4, 5, or 6 on the severity of harm scale

## Process Measures

1. Percentage of residents who were admitted in the previous month for whom a falls risk assessment was completed on admission
2. Percentage of residents for whom a falls risk assessment was completed following a fall in the previous month
3. Percentage of residents assessed to be medium-high risk as per the Morse Fall Scale, who had a falls intervention implemented and documented in their care plan

## Balancing Measures

1. Percentage of residents with physical restraints documented on the restraint record on the same day as the audit

## 4. Different Paths to Improvement

Quality Improvement involves change on many levels. There is no one-size-fits-all solution to reaching your destination. Each home is unique. It is important for your team to discuss, explore and determine changes that can be made in your home to support preventing and reducing falls. Consider your entire organization and approach to caring for residents to look for changes that can be made to support falls reductions.

The following table sets out possible areas of focus and steps that you may want to take on your journey towards quality improvement.

Recognition and Assessment	Suggested Steps
<p><i>Identify falls prevention and care as an area for potential improvement in performance and practice.</i></p>	<ul style="list-style-type: none"> <li>• Determine baseline measures related to falls</li> <li>• Determine areas for improvement/change ideas in current processes and practices related to fall prevention</li> </ul>
<p><i>All residents will need a falls risk assessment at certain intervals.</i></p>	<ul style="list-style-type: none"> <li>• Examine the current process for assessment and screening of all residents</li> <li>• Evaluate the at-risk resident</li> <li>• Assess all residents on admission, change in status:               <ul style="list-style-type: none"> <li>– Morse Fall Scale</li> <li>– RAI-MDS</li> <li>– Include family members' observations where necessary</li> </ul> </li> <li>• Screen for physical and functional status:               <ul style="list-style-type: none"> <li>– Berg Balance Scale</li> <li>– Tinetti Gait and Balance Instrument</li> <li>– Timed Up and Go</li> </ul> </li> <li>• Screen for visual acuity:               <ul style="list-style-type: none"> <li>– Ensure client has easy access to glasses of the correct prescription as required</li> </ul> </li> <li>• Screen for cognitive impairment:               <ul style="list-style-type: none"> <li>– Mini-mental status exam</li> <li>– Confusion assessment method instrument (CAM)</li> </ul> </li> </ul>

## Recognition and Assessment *(cont.)*

## Suggested Steps

- Screen for osteoporosis :
  - Screen osteoporosis age,
  - Low bone mineral density,
  - Height loss,
  - History of falls,
  - Family fracture history
- **Medication Review**
  - Consult with the physician and pharmacist
  - Evaluate all residents who are taking more than five medications or benzodiazepines, tricyclic antidepressants, selective serotonin-reuptake inhibitors, or trazodone on the resident's response to medications that could impact on their risk of falls
- Collect the best possible medication history on admission
- Include on the resident's medication history an identification of falls risk related to medication factors
- Conduct regular medication reviews, in consultation with the physician and pharmacist
- Reassess response to medication when new medications are prescribed

## Engaging Residents and Families

## Suggested Steps

*Share risk information with residents and families and engage them in prevention strategies.*

- Implement interventions that are consistent with the resident's goals, values, needs, wishes, preferences and risk factors
- Evaluate resident and family satisfaction using regular satisfaction surveys
- Educate all residents and families who have been assessed to be at risk regarding their risk status
- Consider resident educational materials that are available for distribution to residents and families
- Include findings regarding causes of past falls in educational materials for residents and families

## Engaging Residents and Families *(cont.)*

## Suggested Steps

- Include information regarding risks, minimal restraints, and proper footwear
- Engage the family in supporting resident activity

## Care Planning for Prevention

## Suggested Steps

*An individualized plan of care for falls prevention created with the resident, family and staff is based on best practice evidence, and assessed risk while considering first the residents' values, beliefs, and preferences.*

- Communicate the risk of falls with the resident, their family and staff (verbal, health record, care plan, shift change, risk rounds, care conferences, programming staff, etc.)
- Document the falls risk assessment results in the resident's health record and care plan
- Include the falls risk status at transfer of care (shift change, resident rounds, and prior to outings with family)

*A well developed communication plan supports care planning for prevention strategies.*

- Develop a handover form or report which includes a falls risk assessment
- Include falls risk as a topic for discussion at all admission care conferences and annual care conferences
- Create an individualized plan of care with the resident, their family and staff and communicate (verbal, health record, care plan, shift change, risk rounds, care conferences, programming staff, etc.)
- Implement interventions that are consistent with the resident's goals, values, needs, wishes, preferences and risk factors
- Implement a strength/balance program to improve/maintain/delay decline of physical fitness/strength
- Consider prevention strategies:
  - Hip protectors for those who have osteoporosis, arthritis of hip, have fallen or are at risk of falling, previously broken hip, unsteady walking and independently transferring, and/or dementia
  - Hi-lo beds
  - Mats on floor

## Care Planning for Prevention *(cont.)*

## Suggested Steps

- Create systems to ensure hip protectors are worn and maintained appropriately
- Provide treatment choice for the prevention of osteoporosis to reduce the risk of fracture
- Provide residents with information on the benefits of Vitamin D supplementation in relation to reducing falls risk
- Provide residents with information on dietary options and lifestyle interventions
- Ensure adequate daily intake of calcium and provide supplements as necessary
- Manage medications:
  - Poly-pharmacy and psychotropic medications
- Consider environmental modifications:
  - Furniture arrangement, lighting, clear exits, etc.
- Implement interventions that are consistent with the resident's goals, values, needs, wishes, preferences and risk factors

## Improving Work Flow

## Suggested Steps

*Education in the following areas will enhance the development of routine practices related to fall prevention.*

- Conduct educational sessions during staff orientation at regular intervals on:
  - The prevention of falls and fall injuries
  - Safe mobility, risk assessment, risk management, post fall follow up, alternatives to restraints, etc.
  - Promoting safe mobility risk assessment, risk management, including post fall follow up alternatives to restraints, sensory impairment, continence education, etc.
- Include falls injury prevention strategies (i.e., lifting a resident after a fall or safe transfer)
- Identifying resources for falls prevention and regulatory requirements

*Organizational support for falls intervention strategies will support developing routine practices for fall prevention.*

- Refer to your provincial legislation on restraint use
- Regularly review (annually) policy to include pharmacy in all resident reviews.
- Collaborate with the pharmacist and geriatrician to assess pharmaceutical use
- Develop processes to identify environmental factors that have resulted in falls in the past review
- Regularly inspect mobility assistive devices
- Control stimulation especially for the cognitively impaired (i.e., reduce group sizes, control noise levels, etc.)
- Consider rail alternatives, including lower beds, bed position, etc.
- Regularly review (annually) the existing restraints policy in your LTC home to ensure it reflects current provincial legislation
- Regularly review (annually) falls prevention policy (include post fall assessment, role and responsibilities on each healthcare provider)
- Regularly review (annually) policy for at least restraints approach that includes assessment, alternatives and components and chemical restraints
- Avoid the use of full side rails for the prevention of falls or recurrence of falls
- Use positioning cushions as boundary markers for bed edge
- Provide mats/mattresses on floor
- Lower bed, position bed against the wall to provide one-sided barrier
- Consider environmental rounds (supervised toileting or toileting assistance)
- Create an environment that supports interventions for falls prevention

## Improving Work Flow *(cont.)*

## Suggested Steps

*Consider environmental factors for falls prevention.*

- Involve multidisciplinary teams from all departments
- Develop a checklist to complete during regular environmental safety rounds focussing on falls prevention
- Provide access to supplies and equipment for preventing falls and/or signalling high-risk situations to the multidisciplinary team
- Transfer devices, high/low beds, bed exit alarms
- Provide education on the use of equipment and supplies and use of monitoring cameras

## Developing Routine Practices

## Suggested Steps

*Post falls assessment will facilitate in identifying contributing factors to prevent reoccurrence.*

- Investigate each fall or near fall to identify contributing factors and to prevent reoccurrence
- Identify residents who have fallen as high risk and implement appropriate interventions
- Develop post-fall documentation report including root cause analysis
- Test falls “huddles” with the interdisciplinary team post fall to identify any required changes to the care plan
- Review your process to ensure a falls risk assessment is completed for every resident who experiences a fall
- Monitor residents on anticoagulants post fall for possible hematoma
- Include medication assessment post fall
- Implement processes to effectively manage poly-pharmacy and psychotropic medications
- Conduct regular medication reviews (e.g., quarterly) and explore alternatives to psychotropic medications which could cause sedation, orthostasis, etc.)
- Consider dosing schedules for medications (e.g., timing of laxatives, diuretics and sedation medications)

## Developing Routine Practices *(cont.)*

## Suggested Steps

- Develop processes to decrease or eliminate the use of psychotropic medication when possible
- Implement strengths, balance and coordination training to increase the resident's physical fitness/strength

## Designing Systems to Avoid Mistakes

## Suggested Steps

*A workplace culture where residents, families and staff can communicate suggestions and concerns that are considered in organizational planning will support system design.*

- Establish multidisciplinary falls prevention team
- Use a PDSA approach to evaluate all tests of change
- Collect, report and analyze data for learning
- Evaluate care processes, environment safety, equipment through audit process
- Develop approaches for regular resident safety checks
- Implement special coloured wrist bands, bed/room signs (i.e., falling leaf/falling star logo) and/or other visible identifiers on mobility aids
- Provide access to supplies and equipment for preventing falls and/or signalling high-risk situations to the multidisciplinary team
- Provide adequate support to LTC falls improvement team to facilitate activities
- Establish a forum to review feedback, learning about changes and improvements to falls in your LTC home (staff meeting, councils, huddles, newsletters, email notices, etc.)

*Clear identification of risk, response to falls incidence and prevention strategies are key elements that need to be well developed in the system design.*

Respond to a fall immediately:

- Assist the resident to a safe position when a fall is witnessed
- Use systems to alert healthcare providers to the potential for a falls incidence
- Include environmental modifications as a component of falls prevention strategies
- Include physical assessment

- Assess the resident's capacity for safe transfer
- Teach staff strategies to support the resident to a safe, comfortable position
- If the resident is cognitively intact teach the resident safe transfer from surface
- Consider the use of bed alarms or monitor for high-risk residents who do not or are not able to ask for assistance
- Conduct a routine assessment of barriers within the environment, and ensure clear access to bathrooms, exits, etc.
- Consider furniture arrangement, lighting, environmental rounding

## 5. Navigation Support

---

Here are some resources that may be of assistance to you on your quality improvement journey.

RNAO LTC Best Practice Falls Toolkit <http://ltctoolkit.rnao.ca/resources/falls>

RNAO Best Practice Guidelines for Fall Prevention  
<http://www.rnao.org/Page.asp?PageID=924&ContentID=810>

RNAO Best Practice Guideline for Client Centred Care  
[http://www.rnao.org/Storage/15/932\\_BPG\\_CCCare\\_Rev06.pdf](http://www.rnao.org/Storage/15/932_BPG_CCCare_Rev06.pdf)  
[http://www.rnao.org/Storage/15/933\\_BPG\\_CCCare\\_Supplement.pdf](http://www.rnao.org/Storage/15/933_BPG_CCCare_Supplement.pdf)

Morse Fall Scale

Tinetti Balance Scale <http://geriatrics.uthscsa.edu/tools/TINETTI.pdf>

Berg Balance Test <http://www.fallpreventiontaskforce.org/pdf/BergBalanceScale.pdf>

REGIONAL GERIATRIC PROGRAM CENTRAL <http://www.rgpc.ca/best/subjects/falls.cfm>

ONTARIO OSTEOPOROSIS STRATEGY FOR LONG TERM CARE  
<http://www.ostestrategy.on.ca/>

SAFER HEALTHCARE NOW GETTING STARTED KIT: FALLS PREVENTION IN LONG-TERM CARE, ACUTE CARE AND HOME HEALTH CARE: Reducing the Incidence and Severity of Falls How-to-Guide.

## 6. Conclusion

---

Congratulations! Now that you have taken this journey and reached your destination, you are ready to celebrate. Quality improvement is a continuous journey, and there is another destination waiting for you. You may choose to:

- reset your aim using the same topic and resident group;
- spread your success on this topic to a new resident group; and/or
- choose a new topic area of focus.

This is also a good opportunity to remind your team that you now have quality improvement tools and skills that you can direct to any improvement efforts in your home.

## Residents First Curriculum Working Group Members

**Harjeet Bajaj**, QI Consultant, OHQC

**Carolanne Bell**, Care Coordinator, Specialty  
Care Case Manor

**Renate Cowan**, Administrator, Lee Manor

**Maryanne D'Arpino**, Improvement Facilitator  
Lead, OHQC

**Gina De Souza**, Improvement Facilitator  
Lead, OHQC

**Debbie Emerson**, Director of Resident  
Services, Kensington Gardens

**Nadia Greco**, Director of Care, Villa Colombo,  
Vaughan

**Sharon King**, Pharmacist Consultant, ISMP

**Deirdre Luesby**, Executive Director, SHRTN

**Cynthia Majewski**, Executive Director, QHN

**Heather McConnell**, Associate Director of  
IABPG, RAO

**Eileen Patterson**, Director of Quality  
Improvement, OHQC

### Ad Hoc Members

**Dr. Katherine Berg**, University of Toronto  
Department of Physical Therapy

**Clara Fitzgerald**, Canadian Centre for  
Activity and Ageing, University of Western  
Ontario

**Hélène Gagné**, Ontario Neurotrauma  
Foundation

## Appendix: Paths to Improvement at a Glance

This table offers guidance on areas where change should be discussed and considered, and possible steps to engage in order to bring these quality improvement changes to life.

Recognition and Assessment	Engage Residents/Family	Care Planning for Prevention	Improve Work Flow	Develop routine practices/Standardize	Design Systems to avoid mistakes
<p>Assess all residents on admission; change of status and at required intervals (quarterly/annual)</p> <p>Evaluate the “at risk” resident for Falls</p> <ul style="list-style-type: none"> <li>• Morse Fall Scale</li> <li>• RAIMDS</li> </ul> <p>Screen: Physical and Functional Status</p> <ul style="list-style-type: none"> <li>• Berg Balance Scale</li> <li>• Tinetti Gait and Balance Instrument</li> <li>• Timed Up and Go</li> </ul> <p>Screen: Osteoporosis Age, Low Bone Mineral Density, Height Loss, History of Falls, Family Fracture History</p> <ul style="list-style-type: none"> <li>• Reference: Ontario Osteoporosis Strategy for Long Term Care</li> </ul> <p>Screen: Cognitive Impairment</p> <ul style="list-style-type: none"> <li>• Mini-Mental Status Exam</li> <li>• Confusion Assessment Method Instrument (CAM)</li> </ul> <p>Screen: Visual Acuity</p> <ul style="list-style-type: none"> <li>• Ensure Client has easy access to glasses of the correct prescription as required</li> </ul>	<p>Clearly identify:</p> <ul style="list-style-type: none"> <li>• All residents assessed to be at risk for falling (Using discrete identifiers), Health Record</li> </ul> <p>Share risk information with residents and families and engage them in prevention strategies</p>	<p>Communicate:</p> <ul style="list-style-type: none"> <li>• Falls risk with resident, family and staff (verbal, health record, care plan, shift change, risk rounds, care conferences, programming staff, etc.)</li> </ul> <p>Care Planning:</p> <ul style="list-style-type: none"> <li>• Create individualized plan of care with resident, family and staff and communicate (verbal, health record, care plan, shift change, risk rounds, care conferences, programming staff, etc.)</li> </ul> <p>Prevention Strategies: those who have osteoporosis, arthritis of hip, fallen or at risk for falling, previously broken hip, unsteady walking and independently transferring, and/or dementia</p> <ul style="list-style-type: none"> <li>• Hi Lo Beds</li> <li>• Mats on Floor</li> </ul> <p>Prevention Strategies:</p> <ul style="list-style-type: none"> <li>• Implement strength, balance, and coordination to improve/maintain/delay decline of physical fitness/strength</li> <li>• Strength/Balance Program</li> </ul> <p>Consistently implement interventions that are consistent with the resident's goals, values, needs, wishes, preferences and risk factors</p>	<p>Educate Staff:</p> <ul style="list-style-type: none"> <li>• Orientation, Annually, Regular Intervals</li> <li>• Prevention of Falls and Fall injuries</li> <li>• Safe mobility, risk assessment, risk management, post fall follow up, alternatives to restraints etc.</li> <li>• Develop Organizational policy and procedure for falls prevention</li> <li>• Review Organizational policy for Least Restraint</li> <li>• Create an environment that supports interventions for fall prevention</li> <li>• Provide access to supplies and equipment for preventing falls and/or signaling highrisk situations to the multidisciplinary team</li> </ul> <p>Environmental Modifications:</p> <ul style="list-style-type: none"> <li>• Furniture arrangement, lighting, clear exits etc.</li> </ul>	<p>Consider additional risk factors:</p> <ul style="list-style-type: none"> <li>• Environmental (Floor wax, clutter, lighting, call bell accessibility, electrical cords etc.)</li> <li>• Resident Footwear</li> </ul> <p>Medication Review</p> <ul style="list-style-type: none"> <li>• Consult with Physician and Pharmacist</li> <li>• Benzodiazepines, tricyclic antidepressants, selective serotoninreuptake inhibitors, trazodone</li> </ul> <p>Manage medications: Poly-pharmacy and psychotropic medications</p> <p>Review Risk:</p> <ul style="list-style-type: none"> <li>• Identify cause of any previous fall incidents</li> <li>• Consider care process related problems that may contribute to falls</li> </ul>	<p>Monitor:</p> <ul style="list-style-type: none"> <li>• Environmental Safety Rounds</li> <li>• Inspection of Mobility Aids</li> <li>• Stimulation (noise, group size)</li> <li>• Chair alarms</li> <li>• Alternatives to Restraints</li> <li>• Ensure completion of risk assessments, care processes, fall follow up and care planning</li> <li>• Falls huddles</li> </ul> <p>Provide adequate support to Falls Improvement Team to facilitate above activities</p>







[www.hqontario.ca](http://www.hqontario.ca)

130 Bloor Street West, 10th Floor  
Toronto, ON M5S 1N5

Tel: 416-232-6868 1-866-623-6868

Fax: 416-323-9261



Ontario

Health Quality Ontario