

Risk Matters



Dear Reader,

The incidence of falls increases with age and is linked to increased disability and mortality in older people. "National Falls Week" ran in the UK during June to draw attention to the impact falls can have, such as loss of confidence and increased dependency.

The "Blue Book", written jointly by the American and British Geriatric Societies and first published in 2001, was for many years the main reference for those seeking to develop evidence-based interventions for the prevention of falls in the elderly.¹ The book raised the profile of falls prevention. It helped to reduce fall-related serious injury and service utilisation in both acute and chronic care situations and, most particularly, it offered guidance that prevented functional decline and nursing home placements.

A new edition of the "Blue Book" that takes account of the welter of published evidence since the original is therefore an important event.² The recommendations it contains can also inform the insurance industry in the assessment of Long Term Care (LTC) Insurance applicants who are at risk of falling.

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It is estimated that one-in-three people over the age of 65 fall each year. Falls have long been recognised as a leading cause of disability and even mortality in older people, particularly those aged over 75. About 5% of community-dwelling elders who fall require emergency medical care. Approximately 86,000 hip fractures occur in the UK each year, 95% of which are the result of falls, with a mortality rate of 10% at one month, 20% at four months and 30% at one year.³ The cost to the UK's National Health Service (NHS) is in the region of GBP1.7 billion pounds per annum.⁴ Thankfully, the majority of falls do not result in the kind of serious injury that can trigger an LTC claim, but some of the consequences of falling, or of not being able to get up again following a fall, include psychological problems, loss of self confidence and mobility, increasing social isolation, dependency, disability and even hypothermia or pressure-related injury and infection. The interaction between the initial fall and the subsequent psychological reaction must be addressed early if the person is not to develop a cycle of dependence that could precipitate an LTC claim.

Screening people for falls risk

Given the numbers of people falling and the consequences of those falls, it is vital that the risk is thoroughly assessed at underwriting stage. As assessment is the cornerstone of prevention, what does the Blue Book tell us about this issue? The first recommendation is to screen for those at risk. This is done by the very simple expedient of asking the person if they have fallen in the past year. Some people cannot recall falling, and in such cases possible memory problems must be picked up and addressed elsewhere in the assessment. For applicants who have screened positive on this type of question, the next step would be to ask the frequency and circumstances of their falls. A third screening question is to ask the individual if she or he has experienced any difficulty with walking or balance.

For those that screen positive at this stage, exploration of known risk factors for falls should be made. Over 400 risk factors have been described at one time or another but a number of common factors should be recorded (see table 1).

Table 1 – Common Risk Factors for Falls

History of falls
Multiple medications (particularly psychotropics)
Problems with gait, balance or mobility
Impaired vision
Other neurological problems (e.g., Parkinson’s)
Reduced muscle strength
Heart problems (particularly rhythm or rate)
Postural hypotension
Foot problems

Factors that increase the risk of falls may be extrinsic (environmental), such as poorly placed floor mats or tricky stairs, or they may be intrinsic, such as reduction in muscle strength. Importantly, it is not simply the presence of risk factors but their interaction that matters. The Blue Book cites a number of studies in which individuals with no risk factors demonstrated a falls risk of between 12%-25% rising to 69%-78% in the presence of four factors. For those with hip weakness, unstable balance and taking four or more medications, the risk was 100%.

Cleverly designed application form questions can reveal a great deal about a person’s future fall risk, such as a past history of falls, current medications or visual problems. Although application disclosures paint an initial picture for LTC underwriters, deeper understanding comes only from an appropriate examination conducted on the applicant in her or his own home.

It is best practice to make assessments using well validated measurement tools that allow the risk to be quantified. The Blue Book recommends a number of possible scales for the assessment of balance and gait, but due to a lack of prospective studies it finds recommending one scale ahead of another to be tough. In the “Timed Up and Go” test, the examiner times an individual as he or she stands up from a standard arm chair, walks a distance of three meters, turns, walks back to the chair and sit down. The person wears her or his usual footwear and undertakes the test with a walking aid if it’s normally used. The precise cut-off time representing significant risk of future falls is debatable but is usually taken as between 13.5-14 seconds.

The Berg Balance Scale is more complex, asking the applicant to undertake fourteen different actions ranging from getting up from a sitting to a standing

position to placing alternating feet on a step or stool while standing unsupported. Each of the items is clearly defined, as is the scoring system. Clearly this takes much longer than the Timed Up and Go test and requires standardised equipment. Chui found the most effective item for identifying falls risk was “retrieve an object from the floor from a standing position”.⁵

Tinetti’s Performance Oriented Mobility Assessment (POMA) examines the person’s gait and balance, combining the scores from the two domains to give an indication of fall risk. Like the Berg Balance Scale, the subject is asked to complete a number of tasks. Whilst the balance assessment is not dissimilar to the Berg Scale, the assessment of gait is more complex and perhaps more subjective. A perfectly normal individual would score 28 points. Those scoring 25-28 have a low risk, 19-24 medium risk and under 19 a high risk of falls. This test only takes around 10 or 15 minutes to complete.

Multifactorial falls risk assessment

Assessments of gait and balance form part of the “Multifactorial Risk Assessment” which has four elements to guide interventions (see table 2).

Table 2 – Multifactorial Risk Assessment

Focused history on the falls, a medication and review of relevant risk factors (e.g., osteoporosis, cardiovascular disease).
Physical examination including gait and balance, neurological examination (including cognitive examination), muscle strength, cardiovascular system, vision, feet and footwear.
Functional Assessment – Activities of Daily Living including aids and adaptations and the person’s perceptions of her or his own abilities.
An environmental assessment.

Following this assessment, interventions are made. The changes that have been demonstrated to reduce the frequency and severity of falls include:

- Minimisation of medication (particularly psychotropics)
- Individual exercise program
- Treatment of visual impairment
- Management of postural hypotension
- Correcting heart rate and rhythm abnormalities
- Treat osteoporosis
- Manage foot and shoe problems
- Change the home environment to make it safer
- Provide the person with education and information

A periodic review is recommended after these interventions have been made.

Conclusion

Falls with their complex and multifactorial causes represent a significant potential cause of LTC claims. The Blue Book provides evidence-based strategies that can improve the underwriting of the risk. Appropriately designed questionnaires could better identify those at risk; using validated tests means that any decisions taken are less subjective and potentially provide consistent information to review claims experience. The underwriter has to assume the role of the medic undertaking the assessment and pull together a number of strands (e.g., medication, postural hypotension, the description of the applicant's environment) to understand the falls risk. Creative marketing of new LTC products might offer a more formal falls risk assessment and intervention as a cost-effective means of reducing future claims.

The charity AgeUK coordinates National Falls week which this year ran from 20-24th June.⁶ The aim is to encourage older people to learn more about how to prevent falls. One of the main themes for this year is the impact of poor vision. With 98% of people over the age of 65 wearing glasses, this is key, especially as visual impairment increases the risk of a fall by 1.7 times. Events such as these not only raise awareness with the public about their possible outcomes in older age but create a focus for LTC insurance that emphasises once again those areas of elder care that are vital to the industry.

Endnotes

- 1 American Geriatrics Society, British Geriatrics Society and American Academy of Orthopedic Surgeons. Panel on Falls Prevention. Guidelines for the prevention of falls in older persons. Journal of the American Geriatrics Society 2001. 49. 664-672.
- 2 AGS/BGS Clinical Practice Guideline: Prevention of Falls in Older Persons at http://www.bgs.org.uk/index.php?option=com_content&view=article&id=320:bgsagsfalls2010&catid=47:fallsandbones&Itemid=307.
- 3 Delivering Quality and Value, Focus on: Fractured Neck of Femur, NHS Institute for Innovation and Improvement at http://www.institute.nhs.uk/images/documents/Quality_and_value/Focus_On/DVQ_path_fracturefemurPROOF_Nov.pdf.
- 4 Falls among the elderly cost the NHS millions daily at <http://www.bbc.co.uk/news/10353642>.
- 5 Chiu AY, Au-Yeung SS, Lo SK. A comparison of four functional tests in discriminating fallers from non-fallers in older people. Disability and Rehabilitation. 2003. 25. 45-50.
- 6 <http://www.ageuk.org.uk/health-wellbeing/national-falls-awareness-week/>.



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