



Addressing risk factors in an individualised care plan

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III How you can use **Topic 4**

Use Topic 4 as:

- an information resource that explains the evidence and reasons for assessing an older person's risk factors for falling
- a 60-minute professional development exercise (see <u>60 minutes of professional development</u> in this resource).



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Key messages in Topic 4

- Screening for falls, assessing risk factors and making a care plan can be done in the community, residential care or in hospital.
- An individualised care plan for each older person considers their personal circumstances, then tailors the interventions needed to respond to the identified risk factors they face.
- Taking actions that are right for each individual can reduce the rate of falls in hospitals and long-term care facilities and in the community.
- Remember, the overall falls prevention message is **ask**, **assess** and **act**.
- Risk assessment is meaningless without action.

📚 What **Topic 4** covers

'Do something about risk factors, don't just count them' is a call to action for falls prevention that's both obvious and based on evidence. The statement applies to older people in any care setting. Topic 4 covers the importance of using an individualised care plan for each older person when considering and responding to the risk factors for them falling. **Topic 3** explains how to assess risk factors. Topic 3 and 4 should be read together.

Because older people fall for a variety of reasons, we need to adopt a truly interdisciplinary and individualised approach. Topic 4 explains why we should do so, and how we can achieve such an approach.

When reading Topic 4, it will be important to understand the difference between multifactorial interventions and multiple programme components before using this evidence to inform practice:

- *Multifactorial interventions* are a set of combined actions based on a systematic individualised assessment of the older person, to ensure their particular risks are considered and addressed.
- *Multiple programme components* are a set of actions standardised for all older people, and so cannot ensure older people identified as 'high risk' will have their particular risks addressed (Blake and Weststrate 2013; Cameron et al 2010; Ganz et al 2013; Hempel et al 2013; Lamb et al 2011).

In New Zealand, risk assessment and care planning are now embedded as processes of care measured by quality and safety markers.

Evidence for individualised multifactorial and multicomponent approaches to care planning

Older inpatients usually have several risk factors. This means they may need a number of interventions (ie, multifactorial interventions) to reduce their risk of falling or injury.

The Cochrane Collaboration has published a number of reviews evaluating interventions for falls in care facilities and hospitals (Cameron et al 2018), multifactorial and multicomponent interventions in the community (Hopewell et al 2018), and exercise in the community (Sherrington et al 2019).

- Strength and balance exercise programmes in the community are effective for reducing the rate of falls and number of fallers in older populations both those identified as at high risk and those not identified as at high risk (strong evidence). The overall reduction in falls is 23 percent, see Topic 9 for more detail on exercise for falls.
- Multiple component interventions in the community (exercise and another component, commonly education or home-hazard assessment) reduce the rate (by 26 percent) and risk (by 18 percent) of falls (moderate-quality evidence).

WHAT TOPIC 4 COVERS continued

- **Multifactorial interventions in the community** following assessment of an individual's risk profile (eg, exercise, environment or assistive technologies, medication review and psychological interventions) reduce an individual's number of falls (by 23 percent) (low-quality evidence).
- **Multifactorial interventions in hospitals** (tailored to individual patients) may reduce the rate of falls mainly in sub-acute care settings (low-quality evidence).
- Vitamin D supplementation in care facilities reduces the rate of falls (by 28 percent) for those who are vitamin D deficient (moderate-quality evidence).



What an individualised care plan means

An individualised care plan is a plan that assesses the risk factors for each older person, then takes appropriate actions. Achieving this requires a streamlined, multidisciplinary approach.

Use risk factors to assess what actions are appropriate for each older person

'Do something about risk factors, don't just count them' is a call to action for falls prevention that's both obvious and based on evidence. The statement applies to older people in any care setting.

Evidence for the effectiveness of multifactorial interventions directs us to **systematically check for falls-related risk factors** that we can do something about (such as treatment, modification or better management), and to make meaningful plans for each risk factor (Ganz et al 2013; Healey and Darowski 2012; Oliver and Healey 2009; Schwendimann et al 2006).

When planning care, no 'one size fits all' (Rose 2008). Intervention and support strategies must be tailored to each older person's pre-existing risk profile, preferences and capabilities, and integrated with care for any known medical problems (Ganz et al 2013).

In any setting, **practices that make the environment and care safer for all older people** are essential to preventing falls.

As noted in Topic 3, the <u>risk factors for falls</u> are varied. Also, older people have unique risk profiles with different combinations of factors. This means we must ensure risk factors aren't missed and are reviewed through a 'falls prevention lens' (Ganz et al 2013; Miake-Lye et al 2013; Oliver 2008). Frameworks or checklists that cover common risk factors are useful ways to support a consistent and standardised approach to assessing risk.

The **ask**, **assess**, **act pocketcard** offers a structured way to ensure key risk factors and other elements are covered.

L PIO 1			Fold 1			
A Many	SK older people who have fallen don't talk about it.	Ch	ASSESS eck with the older person and their family/whānau out what they see as problems and risks.	3	Talk with the older person and their family/whānau about what they think will be most helpful.	
			ess falls risk factors related to:		Refer for specialist input as needed. Put interventions and supports in place to:	
1	Have you slipped, tripped or fallen in the last year?		Address identified risk factors with specific actions			
_	year:	_	Balance, strength and gait	Þ	Enhance balance and strength	
	Can you get out of a chair without using your hands?	ICA	Mobility	•	Improve or assist mobility	
2		HYSICAL	Muscle strength (especially lower limb)	Þ	Prescribe vitamin D supplements if at risk of deficiency	
_		ā	Feet and/or shoes	Þ	Address foot problems and ensure safe footwear	
_	3 Have you avoided some activities because you might lose your balance? Do you worry about falling?		Medicines (especially psychotropics)	Þ	Review and optimise medicine use	
3		RLYING	Dizziness or postural hypotension	Þ	Manage and monitor hypotension	
			Cognition	•	Put in place measures for orienting the person and reducing delirium risk	
		NDR	Vision	Þ	Optimise vision	
	Looking and listening as a skilled	2	Continence problems	Þ	Manage continence problems	
	health professional What do you		Any other health problems that may increase the risk of falling	Þ	Address other health problems	
	see? What is not being said?		Home safety	Þ	Optimise home safety	

Use a multidisciplinary approach to care planning and action

Because older people fall for a variety of reasons, we need to adopt a truly interdisciplinary and individualised approach. People who can provide input into an individualised care plan include physiotherapists, podiatrists, pharmacists, nurses, occupational therapists, health care assistants and nutritionists.

When an older person has a fall, we know that in practice staff don't always assess that older person in the way recommended by guidelines (Tirrell et al 2015). To reduce the risk of further falls a multidisciplinary approach with referrals to health care providers with special expertise is often needed.

For example, a fall may be an opportunity to refer the older person for a comprehensive orthogeriatric assessment. We know that involving an orthogeriatrician after an older person has fractured their hip can help to decrease their risk of death (Neuburger et al 2016; Eamer et al 2018). The **Australian and New Zealand Guideline for Hip Fracture Care** recommends regular orthogeriatric assessment.

Consider referring the older person to an occupational therapist who can assess how safe their home is, and identify any safety modifications needed.

A referral to a fracture liaison service after a fall-related fracture will, among other things, provide osteoporosis assessment and management, and help to prevent the older person suffering a secondary fracture (Osteoporosis New Zealand 2014).

A multidisciplinary approach creates opportunities to 'red flag' any risk to others in the team that the team needs to manage proactively. Robust cross-referral mechanisms are also needed, such as between the care pathways for falls and fractures, and the care pathways for dementia.



What really matters is critical thinking and acting on risk factors

A multifactorial approach includes various components, such as using critical thinking and clinical judgement, acting on the older person's risk factors, documenting and communicating an older person's information, and partnering with the older person's family/whānau. This section also lists some risk factors for falls and suggests possible intervention strategies for mitigating those risks.

Use critical thinking and clinical judgement

The value of basing your actions on skilled clinical reasoning is confirmed by findings that clinical observation and judgement alone often matches or outperforms the prediction tools used for risks of falls (Aranda-Gallardo et al 2013; da Costa et al 2012).

One older person admitted for assessment for dementia and weight loss, and another older person rehabilitating after a hip replacement following a fall at home may both be considered to have a 'risk' of falling, but they have very different risk profiles. This is one reason why we cannot create an individualised care plan for an older person without using our critical thinking and clinical judgement, and discussion with the older person and their family/whānau.

Act on the older person's risk factors, document that information and communicate with other team members

Implementing an individualsed care plan is one of the best ways to help the older person. Once risk factors for falls are identified, action must follow. As for auditing whether the older person had appropriate, individualised interventions to respond to their risk factors, the general rule is, 'if it wasn't documented, it probably wasn't done'.

Handing over between care staff is also critical as the older person moves around the hospital or care home, and between departments, or back into primary care and the community. If the older person and their family/ whānau participate in related discussions, they can take appropriate responsibility and request any help they need in caring for the older person.

Partner with older people and families/whānau to prevent falls

About 50 percent of older people who fall have already fallen once (Oliver et al 2008). Close caring for older people and understanding who they are, their goals and motivations is important, as is involving family who know older people best.

Many older people and families/whānau are capable and open to using **general information that helps them be proactive about their own safety**. Educating older people (for example, about what to expect after an operation if they've been admitted to hospital) empowers them to manage risks they might otherwise not have anticipated (Jones 2012). Reducing older person's risks of falling is something we do with them, not to them. 5

When offering an individualised care plan to prevent falls, we need to:

- consider the older person's preferences and feelings
- mitigate the older person's loss of identity they feel in having to rely on others
- mitigate fears related to the older person's fall
- consider the daily routines of the older person.

Some older people may feel over-confident or wish to be independent. So it's important to start a positive conversation about mitigating risk-taking behaviour. Such activities may include simple activities of daily life (for instance, needing to use the toilet) (Hill et al 2016). Also remember that access to interventions (for example, community strength and balance exercise programmes) is influenced by factors such as cost, distance, availability of transport and parking, and weather conditions. Finally, social and cultural beliefs will influence attitudes to various interventions (University of York: Centre for Reviews and Dissemination 2014b).

It's also important to partner with the older person and their family/whānau when creating their plan for care after a fall. Reducing the risk of falling is something we do *with* the older person, not *to* them.

What really matters in preventing falls is to identify the older older person's risk factors and take appropriate action. To repeat the words of Frances Healey, 'The scale of the challenge can perhaps best be faced by setting aside the question, "How do we prevent older people from falling?" and instead repeatedly asking ourselves, "How can I prevent this older person from falling?" (Healey 2011).

Examples of interventions tailored to specific risk factors

Risk identified	Possible mitigation
Balance and gait problems	Recommend the older person does balance and strength exercises either in a community group or at home (see Topic 9)
	Refer the older person to a physiotherapist for them to:
	assess gait and balance
	introduce one-on-one progressive gait and balance retraining
	introduce strengthening exercises
	advise and teach how to use assistive devices correctly.
Mobility	Consider specific moving and handling measures for the older person, for example, signals that indicate the level of support the older person needs to mobilise.

WHAT REALLY MATTERS IS CRITICAL THINKING AND ACTING ON RISK FACTORS continued

Risk identified	Possible mitigation
Muscle weakness	Consider the older person's diet and protein intake as well, and consider any opportunity for a nutrition or dietetics referral. Diet and protein are particularly important for frail older people, even though the impact on falls is unclear (Bauer et al 2013; Hubbard et al 2015; Rizzoli et al 2014). Nutritional supplementation for malnourished older adults recently discharged from hospital significantly reduced the proportion of fallers (Naseri et al 2018).
	Consider the need for vitamin D supplementation (see information box on page 8).
	Refer the older person for a Green Prescription or to a falls prevention programme. Consider referring older people aged over 75 to a home-based programme.
Feet and/or shoes	 Refer the older person to a podiatrist for them to: assess and treat the older person's foot problems prescribe corrective footwear or orthotics if needed. Multifaceted podiatry interventions and multifactorial interventions involving referral to podiatry significantly reduce the falls rate (Wylie et al 2018).
Medicines (especially psychotropics)	Review prescribed medication regularly regarding indication, effectiveness and side effects. Discuss the use of psychotropic medicines with the older person, and consider withdrawal under regular monitoring if it is not felt there is clear benefit. Dose reduction may reduce side effects and risk if a medication is unable to be fully discontinued (Bjerre et al 2018).
	Monitor the older person as they make recommended changes to their medication. See Topic 8 .
Postural hypotension (that may cause	Discuss postural hypotension with the older person and give them information about what it is and what it means for them.
dizziness)	Recommend an older person changes their medicine to reduce hypotension.
	Monitor the older person as they make recommended changes to help them avoid or reduce instances of postural hypotension.
Delirium	Diagnosing cognitive impairment is important and baseline cognitive assessment will help identify changes in cognition such as with delirium or after a head injury.
	Use various intervention strategies to prevent delirium. Exercises to make the older person more mobile are key components of such strategies.
	Delirium is the leading contributor to falls in hospital. The use of delirium interventions are effective in reducing new onset delirium among older inpatients and can reduce the risk of having a fall by 62 percent.
	These multicomponent and non-pharmacological inventions include, for example, reorientation, early mobilisation, promotion of sleep, maintenance of adequate hydration and nutrition, and provision of vision and hearing adaptations (Hshieh et al 2015; Martinez et al 2012).
	A summary of appropriate care for older people with cognitive impairment in hospital , covering both delirium and dementia gives comprehensive advice and three case studies in just three pages (Caplan et al 2016).

Risk identified	Possible mitigation
Dementia	Refer the older person to a specialist if appropriate.
Dementia	Cognitive impairment needs to be diagnosed, and close care provided with dignity. Ask the older person's family/whānau what works for them.
	Although older people with dementia are hospitalised and injured more often than other people, and have longer recovery times, many of them respond to standard interventions such as physiotherapy and strength and balance exercise programmes. This is particularly so where a caregiver is able to support and help them with exercises and where information is presented in appropriate ways (Meyer et al 2015).
	 In the community, strength and balance exercises, home safety assessment and modifications, and optimising nutrition show some promise particularly if cohabiting spouses are involved and the intervention is sustained over the long term.
	 In long-term care, evidence exists to support the use of hip protectors and a function-focused approach to care that aims to enhance activity levels. In hospitals, research literature recommends individual risk assessment and care planning, and a person-centred care with dignity approach that includes close observation and assistance in achieving the patient's goals. Cognitive assessment is recommended to monitor for delirium and consideration should be given to appropriate referrals to facilitate rehabilitation and secondary prevention. A bone health assessment and treatment for osteoporosis may be appropriate and guidance on the diagnosis and management of osteoporosis in New
	 Zealand should be followed. All interventions should be tailored to the individual based on an understanding of their functional cognition, with use of appropriate support materials and engagement with family, whānau and caregivers. For more information see the Health Quality & Safety Commission's review of interventions for falls in those with cognitive impairment.
Vision	 Refer the older person to an optometrist or ophthalmologist for them to: identify and treat any medical conditions contributing to the older person's vision problems identify and treat any problems with visual acuity and contrast sensitivity. An Australian cohort study reported a 33 percent reduction in falls per person year for those having first-eye cataract surgery (Palagyi et al 2017).
Incontinence	Refer the older person to a specialist if appropriate.
Pain	Consider if the older person's pain is well managed or whether an adjustment in medication is needed. Or refer the older person to a chronic pain clinic if this may be beneficial.
Hypoglycaemia	Consider adjusting the insulin regime of an older person with diabetes. Taking an action is important as hypoglycaemia is associated with falls.
	raking an action is important as hypoglycaethia is associated with fails.

WHAT REALLY MATTERS IS CRITICAL THINKING AND ACTING ON RISK FACTORS continued

Risk identified	Possible mitigation
Oral anticoagulants	Balance the benefits and risks of oral anticoagulants. If an older person does fall, oral anticoagulants can double the risk of death.
	Importantly, the risk of eventual death from a head injury due to a fall exceeds the annualised stroke risk for older people assessed as at lower risk of stroke (CHA2DS2-VASc scores of 0 to 2 (Inui et al 2014).
Safety at home	 Refer older people at higher risk of falling to an occupational therapist for them to: assess the safety of the home and the older person's ability to function safely there arrange rails and other aids to be installed if needed.
	See Topic 5.



Vitamin D is essential for good health

It is important to maintain adequate vitamin D levels all year round for bone health (Ministry of Health and Cancer Society of New Zealand 2012).

For those who are deficient in vitamin D and unable to increase their exposure to direct sunlight, supplements can be prescribed.

Vitamin D deficiency can be assumed for the following groups and a blood test is not necessary: those older people who are housebound, completely cover their skin or have very dark skin. Many residents of aged residential care facilities may meet these criteria (Best Practice Advocacy Centre NZ 2011; 2016). Vitamin D testing is only justified to answer a specific diagnostic question. Routine supplementation for the general population is not recommended as it does not reduce falls or fractures (Bolland et al 2015; Reid et al 2014; Bolland et al 2018). If vitamin D is prescribed, daily dosing is preferred as high-dose monthly administration is associated with increased harms.



How to support care planning individualised to each older person

Having an overall plan of care individualised to the older person, that includes not only standardised interventions that might benefit everybody, but also interventions addressing specific risk factors the older person has, ensures consistency, coordination and continuity between team members. The plan is a critical form of communication that captures multidisciplinary perspectives and shared understandings of the older person's problem(s), the goals of care and the interventions designed to reach those goals. The plan also lets us evaluate the effectiveness of interventions (Blake and Weststrate 2013).

Some essential elements of care apply to all older people. **Topic 5 discusses how to ensure safe care and a safe environment**, for example, through appropriate adjustment of beds to the right height, and keeping patient bells, personal gear and mobility equipment within reach.

Use care plans in hospitals

Some DHBs have separate care plans to manage the risk of falls; other DHBs have this incorporated in the admission to discharge plan. **Signalling systems** and 'patient at a glance' boards can help. Either way, interventions focused on the risk of falls will be integrated with other goals, not least because many risk factors require management regardless, or are already being addressed in the process of managing underlying conditions.

Use care pathways to integrate primary and secondary care

Given the short length of stay in acute wards, it's possible that some interventions will not be completed in hospital. Planning individualised to each older person carries through in the referrals for specialist input and handover to the older person's primary or residential care team. For instance, an older person whose painful feet need more care may be referred to a podiatrist after discharge. Care pathways, supported discharge processes and fracture liaison services can help older people and staff navigate an integrated system. Care pathways must be evidence-based and interventions in the community such as strength and balance exercise and home environment assessment and safety modifications have some of the strongest evidence for falls prevention behind them.

Educate older people, families/whānau and carers

The importance of individualised education programmes for older people, their family/whānau and carers needs to be stressed. Education combined with training and feedback to staff reduced the rates of falls and injurious falls in a large randomised controlled trial (n = 3606). Older people given individualised education in rehabilitation hospital units had approximately 40 percent fewer falls than control older people. The individualised education was based on principles of changes in health behaviour and was delivered by a trained health professional. The education was in addition to usual care (Hill et al 2015). Consumer health representatives in New Zealand emphasise the importance of explaining to older people why it is important to prevent falls, and how the interventions help. Evidence suggests that interventions should be presented with understanding and respect. Finally, given the lack of high-quality evidence for various falls prevention strategies in hospitals and long-term care facilities, clinical judgement and consumer preferences must remain important.



What consistent approaches are available for falls risk assessment and care planning?

Falls prevention experts understand that, on a practical level, 'multifactorial assessment and intervention will be more consistently delivered if standard documentation formats prompt staff to consider key risk factors' (Healey and Darowski 2012). This advice applies in all care settings.

In hospitals, **a review of risk assessment and care planning processes in New Zealand DHBs** (Blake and Weststrate 2013) noted variation in the quality and versions of the tools in use. This resulted in the development of **a combined risk assessment tool** that includes falls and prompts care planning. It is hosted on TrendCare, an acuity tool used by the majority of public and some private hospitals in New Zealand (Blake 2013).

In residential care settings **the interRAI assessment tool** can support a consistent approach to multifactorial risk assessment and individualised care planning.

In the community primary care providers can make use of the **Stay Independent Falls Prevention Toolkit** for clinicians.

The previous national programme Reducing Harm from Falls, supported by a national patient safety campaign, developed these risk assessment and care planning frameworks for DHBs and other providers to implement locally and regionally in ways that best suit them.

A degree of national consistency may result if providers reference these frameworks within their own tools, or develop tools based on them (Blake 2013). •



60 MINUTES OF PROFESSIONAL DEVELOPMENT

This learning activity equals 60 minutes of your professional development.

You can add it to the personal professional record you keep to check off your competence framework requirements.

To complete this learning activity, first read the whole topic and the three required readings, then assess your learning with the **10 self-test questions**.

Learning objectives

Reading and reflecting on Topic 4 and the materials in this teaching and learning package will enable you to:

- review the reasons for multifactorial assessment and individualised interventions to reduce harm from falls
- choose a standardised approach to developing an individualised care plan for falls risks
- discuss how a care plan for an older person relates to managing their risk of falling
- reflect on the capabilities of you and your team for selecting individualised interventions for falls when someone is identified as having risk factors for falling.

Teaching and learning package

Gather up the resources you'll need. Use the hyperlinks in this topic, or download or print the reference material.

Required reading

These two readings will help you form evidence-informed perspectives about how to respond to identified falls risks in an individualised care plan.

- 1. Healey F. 2011. Implementing a Fall Prevention Program via webpage.
- 2. A <u>State of the Art Review</u> in *British Medical Journal* 2016 gives a good, short summary of falls risk assessment and care planning in the community (starts on page 2).

ADDITIONAL RESOURCES

Preventing Falls in Hospitals: A Toolkit for Improving Quality of Care (2013) from the Agency for Healthcare Research and Quality is **here**.

Pocketcard: ask assess act resource for health professionals

Falls Risk Assessment Tools and Care Plans in New Zealand DHB Hospitals. A Review and Discussion Document

Falls Risk Assessment in TrendCare

Questions and answers about quality and safety markers (QSMs)

10 QUESTIONS

4

TOPIC Professional development: questions to test your knowledge



12

ANSWER these questions to check you have retained the knowledge reviewed in this topic and readings

1	Working with the older person and their family/whānau on an individualised care plan to address their risk factors for falling is appropriate in which care settings? in hospital in the community in age related residential care in all of the above settings	
2	The proportion of older inpatients who fall and have had a prior fall is about: 25 percent 50 percent 75 percent	
3	Overall, the material presented in this article makes the case for: a consistent approach to care planning using standard interventions an ad hoc approach to care planning using individualised interventions a consistent approach to care planning using individualised interventions an ad hoc approach to care planning using standard interventions.	
A	SSESS the processes you used for risk assessment and planning care in your unit	
4	Review the reading Questions and answers about the QSMs , and look at the baseline QSM audit results for the DHB in your area. What are the likely explanations for the baseline result?	
5	Does your care setting use separate or integrated documents for falls risk assessment and care planning? separate integrated What do you think are the advantages and disadvantages of the approach used in your unit? The advantages are: The disadvantages are:	
6	Describe two or three of the ways your care setting ensures a multidisciplinary approach is taken to falls risk assessment and care planning. 1. 2. 3.	
7	Describe three specific things you typically do to involve older people and their families/whānau to reduce the risk of an older person falling: 1. 2. 3.	
Out	tline three learnings or insights and how you will APPLY them in your practice	
8	My first learning/insight is:	

-		
	I will apply it in practice by:	
9	My second learning/insight is:	
	I will apply it in practice by:	
10	My third learning/insight is:	
	I will apply it in practice by:	

LEARNER NAME:	PROFESSION:		DESIGNATION:		
DATE:	REGISTRATION ID:		WORKPLACE:		
Validation that learner has completed this professional development activity Signature:					
NAME:	PROFESSION:		CONTACT:		

WORKPLACE:

DATE:

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