

Reducing Falls and Injuries... And Making Life Safer for Residents

According to research completed by the Ontario Injury Prevention Resource Centre in 2007, at least one senior visits an emergency department every 10 minutes due to a fall. Falls often result in serious injuries such as hip fractures and head trauma, especially when they occur in elderly, frail seniors. The annual cost of falls to Canadians is estimated at \$2.8 billion. Accreditation Canada has recently added 'fall prevention' as one of the new required organizational practices (ROP) for accreditation by the Canadian Council on Health Services.

Recognizing the enormous challenge of preventing falls among its residents, Cedarvale Terrace Long Term Care Home in Toronto has joined the National Collaborative on Falls in Long Term Care Homes. Initiated by the College of Nurses of Ontario (CNO), the Quebec Campaign and Safer Healthcare Now! the collaborative involves 33 teams from across Canada. Cedarvale Terrace came on board in May 2008, setting a goal of a 25 per cent reduction in falls among residents to decrease the number of injuries occurring in the home.

Who is involved?

The team involved in the Cedarvale Terrace initiative embraces various disciplines, including medicine, nursing, physiotherapy, rehabilitation, programming, staff education, quality coordination, management, front-line nursing (personal support workers, health care aides) and housekeeping—all focused on the safety of the residents in their care. Using the latest quality improvement model—'plan do study act'—the team was able to test several fall prevention interventions. The Registered Nurses' Association of Ontario's best practice guideline 'Prevention of Falls and Fall Injuries in the Older Adult'² served as a guideline for all improvement initiatives.

by Janusz Kaleta

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TABLE 1

Plan

A review of the research literature and evidence regarding the use of vitamin D and calcium among geriatric residents and their effectiveness in the prevention of falls points to the following:

- Vitamin D is an emerging therapy in fall prevention. It improves muscle strength and function.
- The combined use of vitamin D and calcium has been shown to improve body sway and to reduce risk of hip and nonvertebral fracture.
- Studies of vitamin D and calcium supplementation show a significant reduction in fracture rates in both institutionalized and free-living elderly people.

Do

Introduce the cycle to team physicians for review and feedback. Suggest vitamin D and calcium supplementation for newly admitted residents who are deemed appropriate by the physician to receive this therapy.

- Communicate the project/cycle to the admitted resident and receive consent for treatment.
- Inform nursing staff about the rationale for vitamin D and calcium supplementation.
- Share information with the resident's family, substitute decision-maker and power of attorney.
- Institute vitamin D and calcium supplementation upon admission (medication reconciliation). Some newly admitted residents might be on lower dosage of vitamin D, hence during admission the dosage is adjusted by a physician to that of a therapeutic range of 1000 IU.
- Review the effectiveness of the therapy.
- Involve the pharmacist with regards to setting an appropriate dosage.

Study

Review the effectiveness of the vitamin D and calcium with regards to the incidence of falls among newly admitted residents. Track records regarding critical injuries (i.e., fractures as a result of falls). The statistical comparison of the number of falls is: Fall rates among residents pre-supplementation to fall rates recorded post-supplementation with vitamin D.

Act

Analyze the results to see if there is a potential for a greater application/utilization of vitamin D and calcium supplementation in the fall prevention program. Explore further opportunities to develop a Cedarvale Terrace Geriatric Guiding Protocol on the use of vitamin D and calcium supplementation. As a result of this cycle Cedarvale Terrace developed a Standard Protocol on vitamin D supplementation.

Description of a project to assess the effectiveness of vitamin D and calcium supplementation in preventing falls among newly admitted residents.

Currently, the medical team, pharmacy and nursing are working on finalizing protocol to provide vitamin D supplementation to all residents. Vitamin D is thought to be beneficial in preventing falls among the elderly (Table 1).

The results speak for themselves

As a result of the initiatives introduced at

Cedarvale Terrace, staff observed 50 per cent fewer falls resulting in injuries in 2008 compared to 2007. Furthermore, and even more significantly, no residents at Cedarvale Terrace suffered serious injuries such as hip fractures. Most of the falls that did occur resulted in no injuries or a skin tear or bruise. The total number of falls has been

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Fall Prevention Through innovation: Non-removable Clips

These specially engineered clips have a special lock between their wings, which prevents them from being removed. They can be used with existing call-bell systems instead of purchasing bed alarms. This may potentially save a long term care home hundreds of dollars.



The rationale for their use is as follows:

- Regular clips are often removed by non-competent residents and are therefore not effective in fall prevention.
- When properly used with call-bell systems and/or alarms, these non-removable clips are safe and will alert staff regarding a safety concern.
- The cost of each clip is approximately \$2, as opposed to the \$80–100 cost of a whole alarm unit.

Focusing on SAFE Practices among Front line Staff

Safe environment:

- At least one bed rail down unless assessed otherwise.
- Pathways clear of clutter.
- Bed brakes always applied.
- Adequate and appropriate lighting.

Assist with mobility:

- Safe and regular toileting.
- Transfer/mobility status documented.
- Mobility aids/urinals within reach.

Fall risk reduction:

- Call bell within the resident's reach.
- Bed in the lowest position for the resident's need.
- Personal items reachable.
- Proper footwear available.

Engage resident and family:

- Discuss risk factors.
- Communicate mutual plan.

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reduced by 22 per cent.

Looking to the future, the members of the interdisciplinary team remain committed to further improving the safety of residents without limiting their mobility or independence.

How families can help

Families can assist in meeting safety-related challenges by providing proper footwear (i.e., soft, without heels and non-slippery), participating in therapy sessions and communicating any safety-related observations to a nurse or a nurse manager. A resident-focused, collaborative effort is needed to

Use a Nudge: Reminders for Staff

The use of simple nudges for staff—such as a particular pen of a certain colour—may remind them to re-check residents' safety while signing documentation for conducted/ scheduled safety tasks.

Cognitive research and the latest developments in neuroplasticity show that only a small part of the information that enters the eyes actually reaches the conscious awareness. One particular finding has shown a distinction between where people look and what they actually see.

identify risks and prevent falls before they can happen. **LTC**

The author wishes to acknowledge the commitment to safety of the multidisciplinary team at Cedarvale Terrace, in particular the clients and families, front-line nursing staff (RNs, RPNs, PSWs, HCAs), the medical team, rehabilitation and physiotherapy, administration, housekeeping and the dietary departments, without whom this quality initiative would not have materialized.

References

1. Public Health Agency of Canada, 2005. Information Notice announcing that Fall Prevention is recognized a new Required Organizational Practice commonly known as [ROP] by Accreditation Canada.
2. Registered Nurses' Association of Ontario. *Prevention of Falls and Fall Injuries in the Older Adult*. RNAO, 2005. Available from: www.rnao.org/Page.asp?PageID=924&ContentID=810. Accessed August 18, 2009.

Further information

The Canadian Patient Safety Institute, www.patientsafetyinstitute.ca.
Rust TB, Wagner LM, Hoffman C, et al.. Broadening the patient safety agenda to include safety in long-term care. *HealthC Q* 2008;11:31–4.

Chapuy MC, Arlot ME, Duboeuf F, et al. Vitamin D3 and calcium to prevent hip fractures in elderly women. *N Engl J Med* 1992;327:1637–42.

Dawson-Hughes B, Harris SS, Krall EA, Dallal GE. Effect of calcium and vitamin D supplementation on bone density in men and women 65 years of age or older. *N Engl J Med* 1997;337:670–6.