



Responding to the challenge of falls in older people

Contributed by the Health Quality & Safety Commission



Falls among older people present General Practitioners and other health professionals with both a challenge and an opportunity. As the likelihood of falling increases with age, do we respond by saying falls are inevitable? Or do we look at putting in place individualised interventions that reduce the risk of an older person falling?

Falls in older people are often categorised as accidents caused by identified hazards in the environment. However, the real cause of a fall is the interaction between the hazard and the person's age-related changes in functioning and disease processes.¹

Both parts of this interaction can be addressed to prevent falls: removing hazards in the home or community environment, and better management of the person's age-related impairment or condition. This is an important role for primary care clinicians, who have a broad understanding of the health status and living situation for most people enrolled with their practice.

The "Reducing Harm from Falls" national programme, led by the Health Quality & Safety Commission (HQSC) in partnership

with ACC and other key agencies, supports health professionals in managing older people's wellbeing. The programme aims to prevent falls and reduce harm related to falls (such as skin tears, fractures, head injuries or loss of confidence and independence).

Reducing the harm caused by falls has been the first focus area of the national patient safety campaign, "Open for better care". The campaign is co-ordinated nationally by the HQSC and implemented locally by DHBs and other healthcare providers. In the Northern Region, "Open for better care" is partnered with the "First, Do No Harm" patient safety campaign.

"10 Topics on reducing harm from falls" is a set of learning activities offering up-to-date and evidence-based information for anyone involved in the care of older people at risk of falling. Links to articles published in Best Practice Journal are given in topics on hip fracture prevention and care (Topic 6), prescribing vitamin D (Topic 7), and medicine use in relation to falls risks (Topic 8).

Why assess falls risk?

One-third of people aged over 65 years living in the community have at least one fall a year, and the rate of falls increases with age.¹ Asking patients about falls is important because falls are the leading risk factor for injury in older age,² with fractures and head injuries the most serious injuries.

Hip fracture can be life-changing for older people and their families. Between 10 – 20% of older people will be admitted to residential care as a result of hip fracture; 27% will die within a year, and, of these people, almost two-thirds would not have died had they not fractured their hip.^{3,4,5}

Even if older people are not physically injured in a fall, fear of further falls may cause them to unnecessarily restrict their physical and social activities, often reducing their fitness and quality of life.¹

Older people living in the community tend to be unrealistically optimistic about falls, with most believing falls are a potential problem for their age group, but only a minority believing this risk applies to them.⁶



Current clinical guidelines on preventing falls in older people recommend routinely asking older patients if they have had a fall in the past year; many older people who have a fall do not talk about it.^{7,8}


The “Ask, assess, act” project is a key initiative in the national falls programme. A few simple screening questions can help identify which patients to target for in-depth, individualised, multi-factorial assessment and interventions.


The “ask” element suggests asking older patients the following questions:

- Have you slipped, tripped or fallen in the last year?
- Can you get out of a chair without using your hands?
- Have you avoided some activities because you are afraid you might lose your balance?
- Do you worry about falling?

The “assess” element recommends talking with patients and their families/whānau and caregivers to identify risk factors for falls. Clinical assessment covers known risk factors for falls, including muscle weakness, impaired balance, limited mobility, postural hypotension and impaired gait, vision or cognition. Other falls risk factors include the use of psychoactive medicines or multiple medicines, depression, dizziness, arthritis, diabetes mellitus, pain and urinary incontinence.⁹ Osteoporosis or anticoagulant treatment increases the likelihood of harm from a fall.

The “act” element is the most critical - determining what support and interventions might be helpful, and taking specific actions to address the older person’s particular risk factors. Many interventions that reduce falls risk are likely to be part of routine care of older people, such as managing medicines and addressing foot problems. A plan of action based on the older person’s priorities and preferences is more likely to be considered manageable by family/whānau and caregivers

 The suite of resources for the “Ask, assess, act” project, including a pocket card, can be downloaded from the Reducing Harm from Falls webpage: www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/ask-assess-act/

 **Topic 2: Which older person is at risk of falling?** (from “10 Topics on reducing harm from falls”) provides background on the “Ask, assess, act” project in more detail, and can be found at: www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/10-topics/topic-2/

Supporting independence

Basic home safety is an important consideration for all older people. A helpful check-list, "How safe is your home", is available from the ACC website (ACC home safety checklist 5218, www.acc.co.nz). Referral to an occupational therapist for environmental safety assessment and modifications reduces falls in home settings for individuals identified as having a high risk of falling.¹⁰

Older people tend to view falls as a threat to their independence and sense of identity. In one study of older people's views, 80% of participants said they would rather be dead than be admitted to a rest home after a serious hip fracture.¹¹ It is important to try to keep conversations about falls positive, focusing on preserving independence and restoring their previous level of activity.

Ideally, identification and management of falls risk should be embedded in personal health assessment protocols within primary care; the Reducing Harm from Falls programme team is currently exploring how this might be achieved.


The role of vitamin D in reducing falls


Current international falls prevention guidelines recommend vitamin D supplements to reduce falls in older people, particularly those at higher risk of falling.⁷⁻⁸ Vitamin D deficiency may cause muscular impairment even before there are adverse effects on bones,¹² which increases the risk of falling. Low levels of vitamin D have been associated

with reduced bone mineral density, high bone turnover and increased risk of hip fracture.

Vitamin D supplements may be prescribed without a blood test for older people who are likely to have a vitamin D deficiency, e.g. those who are housebound, require home support services, live in age-related care facilities, are frail or dark-skinned.^{13,14}

A Cochrane review of falls prevention interventions in older people living in the community found that vitamin D supplements did not reduce falls overall, although there was a 30% reduction in falls risk in the subgroup of trials that recruited only people with lower vitamin D levels.¹⁰ Residents in age-related care facilities who take vitamin D supplements have 37% fewer falls than those not taking a supplement.¹⁵

 ACC information sheets providing vitamin D prescribing advice for general practice teams and pharmacists can be found at: www.acc.co.nz/preventing-injuries/at-home/older-people/information-for-older-people/PI00014

 The evidence base on the role of vitamin D in reducing falls and fractures is complex and evolving as clinical trials come to completion, such as the Auckland-based Vitamin D Assessment (ViDA) study. A brief discussion of current evidence is presented in **Topic 7: Vitamins D and falls: what you need to know**, which can be found at: www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/10-topics/topic-7/



Improving balance and strength

Certain exercise programmes have been found to be effective in reducing falls and fall-related injuries in older people living in the community. These interventions can also reduce health system costs by decreasing fall-related hospital admissions among older people living in the community by up to 10%.


Both group and home-based multiple-component exercise programmes have been shown to reduce falls by approximately 30%,¹⁰ and it is likely that there is better value for money and more benefit among people at higher risk, e.g. those who have had a fall in the past year. Attendance at Tai chi classes has been shown to reduce falls by 28%, although classes are more effective for participants who are not at high risk of falling.¹⁰




Older people may be reluctant to participate in exercise programmes for reasons such as fatalism, fear of falling, no previous history of exercise, poor health and functional ability, low health expectations and the stigma associated with programmes targeting older people.¹⁶

As many older people do not consider themselves at risk of falling, it is important to promote exercise classes by emphasising their positive benefits for health, wellbeing and independence.¹⁷

Many older people enjoy the social aspect of group classes, but home-based programmes are also valuable because some people dislike joining groups or find them difficult to attend. Older people are more likely to participate if they are encouraged by a health professional and are offered a choice of programme types and settings.


 To match patients with exercise programmes, contact local Green Prescription coordinators or ACC community injury prevention consultants at: information@acc.co.nz


 **Topic 9: Improving balance and strength to prevent falls**, discusses the effectiveness of exercise programmes designed to prevent falls, including a summary of the evidence on effective components, exercise 'dose' and duration. It can be found at: www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/10-topics/topic-9/

Falls are everybody's business

A key message of the falls focus of the "Open for better care" campaign is that falls are everybody's business. Taking action to reduce the harm caused by falls is an important part of helping older people to maintain their health, wellbeing and quality of life.

Falls prevention efforts aim to see falls risk identification protocols and falls prevention programmes increasingly in place across all care settings, particularly primary care, and a corresponding reduction in falls-related hospital and ED admissions.

 For further information on falls, see: www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/

 For further information on the Open for better care national patient safety campaign, see: www.open.hqsc.govt.nz



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More information is available at:
www.bestpractice.net.nz



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References

1. Rubenstein LZ. Falls in older people: epidemiology, risk factors and strategies for prevention. *Age Ageing* 2006;35(s2):ii37-ii41.
2. Ministry of Health. Health loss in New Zealand: A report from the New Zealand burden of diseases, injuries and risk factors study, 2006–2016. Ministry of Health, Wellington, 2013.
3. Autier P, Haentjens P, Bontin J, et al. Costs induced by hip fractures: a prospective controlled study in Belgium. *Belgian Hip Fracture Study Group. Osteoporos Int* 2000;11(5):373–80.
4. Kiebzak GM, Beinart GA, Perser K et al. Undertreatment of osteoporosis in men with hip fracture. *Arch Intern Med* 2002;162(19):2217–22.
5. New Zealand Health Information Service. Fractured neck of femur services in New Zealand hospitals 1999–2000. Ministry of Health, Wellington, 2002.
6. Dollard J, Barton C, Newbury J, Turnbull D. Older community-dwelling people's comparative optimism about falling: A population-based telephone survey. *Australas J Ageing* 2012;32(1):34–40.
7. Panel on Prevention of Falls in Older Persons, American Geriatrics Society and British Geriatrics Society. Summary of the updated AGS/BGS clinical practice guideline for prevention of falls in older persons. *J Am Geriatr Soc* 2011;59:148–57.
8. National Institute for Health and Care Excellence. NICE Clinical guideline 161 Falls: assessment and prevention of falls in older people, 2013. Available from: <http://publications.nice.org.uk/falls-assessment-and-prevention-of-falls-in-older-people-cg161> (Accessed Mar, 2014).
9. Delbaere K, Close JC, Heim J, et al. A multifactorial approach to understanding fall risk in older people. *J Am Geriatr Soc* 2010;58(9):1679–1685.
10. Gillespie LD, Robertson MC, Gillespie WJ, et al. Interventions for preventing falls in older people living in the community. *Cochrane Database Syst Rev* 2012;(9):CD007146.
11. Salkeld G, Cameron ID, Cumming RG, et al. Quality of life related to fear of falling and hip fracture in older women: a time trade off study. *BMJ* 2000;320(7231):341–6.
12. Glerup H, Mikkelsen K, Poulsen L, et al. Hypovitaminosis D myopathy without biochemical signs of osteomalacic bone involvement. *Calcif Tissue Int* 2000;66(6):419–24.
13. Ministry of Health and Cancer Society of New Zealand. Consensus statement on vitamin D and sun exposure in New Zealand. Ministry of Health, Wellington, 2012.
14. bpac^{nz}. Vitamin D supplementation: navigating the debate. *BPJ* 2011;36:26–35.
15. Cameron ID, Gillespie LD, Robertson MC, et al. Interventions for preventing falls in older people in care facilities and hospitals. *Cochrane Database Syst Rev* 2012;(12):CD005465.
16. Bunn F, Dickinson A, Barnett-Page E, et al. A systematic review of older people's perceptions of facilitators and barriers to participation in falls-prevention interventions. *Ageing Soc* 2008;28:449–72.
17. Yardley L, Bishop FL, Beyer N et al. Older people's views of falls-prevention interventions in six European countries. *Gerontologist* 2006;46(5):650–60.