# Quick reference guide to Preventing falls and harm from falls in older people.

Best practice guidelines for Australian hospitals and residential aged care facilities.

2005

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The Australian Council for Safety and Quality in Health Care was established in January 2000 by the Australian Government Health Minister with the support of all Australian Health Ministers to lead national efforts to improve the safety and quality of health care, with a particular focus on minimising the likelihood and effects of error. The Council reports annually to Health Ministers.

Copies of this document and further information on the work of the Council can be found at www.safetyandquality.org or from the Office of the Safety and Quality Council on telephone: +61 2 6289 4244 or email to: safetyandquality@health.gov.au.

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**CD/DVD STORAGE**

# **Quick reference guide to** Preventing falls and harm from falls in older people.

## Best practice guidelines for Australian hospitals and residential aged care facilities.

## The Australian Council for Safety and Quality in Health Care

*Preventing falls and harm from falls in older people. Best practice guidelines for Australian hospitals and residential aged care facilities* (the Guidelines) were developed with the help of older Australians for older Australians. This abridged version of the Guidelines is designed as a quick reference tool. The Guidelines themselves are a more comprehensive resource and should be referred to when implementing a fall-prevention program.

The Guidelines are specifically targeted for use in public and private hospitals and residential aged care facilities. They are to be used to guide clinical practice and assist facilities to develop and implement practices to prevent falls and injuries from falls.

The Guidelines are based on contemporary and relevant literature.They identify principles of care and special considerations for Culturally and Linguistically Diverse (CALD), Indigenous and rural and remote groups. The Guidelines use recommendations, good practice points, case studies and points of interest to facilitate understanding and promote implementation.

There is a need for further research to establish the effect of interventions on falls rates[1] so it is recognised that sound clinical judgement employed by informed professionals is best practice in situations where strong recommendations have not been made.

## Support resources

The following resources have been designed to support implementation of the Guidelines and are available on Smart CD or by visiting www.safetyandquality.org:

- *Preventing falls and harm from falls in older people. Best practice guidelines for Australian hospitals and residential aged care facilities.*
- Short Film: *Taking steps to prevent falls in older people. A resource for Australian hospitals and residential aged care facilities.*

  This short film may be used in orientation programs or as an educational resource for all health care employees. It is available in DVD, VHS video tape and MPEG formats.
- Brochures: The following brochures are useful for older people to help them learn about falls, their consequences and ways to reduce the risk of falls:
  - Hospitals:
    *Fall prevention: information for patients and carers*
  - Residential aged care facilities:
    *I want to stay independent. Slips, trips and broken hips are not for me.*
- Fact sheets: The following fact sheets are a useful and quick introduction to fall prevention for health care workers and are targeted at different groups:
  - *Fall facts for allied health professionals*
  - *Fall facts for doctors*
  - *Fall facts for health managers*
  - *Fall facts for nurses*
  - *Falls facts for support staff (cleaners, food services and transport staff)*
- Poster
- Indigenous resources:
  - *Falls are not for me.*

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## Key messages of the Guidelines

1. ***Many falls can be prevented.***
2. ***Fall and injury prevention needs to be addressed at both point of care and strategic levels.***
3. ***Involvement of the older person and their carers is an integral element to successfully preventing falls and minimising harm from falls.***
4. ***Best practice in fall and injury prevention includes implementation of standard strategies, identification of fall risk and implementation of targeted individualised strategies that are adequately resourced, regularly reviewed and monitored.***
5. ***Staff in health care facilities should be engaged in a multifactorial fall-prevention program.***
6. ***At a strategic level, there will be a time lag between investment in a fall-prevention program and improvements in outcome measures.***

## What is a fall?

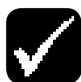
'A fall is an event which results in a person coming to rest inadvertently on the ground or floor or other lower level.' World Health Organisation www.who.int/violence_injury_prevention/unintentional_injuries/falls/falls1/en/

## Levels of evidence and strength of recommendations

The Guidelines (see page xvii) clearly identify the level of evidence (I to IV) and the strength of recommendations (A to D) for each recommendation.

**Recommendations** nearer Level I-A are based on high-quality research and are stronger than those nearer Level IV-D, which are based on consensus expert opinion.

Additionally, where published evidence was not available,

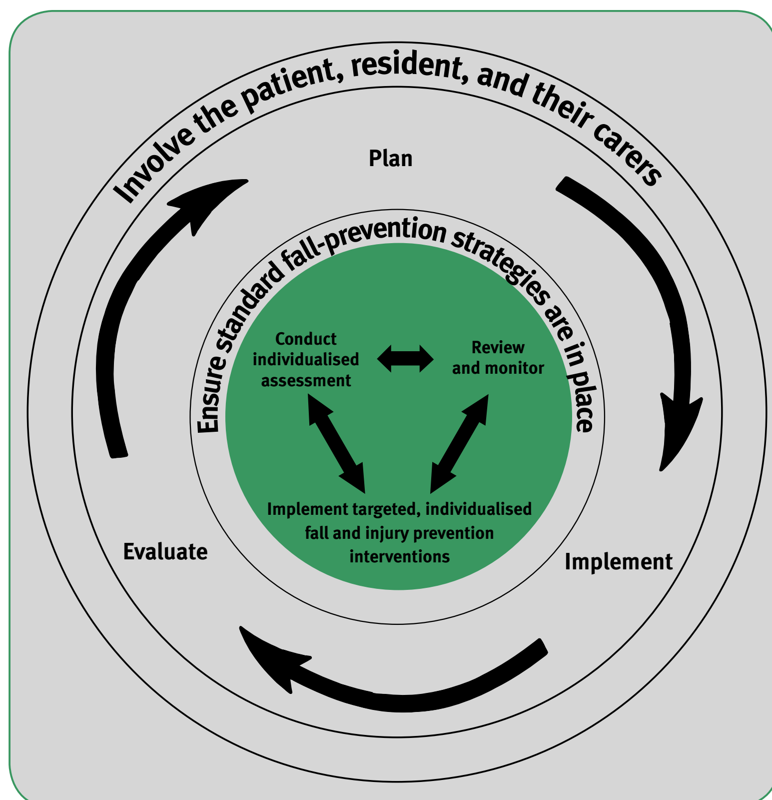


**Good practice points** are based on clinical experience or expert consensus are made.

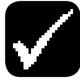
## How to use the Guidelines

This quick reference guide is intended for use as a supplementary resource to the Guidelines. The diagram below illustrates how to use the Guidelines and is split into two linked sections. Involvement of the patient, resident and their carers is necessary at all stages.

At a strategic level a fall-prevention program needs planning, implementation and evaluation as represented in the outer circle. The inner circle represents standard fall-prevention strategies that are implemented at the individual or point of care level (see Section 2 of the Guidelines). Individualised assessment, targeted individualised interventions and continuous review and monitoring is recommended (see Sections 3 and 4 of the guidelines).



## 1. Involving the patient, resident and their carers



**Good practice point**

*Encourage the participation of older people in fall prevention.*[2]

Encourage the participation of older people in fall prevention by[2]:

- focussing discussions and activities around independence rather than using the term 'fall prevention', which could be unfamiliar and difficult to understand for many in this age group[3]
- providing relevant and useable information to enable older people and their carers to take part in discussions and decisions about preventing falls
- finding out what changes an older person is willing to make to prevent falls, so that appropriate and acceptable recommendations can be made that are more likely to be followed[3]
- offering information in languages other than English, where appropriate
- exploring barriers with older people that may prevent action to reduce falls (such as fear of falling) and supporting older people in overcoming these barriers
- developing fall-prevention programs that are flexible enough to accommodate older people's needs, circumstances and interests.

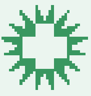
## 2. Standard fall-prevention strategies

### Recommendation II-C

A multifaceted approach to prevention of falls should be considered as part of routine care for all older people in hospitals and residential aged care facilities.

Twelve standard strategies should be implemented. Health managers should support and facilitate implementation of these strategies as an initial step in preventing falls. Further detail is available in the Guidelines.

1. **Screen or assess** all older people for their risk of falling.
2. **Educate,** discuss and record (with regular review) fall-prevention risks and interventions with all staff, older people and their carers.[4 5]
3. **Record** fall-prevention education[5], screening, assessment and interventions.
4. Ensure that a person's mobility status is established and that if they are mobile they can **mobilise** safely.
5. Encourage **participation in functional activities and exercise.**[4 6]
6. Establish a plan of care to maintain **bowel and bladder function**.[4]
7. Provide **appropriate medication advice**[4] and ensure that unnecessary medications are not prescribed.
8. Make the **environment** safe.
9. **Orientate** the person to the bed area, room, toilets and bathroom and how they can obtain assistance.[4 5 7]
10. Instruct and ensure that older people can use **assistive devices** prior to prescribing them.[4]
11. Have a policy in place to minimise the use of **restraints and bedside rails**.[4]
12. Consider **vitamin D supplementation with calcium**.



## 3. Assessment

**Recommendation II-B**

As part of a multi-component program conduct a systematic and comprehensive, multidisciplinary fall-risk assessment to inform the development of an individualised plan of care to prevent falls.

It is important that assessment leads to intervention.

***Fall-risk screening***

Fall-risk screening provides an efficient means (often less than five items to check) of identifying those people at greatest risk of falling who should have a comprehensive fall-risk assessment performed.[7]

***Fall-risk assessment***

Fall-risk assessment is a more detailed and systematic process than screening and is used to identify a person's risk factors for falling. It is undertaken for those people who exceed the threshold of the fall-risk screen tool or who are from a setting where the majority of people are considered to be at a high risk of falls (e.g. dementia unit).

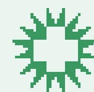
When a fall-risk screen or assessment is used, it needs to be supported with education for staff and intermittent reviews to ensure its appropriate and consistent use. The frequency of assessment needs to be determined as do triggers for re-assessment (e.g. a fall, or change in health status).

Recommended tools are included in Section 3 of the Guidelines.

## 4. Fall-prevention interventions

**Recommendation II-B**

Develop and implement a targeted and individualised fall-prevention plan of care based on the findings of a fall screen or assessment.



The following fall-prevention interventions are based on recognised risk factors for falling in hospitals and residential aged care facilities. Using as many appropriate interventions as possible in a program is more likely to reduce falls than using only a single fall-prevention intervention.

### *4.1 Impaired balance, reduced mobility, muscle weakness and lack of exercise*

**Recommendation II-B**

As part of a multifactorial fall-prevention program, identify balance, mobility and strength problems then tailor an individual program to address these in hospital, post-hospital and residential aged care settings.

Some types of exercise may reduce the risk of falls. Exercise is generally safe for older people (under the guidance of a health professional) and may have ongoing benefits to general wellbeing.[8] Exercise should suit the individual. A balance program should incorporate functional, standing movements that safely challenge a person's limits of stability.

## *4.2 Cognitive impairment*

**Recommendation II-B**

***Cognitive impairment***

- Managing the symptoms of cognitive impairment by addressing agitation, wandering and impulsive behaviour is necessary.
- When an older person presents with cognitive impairment, the cause should be established. It is important that strategies are included to prevent the risk of delirium.
- Provide supervision and assistance to ensure that older people with delirium or dementia, who are not capable of standing and walking safely, receive help with all transfers.

***Delirium***

- It is essential to confirm that any disruptive behaviour is not due to acute delirium or delirium superimposed on dementia.
- Multi-component intervention to prevent delirium may provide an effective strategy for reducing falls in older patients.

Older people with cognitive impairment are at increased risk of falls.[7 9 10] Cognitive impairment is commonly experienced by older people in hospital (up to 40 per cent) and residential aged care settings (approximately 50 per cent).[7]

## *4.3 Continence*

**Recommendation II-B**

Identify, assess and introduce a management plan for people with incontinence or who are at risk of becoming incontinent.

It is likely that the relationship between incontinence and falls is confounded by mobility and cognition.[1] Although there is good observational evidence of association between incontinence and falls there is a need for further research to establish whether continence management impacts on fall rates.[1]

### 4.4 Feet and footwear

**Recommendation II-B**

Screen older people for ill-fitting or inappropriate footwear and give education and information about footwear features that may reduce fall risk (i.e. the use of slippers should be discouraged).

The Safe shoe checklist in the Guidelines (Appendix F1) is a reliable tool that has been developed for evaluating specific shoe features that could potentially improve postural stability in older people.[11 12] Foot pain may be investigated by a podiatrist.

### 4.5 Syncope and dizziness

**Good practice points**

- *Older people in hospitals and residential aged care facilities who experience falls associated with syncope or presyncope should undergo medical assessment.*
- *Older people should be encouraged to report episodes of dizziness, light-headedness or faintness. Medications that cause these symptoms should be ceased if possible and appropriate.*
- *In the presence of known hypotension, or situations of risk such as post operatively, people should be encouraged to slowly sit up from lying, slowly stand up from sitting, and to wait a short time before walking.*
- *Postural hypotension should be considered as a potential cause of unexplained falls.*

Syncope (temporary loss of consciousness) and presyncope make up about five per cent of falls and the commonest causes include myocardial ischaemia or infarct, aortic stenosis, postural hypotension, arrhythmia and epileptic seizure. The most common causes of neurally mediated syncope in older adults are carotid sinus syndrome, postural hypotension and vasovagal syncope.[13]

### 4.6 Medications

**Recommendation II-B**

Medications related to falls need to be reviewed and appropriately modified as a component of a multifactorial approach to reducing the risk of falls in older people.

The risk of falls can be increased by medication interaction, unwanted side effects and even the desired effects of medications.[6] Medication misuse and overuse can also increase the risk of falling.[6] Older people are at increased risk of falling from adverse medicine events due to altered pharmacokinetics and pharmacodynamics, inappropriate prescribing and non-compliance with prescribed drug therapy. Sometimes an effect may only manifest or become more pronounced with increasing age and associated debility or during times of illness.

## *4.7 Vision*

**Recommendation II-B**

**II-C** Attention to visual function screening and referral for visual function assessment and management should be included as part of a multifaceted fall-prevention program.

**III-D**

- Undertake annual eye examinations to reduce the incidence of visual impairment, which is associated with an increased risk of falls.
- Advise people who have had falls involving environmental obstacles (e.g. stairs and curbs) to use distance glasses when walking.

Vision has been shown to have a clear role in fall risk in the community setting[10], although there are limitations in existing research in hospitals and residential aged care facilities.

## *4.8 Environmental considerations*

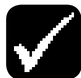
**Recommendation II-B**

**II-B** Environmental modifications to ensure safety should be included in multifactorial, multidisciplinary fall-prevention interventions.

**II-C** People considered to be at higher risk of falling should be assessed by an occupational therapist for specific environmental/equipment needs and training to maximise safety.

It is known that the environment plays a role in a multifactorial fall-prevention program. Further research is required to determine the effect of environmental interventions as a sole intervention in fall prevention within hospital and residential aged care facilities.

### *4.9 Individual surveillance and observation*



**Good practice point**

*Surveillance and observation approaches are particularly useful for older people who have a high fall risk and/or who may be temporarily or permanently cognitively impaired. Observation and surveillance should be considered as components of a multifactorial fall-prevention program.*

Many falls that occur in facilities are unwitnessed. This is an area requiring further research.[14] Among other strategies, the Guidelines outline approaches for identifying when a person at high risk of falling is getting out of a bed or chair unsupervised, particularly for people with cognitive impairment (e.g. bed/chair alarm, 'sitter' programs).

### *4.10 Restraints*

**Recommendation II-B**

Alternatives to restraint should be considered and trialled for people with cognitive impairment. Restraint should be considered the last option for people who are at risk of falling.[15]

There is little evidence that physical restraints reduce incidents of falls or serious injuries in older people.[16-19] However, there is evidence that they can cause death, injury or infringement of autonomy.[20 21]

## 5. Injury prevention interventions

To provide older people with additional protection, facility staff should consider the risks and advantages of implementing injury prevention strategies.[22] The following injury prevention interventions may be applied systematically to the at risk population or after a fall to reduce the chance of injury.

### *5.1 Hip protectors*

**Recommendation II-B**

**I-D** ***Residential aged care:***
Hip protector use should be considered for people living in residential aged care facilities with a high risk of hip fracture (defined as having limited independent mobility, a history of falls and osteoporosis). There needs to be commitment from the facility to introduce training for staff and continuing support for the use of hip protectors.

**III-D**

- ***Hospitals***
  Hip protector use should be considered for patients in sub-acute hospital wards who are at high risk of falls (defined as having limited independent mobility, or confusion with agitation). There needs to be commitment from the facility to introduce training for staff and continuing support for the use of hip protectors.

- Older people who are at high risk of hip fracture (defined as those greater than 80 years of age with a history of falls and/or osteoporosis), and who believe that they will be able to use hip protectors and see no barriers to their use, should be offered hip protectors.

Hip protectors work by absorbing and dispersing the energy created by a fall away from the hip joint. The soft tissues and muscles of the surrounding thigh absorb the energy instead. Hip protectors must be worn over the greater trochanter of the femur to be effective.

### *5.2 Vitamin D and calcium*

**Recommendation II-B**

Vitamin D and calcium supplementation should be considered as a routine management strategy as it appears to significantly reduce the risk of falls among ambulatory or institutionalised older people.

Low vitamin D levels have been associated with reduced bone mineral density, high bone turnover and increased risk of hip fracture.[23] There is evidence that vitamin D may prevent falls through improved muscle strength, independent of any other role in maintenance of bone mineral density.[24 25]

### *5.3 Osteoporosis management*

**Recommendation II-B**

**II-B** To decrease subsequent fracture rates, appropriate treatment with bisphosphonates or SERMS should be undertaken for people who have previously sustained a fracture and who have osteoporosis.

**IV-D** Hospitals should establish protocols that increase osteoporosis treatment rates in people who have sustained their first osteoporotic fracture.[26]

Interventions that reduce fall risk may prevent fractures, even if bone density is not altered. This is of particular relevance to the very old, in whom low bone density places them at particular risk of fracture, and each additional fall increases the likelihood of another fracture.

## 6. Post-fall management

### Recommendation II-C

As part of a multi-component fall-prevention program, post-fall assessment should be completed on all older people who fall whilst in hospital or residential aged care facilities.

Responding to incidents requires a facility to have a fall incident policy and a minimum data set for reporting falls.

People who fall repeatedly and people who are prone to injurious falls require a fall evaluation, the details of which are outlined in the Guidelines.

People who have sustained a hip fracture should be referred immediately to an orthopaedic service and be treated with reference to hip fracture management guidelines. The factors contributing to the fall that caused the fracture should be investigated and addressed.

Falls clinics are specialist multidisciplinary services that focus on the assessment and management of people who have fallen, or have mobility or balance problems. They should not be the first intervention for an older person who has fallen or is at risk of falling.

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## Notes:

**Notes:**

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