Falls Risk for Older People – Community setting (FROP-Com): Guidelines

Working together to prevent falls

Risk assessment guidelines developed by: National Ageing Research Institute

This assessment tool was developed initially for use with hospitalised older people (the Falls Risk for Hospitalised Older People – the FRHOP). The FRHOP has been shown to have high retest and inter-rater reliability, and to have moderate ability to predict falls in older people in hospital (Australasian Journal of Podiatric Medicine, 2004. 99-108). The tool has been expanded and modified to become the FROP-Com for use in the community setting, and consists of 13 risk factors being rated, most on a graded 0-3 scale. Information has been published on results of the FROP-Com between a group of older people with high falls risk (presenting to an emergency department after a fall) compared to age and gender matched non fallers (Disability and Rehabilitation, 2005. 27:499-506). The tool has demonstrated good reliability and has a moderate capacity to predict falls. (Age and Ageing, 2008.37(6): 634-9).

The guidelines provide definitions and detail to support the assessment, and suggest management options if a specific risk factor is identified.

The FROP-Com has been used in several research studies (see reference list below) and is currently being used in many clinical settings around the world.

If you wish to use the FROP-Com please contact NARI at info@nari.unimelb.edu.au to request the most recent version.

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References:

RELIABILITY AND VALIDITY STUDIES - FRHOP AND FROP-Com

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OTHER STUDIES

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Williams S, Brand C, Hill K, Hunt S, Moran H. 2010. Feasibility and Outcomes of a Home-Based Exercise Program on Improving Balance and Gait Stability in Women With Lower-Limb Osteoarthritis or Rheumatoid Arthritis:A Pilot Study." Archives of Physical Medicine and Rehabilitation 91(1): 106-114.

Falls Risk for Older People – Community setting (FROP-Com): Guidelines

These Guidelines consist of two sections – the first section describes definitions and scoring options for the FROP-Com; the second section lists possible interventions to consider if a risk factor has been identified.

Questions	Scoring guidelines
Falls history	
Qn. 1	Use the WHO definition of a fall - "An event which results in coming to rest inadvertently on the ground or lower level,". If presenting with a fall to a service, that recent fall should be included. Include the terms "slips", "trips", "faints" and "any other accidents" to elicit a complete falls history. o *Score as 0* if no falls in the past 12 months o *Score as 1* if 1 fall in the past 12 months o *Score as 2* if 2 falls in the past 12 months o *Score as 3* if 3 or more falls in the past 12 months
Qn. 2	*In the past 12 months* o *Score as 0 if* has sustained no injuries o *Score as 1 if* has sustained a minor injury which did not require medical attention regardless of whether they sought it or not (injuries such as small bruises, grazes) o *Score as 2 if* has sustained an injury requiring medical attention regardless of whether they sought it or not (injuries such as large bruises, large grazes, sprains, strains, cuts, injuries requiring medical clearance of fracture o *Score as 3 if* has sustained a fracture, dislocation, concussion, severe strain or strain or cut over 10 cm in length
Medications	
Qn. 5	Total the number of prescribed medications, including tablets and inhalers. Do not include topical agents, eye drops and vitamin supplements.
Qn. 6	Add together the number of categories ticked. For category of *centrally acting pain killers* do not include simple combination analgesics (e.g. panadeine)

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Medical conditions	
Qn. 7	*Tick if medically diagnosed with:* o *Arthritis:* and the arthritis is in the lower limbs, back, neck or moderate / severe in the upper limb o *Respiratory condition:* e.g. asthma, Chronic Obstructive Pulmonary Disease, Pulmonary Fibrosis o *Parkinson's Disease* o *Diabetes* o *Dementia* o *Peripheral neuropathy:* if in the lower limbs o *Cardiac condition:* e.g. Ischaemic Heart Disease, angina, cardiac failure, arrhythmia, CABG's if remaining on cardiac medications or ongoing medical problems (e.g. arrythmia, shortness of breath) o *Stroke:* any history of (not including Transient Ischaemic Attack) o *Other neurological conditions:* e.g. brain tumour, Multiple Sclerosis, spinal neurological injury, injury to peripheral nerve o *Lower limb amputation:* of leg, partial foot or big toe o *Osteoporosis* o *Vestibular Disorder:* e.g. Menieres, BPPV, vestibular hypofunction o L*ower limb joint replacement* *Tick if self reported:* o *Other dizziness:* e.g. on standing, walking, turning, turning the head, rolling over in bed, in the past year. o *Back pain:* in the last year, affecting function, balance, mobility (including endurance), if diagnosed as arthritic score as arthritis.
Sensory loss	
Qn. 8	Vision: *Score as 1 if, on questioning, the person reports (while wearing their glasses if applicable):* o trouble seeing objects clearly e.g. the television, cracks in the footpath (visual acuity) o trouble judging distances e.g. going down stairs, distance of cars away (depth perception) (question about this particularly if wearing bifocals) o trouble seeing in half light e.g. seeing large objects, steps, stairs at dusk (contrast sensitivity) o has been diagnosed with eye problems in the past or has glasses and has not had their eyes checked in the previous 2 years. Somatosensory: *Score as 1 if on questioning, the person reports* o Loss of sensation (numbness or pins and needles) in the feet or legs most of the time. Do not score as 1 if they report only numbness occurring intermittently (e.g. with cold feet).
Feet and footwear	
Qn. 9	*Score as 1 if on observation and/or self report the person has any of the following:* o painful feet including painful corns, arthritis o bunions o gout o swollen ankles / feet o toe deformities (hammer, mallet and claw toes) o fallen arches

Qn. 10	Examine the person's most commonly worn indoor and outdoor footwear if doing a home visit. If in clinic, review current footwear and ask the person to describe their most commonly worn footwear if different to the footwear being worn. *Score as 1 if any of the following problems are present on either pair of shoes:* o poor fit o poor grip on soles

	o hard inflexible soles or very thick soles (over 1.5 cm in height) o heels greater than 2cm high / less than 3 cm wide o flexible heel counter (moon shaped cup at the back of the heel) o no fastening mechanism (ie lace, velcro or buckle) o slippers or other inappropriate footwear
Cognitive status	
Qn. 11	*Tick only if fully correct, no half points* o Can make questions culturally appropriate for those of Culturally and Linguistically Diverse backgrounds. Can substitute: ➢ "current prime minister" with current president of country of origin ➢ "years of First World War" with date in history relevant to country of origin o For those born in and after 1930 substitute Second World War for First World War o If doing a home visit can substitute: ➢ "current location" with name of closest hospital ➢ "recognition of two persons" as General Practitioner's name and your name.
Continence	
Qn. 12	*Score as 1 if the person reports any of the following:* o experiencing urinary (urge or stress) or faecal incontinence o needing to rush to the toilet to avoid incontinence o limiting social/physical activity due to fears of incontinence
Qn. 13	*Score as 1 if the person reports:* o needing to go the toilet three or more times per night on most nights *Score as 0 if the person reports:* o Does need to go to the toilet this often but uses a bottle o Has a catheter
Nutrition	
Qn. 14	o *Score as 0 if* the person reports no change o *Score as 1 if* the person reports a small decrease in appetite, digestive or chewing problems but still eating well o *Score as 2 if* the person reports any of the above problems which is starting to affect their intake (approximately less than 1/3 of previous intake) o *Score as 3 if* they have dropped their oral intake moderately (approximately more than 1/3 of previous intake)
Qn. 15	o *Score as 0 if* the person reports no change o *Score as 1 if* less than 1 kg or the person is unsure o *Score as 2 if* 1 – 3 kg o *Score as 3 if* greater than 3 kg *Score as 0* if weight was lost on medical advice

Qn. 16	o *Score as 0 if* the person reports no alcoholic drinks in past week o *Score as 1 if* in the past week the person has consumed one to three standard glasses of alcohol o *Score as 2 if* consumed 4 – 10 standard glasses of alcohol o *Score as 3 if* consumed 11+ standard glasses
Environment	
Qn. 17	Only rate if undertaking a home visit. Assess the home and garden and also ask the person about: o any difficulty /unsteadiness / need to hold onto the doors or walls when on steps / stairs or getting in / out of the shower o any trouble getting on / off the toilet / chairs / bed o any near slips or trips on surfaces o any trouble navigating the house at night Consider the environmental risk in relation to the person's function and mobility. o *Score as 0 if* the home /garden environment is safe o *Score as 1 if* the hazards present could be addressed through education and improvement e.g. unsafe floor coverings, small amount of clutter, furniture or cords in traffic ways, inadequate lighting at night, decreased contrasts between steps, lack of non slip surface (mat) in shower, unsafe garden paths, pets underfoot o *Score as 2 if* the hazards present do require formal assessment and intervention from an Occupational Therapist e.g. rails in the bathroom or stairs, unsafe stairs, a need for a ramp, a significant problem with any of the problems outlined in *Score as 1* o *Score as 3 if* many (approximately 3 or more) hazards present require formal assessment and intervention from an Occupational Therapist
Functional behaviour	
Qn. 18	Observe the person during your assessment and ask about their current activities. Compare to their abilities, mobility and balance. o *Score as 0 if* the person is consistently aware of current abilities / seeks appropriate assistance o *Score as 1 if* the person is generally aware of current abilities but **occasionally** takes risks e.g. ➢ occasionally walks or performs functional tasks without the required aid, ➢ occasionally walks in the community or on uneven surfaces when would be unsafe, ➢ occasionally performs tasks beyond their capacity o *Score as 2 if* the person limits their activity due to fear but appears safe to do more activities e.g. walking in the community o *Score as 3 if* the person over-estimates abilities e.g. refuses appropriate services, climbs ladders / furniture. If the person **frequently** takes risks such as those in the first category of this question

Function	
Qn. 19	Ask the person about their ability to shower, dress and toilet prior to the most recent fall (Note: if no fall in last 12 months, rate current function) o *Score as 0 if* the person is completely independent o *Score as 1 if* the person requires somebody to be present to perform any personal care task but does not require hands on assistance o *Score as 2 if* the person requires hands on assistance to perform one or more of the personal care tasks o *Score as 3 if* the person requires assistance with all of the personal care tasks
Qn. 20	Ask the person if this has changed since the previous fall (do not rate if no falls in last 12 months) o *Score as 0 if* no change o *Score as 1 if* a change in any function, either due to loss of ability, confidence or injury
Qn. 21	Ask the person about their ability to shop, perform housework, laundry and cooking prior to the most recent fall (Note: if no fall in last 12 months, rate current function) o *Score as 0 if* the person is completely independent o *Score as 1 if* the person requires another person to be present but does not require assistance e.g. shopping with someone else o *Score as 2 if* the person requires assistance on most occasions with one or more of the above tasks e.g. being driven to the shops, assistance with heavier housework o *Score as 3 if* the person requires assistance to perform all of the above tasks including smaller household tasks (e.g. making the bed – not changing the sheets, doing the dishes)
Qn. 22	Ask the person if this has changed since the previous fall (do not rate if no falls in last 12 months) o *Score as 0 if* no change o *Score as 1 if* a loss in one or more functions (e.g. unable to shop independently), either due to loss of ability, confidence or injury
Balance	
Qn. 23	Observe the person walking, turning, sitting and standing at their most unsafe (e.g. rate with usual gait aid, but if they use an aid only at times score without an aid). Do not base on self-report. o *Score as 0 if* no unsteadiness observed o *Score as 1 if* the person ➢ appears unsteady performing any of these tasks ➢ is making modifications to appear steady (e.g. an increased level of effort, a very wide base of support or is consistently touching the furniture) o *Score as 2 if* the person ➢ appears moderately unsteady walking and would require supervision to walk safely ➢ is making modifications and still appears unsteady o *Score as 3 if* the person is consistently or severely unsteady on walking or turning and would need hands on assistance.

Gait / Physical activity	
Qn. 24	Observe the person walking and turning. If unable to walk indoors assess transfers. o *Score as 0 if* independent, no gait aid needed o *Score as 1 if* independent with a gait aid and they consistently use it o *Score as 2 if* safe with supervision / physical assistance and they receive this o *Score as 3 if* unsafe or ➢ walks with a gait aid safely but does not consistently use it ➢ requires physical assistance / supervision but does not consistently receive it
Qn. 25	Observe the person walking and turning with their usual gait aid. If the person does not walk in the community score them with the mobility aid they use (wheelchair or scooters) as safe with aid, safe with assist or unsafe, as appropriate. o *Score as 0 if* independent, no gait aid needed *or if* the person does not go into the community at all o *Score as 1 if* independent with a gait aid and they consistently use it o *Score as 2 if* safe with supervision / physical assistance and they receive this in the community o *Score as 3 if* unsafe: ➢ walks with a gait aid safely but does not consistently use it ➢ requires physical assistance / supervision but does not consistently receive it ➢ uses a wheelchair or scooter unsafely or is only safe with this and does not consistently use it
Qn. 27	Ask the individual about their level of physical activity prior to the fall. (Note: if no fall in last 12 months, rate current function) Consider the person's health and abilities in relation to the amount of exercise performed e.g. for healthy older people walking around the supermarket 3 times a week would not be very active but for an older person experiencing some health problems this may be sufficient for a health benefit. o *Score as 0 if* very active (exercises 3 times or more per week) o *Score as 1 if* moderately active (exercises less than twice per week) o *Score as 2 if* not very active (rarely leaves house) o *Score as 3 if* inactive (rarely leaves one room of the house)
Qn. 28	Ask the person if this has changed since the previous fall (do not rate if no falls in last 12 months) o *Score as 0 if* no change o *Score as 1 if* a decrease in physical activity level, either due to loss of ability, confidence or injury

Suggested options for management of falls risk factors

Question	Score guidelines for referral	Suggested options for management
FROP-Com Questions		
History of falls / falls injuries		
Qn. 1 and 2 (Those falling in the past are three times more likely to fall in the future)	≥ 1 for Qn 1 or ≥ 2 on Qn 2	Inform the general practitioner Ensure management plan to address identified falls risk factors is implemented
Medications		
Qn. 5	0 - 2 3	No intervention Inform the general practitioner, particular if falls risk is increased based on this assessment
Qn. 6 (Stopping sedative medications has been found to be effective in reducing falls)	0 1 - 3	No intervention Refer to general practitioner seeking a review of the person's requirement for these medications
Medical conditions		
Qn. 7	0 - 1 2 – 3 Vestibular problem	No intervention Refer to general practitioner. May require specialist review Refer to vestibular physiotherapy if the person has a vestibular disorder able to be helped by vestibular physiotherapy.
Sensory loss: vision		
Qn 8a (Home modifications have been found to be effective in preventing falls in visually impaired older people) (Removing cataracts has been found to be effective in reducing falls)	0 1	No intervention Options • Refer to an optometrist if has not been reviewed in past 2 years or the person is reporting decreased vision • Provide information on home safety if referral to an Occupational therapist is not indicated • Refer to an occupational therapist if vision is impaired and there are potential home safety improvements • Refer to general practitioner for consideration of ➢ referral to Vision Australia (includes mobility training and aids for visually impaired) if vision is impaired and has not been previously referred ➢ referral to an opthamologist if requires specialist review (e.g. cataracts)

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Sensory loss: somatosensory		
Qn. 8b	0 1	No intervention Inform general practitioner Options: • Refer to a podiatrist for review of sensation, footwear and education on monitoring of foot health • Refer to a physiotherapist for exercises to enhance balance and strength if associated with a decrease in balance • Provide information on good footwear • Educate on importance of watching footsteps when walking and avoiding uneven ground
Feet and footwear		
Qn. 9	0 1	No intervention Inform general practitioner Options: • Refer to a podiatrist if the problem could be helped by a podiatrist and the person is not already seeing one for the problem • Provide information on good footwear
Qn. 10	0 1	No intervention Provide information about good footwear. Ask the patient to discuss this with their podiatrist if they are already seeing one.
Cognitive status		
Qn. 11 (80% increased risk of falling if cognitively impaired)	> 7 on AMTS ≤ 7 on AMTS	No intervention Refer to the general practitioner for consideration of referral to a Memory Clinic if memory problems have not been previously investigated.
Continence		
Qn. 12 (50% increased risk of falling if incontinent)	0 1	No intervention Refer to the general practitioner for review, and consideration of referral to a Continence Clinic Refer to an occupational therapist for a home assessment / functional assessment, including need for commode
Qn. 13	0 1 (3 or more times)	No intervention Options: • Refer to an occupational therapist for a home assessment / functional assessment, including need for commode • Refer to the general practitioner for review, and consideration of a referral to a Continence Clinic

Nutritional status		
Qn. 14 and 15	0 scores for all questions for any scores of 1 and 2's 3 for either question	No intervention Options: • Provide brochure of nutritional advice if does not have any medical conditions precluding this (e.g. coeliac disease) • Inform the general practitioner Options • Refer to a dietician if not already seeing one and has a problem which could be helped by a dietitian • Inform the general practitioner
Alcohol Intake		
Qn. 16	0 - 2 3	No intervention Inform the general practitioner
Environment		
Qn. 17 (home hazard assessment and modification by an OT has been found to be effective in reducing falls in those with a history of falls)	0 1 2 - 3	No intervention Options: • Provide education and assist with home safety improvements that could be made • Refer to an occupational therapist Refer to an occupational therapist for a home assessment
Functional behaviour		
Qn 18	0 1 - 3	No intervention Options: • If risk taking or underestimating abilities consider referral to a physiotherapist (especially if in conjunction with a mobility or balance problem) or an occupational therapist • If overestimating abilities educate about falls prevention
Function		
Qn. 19 - 22	All scores of 0 Qns 18 and 20: score of 1 or higher on either question or Qns 19 and 21: score of 1 on either question	No interventions Options: • Refer to an occupational therapist if currently unsafe with functional tasks, or may benefit from advice regarding performing functional tasks • Referral to a physiotherapist for assessment and exercise to improve function • If support services are required refer to the specific service or refer to the Aged Care Assessment Service (ACAS) • Inform the general practitioner

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Balance		
Qn. 23 (A person with a balance or walking deficit is approximately three times more likely to fall) (individuals undertaking balance and strengthening exercises prescribed by a physiotherapist or trained nurse, group classes (of balance, strength and fitness exercises), and Tai chi classes have been found to be effective in reducing falls)	0 1 2 - 3	No intervention Options: • Refer to a physiotherapist for assessment and exercise to improve gait and balance • Refer to an exercise program to improve balance / strength e.g. tai chi, balance class, weight training • Inform the general practitioner • Refer to a physiotherapist for assessment and exercise to improve gait and balance • Inform the general practitioner Option: • Refer to an occupational therapist for a functional assessment
Gait safety		
Qn. 24 - 25	0 - 1 2 - 3	No intervention Options • Refer to a physiotherapist for assessment and exercise to improve gait and use of gait aid etc • Inform the general practitioner • Refer to an occupational therapist for a home assessment / functional assessment and training
Physical activity		
Qn. 27 - 28	0 - 3	Options if less active than health and abilities allow, or undertaking activities that aren't suitable to abilities (e.g. walking outdoors when having multiple trips on the footpath / vision impaired): • Provide information on activity and falls prevention • Refer to a physiotherapist if requires individual input (e.g. health or functional problems) • Refer to an exercise class (e.g. tai chi, strength training) if the person is not limited by medical or functional problems and is interested. Encourage participant to speak to the general practitioner prior to starting class, especially if has any medical conditions • Inform the general practitioner, especially if making a recommendation to attend an exercise class
Overall FROP-Com score	< 19 >=19	• Refer to a Falls Clinic if multiple problems found or cause of falls unable to be ascertained or geriatrician input required for medical or medication review • Refer to a Falls Clinic • Inform GP of risk level and individual risk factors