Falls prevention

Definition of a fall: 'Unintentionally coming to rest on the ground, floor or other lower level, but not as a result of syncope or overwhelming external focus' (Agostini, Baker & Bogardus 2001).

Key messages about fall prevention strategies:

- Many falls can be prevented.
- Best practice in fall and injury prevention includes identification of fall risk implementation strategies and targeted individualised strategies that are adequately resourced, monitored and regularly reviewed.
- The outcome of the fall/risk assessment and identified preventative strategies are discussed with the older adult, their family and all health care staff and incorporated into the older adult's individualised care plan.
- The most effective approach to fall prevention is likely to be one that involves all staff and the use of a multifactorial falls prevention programme.

Falls risk factor

Environmental	Person-centred	Medication
Request OT and PT assistance	**Request medical review if new or ongoing issues suspected despite intervention**	
▪ Unsuitable footwear ▪ Lighting – levels that cause glare or limit visibility ▪ Stairs ▪ Floors, surfaces that cause slips, trips, stumbling ▪ Patient rooms, clutter and furniture, lack of supports, eg, call bell ▪ Personal frequently used items out of reach, eg, glasses, water, reading material ▪ Bed position, unlocked brakes ▪ Bathrooms: wet/slick floors, rugs/mats not properly secured ▪ Seating not individualised to resident's needs/abilities ▪ Elevators ▪ Required medical review if new or ongoing issues suspected despite intervention ▪ Reduced access to use of assistive devices	▪ Increasing age especially > 65 years ▪ History of falls, eg, two or more in previous months ▪ Wandering, unsafe behaviour ▪ Cognitive impairment ▪ Incontinence, UTIs ▪ Independent transfers ▪ Hyper/hypotension especially postural drop ▪ Impaired balance or weakness especially of lower extremities ▪ Unsteady gait/use of a mobility aid ▪ Impaired hearing or vision ▪ Fever/acute illness, eg, pneumonia ▪ 24 hours after surgery ▪ Depression/anxiety/delirium/ confusion ▪ Primary cancer ▪ Dehydration/poor nutrition ▪ CHF, heart disease and/or arrhythmias ▪ Neurological disorders including seizures ▪ Dizziness, vertigo ▪ History of alcohol abuse and/or intoxication ▪ Diabetes	▪ Over the counter and/or prescribed polypharmacy ▪ Laxatives ▪ Diuretics and/or increase in dose ▪ Anti-arrhythmics ▪ Anti-coagulants ▪ Anti-hypertensives ▪ Vasodilators ▪ Sedatives, tranquilisers, psychotropic drugs ▪ Anti-depressants ▪ Narcotics ▪ Hypoglycaemic agents ▪ Anaesthetics ▪ Anti-seizure/anti-epileptic

Highest risk of falls – residents who are:

- able to stand but need assistance with transfers
- incontinent
- cognitively impaired
- new to the facility

Comprehensive multidisciplinary falls assessment (to be carried out after ANY fall):

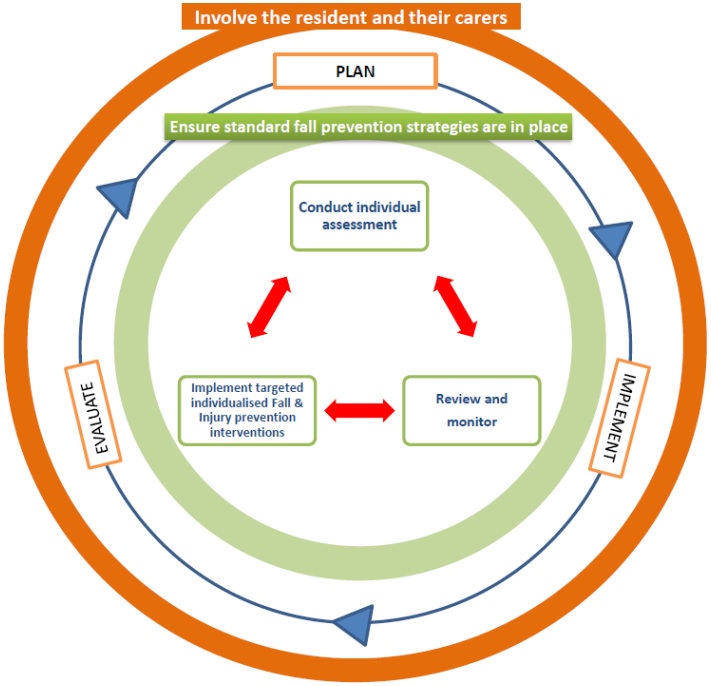
- Health history and functional assessment
- Medications and alcohol consumption review
- Vital signs and pain assessment
- Vision screening
- Gait and balance screening and assessment
- Footwear assessment
- Musculoskeletal and foot assessment
- Continence assessment
- Cardiovascular assessment
- Neurological assessment
- Depression screening
- Walking aids, assistive technologies and protective devices assessments
- Environmental assessment
- Cognitive assessment
- Falls history including causes and injuries consequences
- Syncope syndrome
- Osteoporosis risks

RESTRAINTS are not a method of fall prevention – retrain but do not restrain

Identify risk factors that can be treated, improved or managed

Components of a falls prevention programme

1. Initial assessment of all residents to identify their falls risk and develop a care plan with interventions for their individual risk factors
2. Risk assessment factors entered into all residents' health records
3. Ongoing reassessment for causes, factors and falls as part of a 3-monthly clinical review or sooner if further falls, change in health status or change in environment
4. Appropriate prevention/intervention plan implemented for all residents
5. High risk residents may be identified at the bedside with a 'fall symbol' and will have the 'high risk' interventions implemented as appropriate
6. Consider referral to specialised gerontology service
7. Documentation of all falls and completion of incident report
8. Measuring and monitoring of fall rates/injury rates
9. Monitor and audit uptake of falls programme, eg, hip protection, vitamin D uptake, exercise programme participation, staff education
10. Attention to the environment: lighting, flooring, furniture, bathrooms and toilets
11. Staff education programmes



Falls preventions/interventions for individual residents

- Restraints: avoid or ensure awareness of risk
- Staff education and high level of awareness of each resident's falls and risk factors
- Resident education, eg, personal limitations and asking for assistance
- Individualised care plans and intervention programmes
- Attention to vision/visual aids, eg, annual review, use correct glasses for mobilising
- Orientation and reorientation to environment and how to obtain assistance
- Agitation, wandering and impulsive behaviour – recognise and eliminate or reduce factors that precipitate these behaviours
- Regular case conferences including all caregivers, nursing, medical and allied health staff
- Regular review of medications for elimination or dose reductions (aiming to maximise health benefits while minimising side effects, eg, falls)
- Work alongside and with high-risk residents, increasing assistance to them as needed
- Exercise – encourage participation in exercise programmes for improving balance
- Wellbeing – encourage participation in exercise programmes for improving balance
- Well fitting non-slip footwear and treatment of any foot problems – refer to a podiatrist
- Continence management – (bowel and bladder) as required
- Adequate fluid and nutrition – ensure fluid readily available
- Attention to environmental issues – general and individualised, which includes:
  - specialised advice on assistive and mobility devices
  - correct use of moving and handling equipment
  - MDT approach with management
- Hip protectors – consider the use of hip protectors amongst those clients considered at high risk of fractures associated with falls (there is no evidence to support universal use of hip protectors amongst the older adult in health care settings)
- Vitamin D is associated with a reduction in falls and fall related fractures

Value of exercise

Exercise to improve balance, strength and gait is a key component of fall prevention programmes

Post-fall assessment

Resident falls:
- Witnessed or unwitnessed?
- Find out how/why they fell?
- Did they hit their head?
- Are they on an anti-coagulant (warfarin/dabigatran)?

Wait – DO NOT MOVE for at least 5 minutes until an assessment is completed.

Before moving, check for: bleeding, limb misalignment, hip/shoulder/elbow/groin pain with palpation.

No apparent injury:
- Alert
- No pain
- No wounds or bleeding
- No limb deformity
- Mobility unaffected

- Assist resident to a comfortable place (using hoist/manual handling aid)
- Observe for 24 hours (observation/neurology) per facility protocol
- Inform relatives
- Post-fall review GP/NP
- Complete facility post-fall protocols/incident forms

Minor injury:
- Minor bruising
- Minor skin wounds
- Mild discomfort

- Assist resident to a comfortable place (using hoist/manual handling aid
- Observe for 24 hours (observation/neurology) per facility protocol
- Treat minor wounds
- Post fall review GP/NP
- Complete facility post-fall protocols/incident forms

Major injury:
- Airway or breathing problems
- Loss of consciousness or unresponsive
- Acute confusion
- Suspected head injury to resident taking anti-coagulant (warfarin/dabigatran)
- Head injury or trauma
- Pain in limbs or chest
- Bleeding or extensive bruising

Do not move the resident
(except for resuscitation)

Call 111 for ambulance

Inform relatives and record the discussion

Complete facility post-fall protocols/incident forms

Observation: temperature, SPO2, pulse, respiration rate, sitting and standing BP

Neurology assessment: pupils equal and reactive, no changes in Glasgow Coma Scale

Resident alert, no new confusion

If any changes causing concern, phone GP/NP or 111

Glasgow Coma Scale

Eye Opening (E)	Verbal Response (V)	Motor Response (M)
4=Spontaneous	5=Normal conversation	6=Normal
3=To voice	4=Disoriented conversation	5=Localises to pain
2= To pain	3=Words, but not coherent	4=Withdraws to pain
1=None	2=No words, only sounds	3=Decorticate posture
	1=None	2=Decerebrate
		1=None
		Total = E+V+M

Post-fall assessment

Name of resident			
Date and time of fall			
Place of residence			
Name and signature of person assessing		Time and date of assessment	

		√ Tick and sign
Level of consciousness	Responsive as normal	
	Less responsive than usual - Glasgow Coma Scale	
	Unresponsive or unconscious (call 111) - Glasgow Coma Scale	
Pain or discomfort	No evidence of pain or discomfort	
	Showing signs of pain or complaining of pain	
Where is the pain?		
Injury or wounds	No evidence of injury, bleeding or wounds	
	Evidence of swelling, bruising, bleeding or deformity/shortening/rotation of limb	
Where is the injury or wound/s?		
Movement and mobility	Able to move all limbs as normal for the resident	
	Able to move limbs but has pain on movement	
	Unable to move limbs as normal for the resident or there is a major change in mobility	

Observations including neurological observations							
Pulse	**Resp Rate**	**Sitting BP**	**Standing BP**	**Blood sugar**	**SPO2**	**Neuro-Obs chart**	Tick & sign

Conclusion of assessment		Tick and sign
No apparent injury or minor injury ☐	Give first aid treatment	
	Commence observations (use post falls assessment chart and complete body map)	
	Inform relatives	
	Complete an incident form	
Major injury ☐	Give first aid / resuscitate and **call 111** **DO NOT MOVE THE RESIDENT**	
	Commence observations (use post falls assessment chart and complete body map)	
	Inform relatives	
	Complete an incident form	

Medication drill-down

Review contributing factors related to medication

Medication

General contributing factors

- New medications?
- Changes? (dose, time etc)
- When was last dose given?
- Has there been a medical error in the past 24 hours?

Other medical related contributing factors to consider

Side effects	Interactions
Did resident exhibit signs or complaint of: • Weakness • Acute delirium • Clammy skin • Gait disturbance • Dehydration • Impaired vision • Agitation • Impulsiveness • Resistance to care	Review for • Drug-drug • Drug-food • Drug-supplement • Drug-herb

Medication class

Diuretics
- Edema (lower extremity)
- Lung status (CHF)
- Change in urgency & void
- Change in fluid (72 hours)

Antihypertensives / cardiovascular
- Baseline blood pressure
- Postural blood pressure
- Vital signs including O2 sats
- Skin – is it cold or clammy

Hypo / hyperglycaemic
- Time of last insulin/oral
- Agent dose
- CBG results
- Last p.o. intake (time and quantity)
- Skin – is it cold and clammy

Laxatives
Prescribed and given?

Antipsychotics only
- Check most recent AIMS
- Consider EPS (involuntary movement)

Antibiotics
- Diagnosis for use (UTI, pneumonia)

Psychopharmacology
- Antianxiety
- Antidepressant
- Antipsychotic
- Hypnotic

Narcotics/analgesics
Pain level
- At last dose
- At time of fall

Consult pharmacist or physician (as appropriate)

If immediate risk identified take steps to resident's safety and prevent re occurance