Part 6 Awareness Raising, Screening and Assessment of Falls Risk

6. Awareness Raising, Screening and Assessment of Falls Risk

6.1 Measurement of Falls Risk

There are a substantial number of falls risk measurement tools that have evidence to support their reliability and validity [132]. However there is at present no tool that can be applied across all settings. Also, of the existing tools few have been validated in more than one setting [133]. In the community setting, there should be available a falls risk tool that can be used with confidence as an initial step to developing an individualised falls prevention program. Consequently, there should be little need to develop new tools. In fact, further development of fall risk tools unique to individual programs/facilities may be counterproductive because scores will not be comparable across programs/facilities [132].

6.2 Purpose of Measurement of Falls Risk

The purpose of measurement may be:

❯ Awareness raising: to examine an individual's awareness of falls and/or knowledge of risk factors

❯ Screening: to determine an individual's level of risk for falls

❯ Assessment: to examine an individual's risk factor profile and determine referral pathways and appropriate interventions.

6.2.1 Falls Risk Awareness

Falls risk awareness tools are generally designed as an education resource to raise awareness of risk of falls and alert the person to take remedial action and/or seek professional advice. They often take the form of a checklist with action plan and are self-administered. They may also be used to test knowledge of community-dwelling older people and/or health care workers about falls and risk factors in order

to determine the need for, or to evaluate the impact of, an education intervention. (Section 6.5.1 provides examples).

6.2.2   Falls Risk Screening

While there is not a definitive difference between screening and assessment tools, screening is a process that is assumed to be less detailed and may precede assessment [3]. A falls risk screen is the minimum process to determine which older people are at greatest risk of falling. Typically the screen consists of a small number of items (up to five) based on presence or absence of a risk factor. Since one of the strongest risk factors for falling is having had a previous fall [129], a minimum falls risk screen would be a single item question 'Have you had a fall in the last 12 months?' Risk factors that form part of a screening tool may not necessarily be those that can be modified to reduce the risk of falls. When the threshold score on a falls screening is exceeded it would prompt a more detailed falls risk assessment.

6.2.3   Falls Risk Assessment

Falls risk assessment is a more detailed and systematic process than screening. It is used to identify modifiable factors that contribute to a person's increased risk of falling and to develop an individualised plan focussed on prevention of falls. The implicit assumption underlying the concept of assessment of risk is that early detection and intervention (that occurs before overt development of the disorder or adverse event) will lead to a more favourable prognosis or outcome.

There is a continuum of falls risk from 'no risk' through to 'very high risk'. A graded individual falls risk assessment provides the opportunity for primary health care professional to identify risk early and intervene before the risk factor has become moderately advanced. Potentially better health outcomes will be achieved through early identification and intervention.

6.2.4   Summary of Falls Risk Measurement

The circumstances and purpose for which falls risk measurement is undertaken are illustrated in Table 6.1

Table 6-1:   Falls Risk Measurement

Tool	Who Administers	Setting[3]	Purpose
Falls Risk Awareness	Self-administered	Community	to educate and raise awareness ❯ to trigger self-referral to seek professional advice ❯ to test knowledge pre-post intervention
Falls Risk Screening	Health Professional	Primary Health Care	❯ to determine those at high risk ❯ to determine those who warrant more detailed assessment
Falls Risk Assessment	Health Professional	Primary Health Care	❯ to identify modifiable risk factors ❯ to target and tailor interventions ❯ to implement falls and injury risk management strategies for individuals identified with high risk of fall.

3   For community-dwelling older people their first level of care will be in the **primary health care setting.** See GLOSSARY for definition.

6.3   General Principles of Screening and Assessment

The prevalence of the pre-clinical condition (or risk factors) should be relatively high among the population. If the prevalence of the risk factor is low (or the intervention reaches and changes the risk factors of a limited proportion of the population) there will be little impact at the population level [80].

The resources for conducting risk measurement must be cost effective and the expenses justifiable in terms of ameliorating adverse health consequences. Ethical issues should also be considered such as availability and equity of access for the at-risk population [134].

A suitable test must be available, cost effective, easy to administer, and impose minimal demands or discomfort on those tested. The results must be valid, reliable and reproducible [134]. A number of measurement tools that meet these criteria are listed under Section 6.5

Effective treatment/interventions/care plans need to be available and evidence-based. There must be a follow-up intervention based on assessment [134].

6.3.1   Case For and Against Falls Screening and Assessment

On the basis of the principles outlined in Section 6.3, there is intuitive appeal for falls risk screening and assessment as a public health measure. However, there is still debate about its value, particularly for population-based screening of community-dwelling older people.

In support of falls screening and assessment

❯ All older people should have documentation that they were asked at least annually about the occurrence of recent falls because falls are common, often preventable, and frequently unreported [129, 135]. One of the strongest predictors of a future fall is having a previous fall, but only a third of older fallers report their falls to a health professional [58].

› Many previously undetected remediable problems, including falls, can be identified among apparently healthy older individuals in community geriatric screening programs [136]. Multiple falls can be strong indicators of accelerating frailty and the presence of underlying, treatable risk factors [135]. The high prevalence of under-diagnosed and under-treated health-related conditions in older people has motivated the development of specialised geriatric screening and assessment programs [137].

› Early identification of risk factors allows detection of impairments before a serious injury, secondary deconditioning, or loss of confidence in mobility can occur [58] and relevant changes can be monitored over time [138].

› Identification of risk factors provides direction for appropriate referrals and is the cornerstone of most preventing fall programs [63, 139].

› Use of standard protocols for assessing risk can improve communication as well as allow a common language around the concepts of functional ability, care planning, reporting and service planning [138].

› Although there is limited evidence in the area of preventing falls, early detection of risk and early intervention in a number of health areas has been shown to improve longer term outcomes.

› Risk assessment identifies a person's needs at a specific time and can be used to reassess their needs as they change over time.

In opposition to falls screening and assessment

› Falls risk screening need not be applied universally to everyone: it can still be based on criteria such as a recent fall which reduces the resource demand of the approach.

› Falls screening and assessment alone will not prevent/reduce falls, and undue emphasis may be placed on assessment rather than the consequent action plan.

> A diagnosis of high fall risk may stigmatise an older person, and raise levels of fear of falling.

> Most of the current activity in preventing falls is based on the medical model of individual clinical assessment proximate to the time of risk [30]. Traditional medical model approaches aimed at screening and treating risk factors are often too late for the purposes of prevention [140].

> Individually-based assessment and treatment may be effective in reducing an individual's risk of falling but it does little to reduce the population burden of risk [80].

> Screening of high-risk populations to predict risk of falling is of limited use [133] because it could be argued that all older people are at risk. Population-based interventions on unselected populations use a public health model that aims to prevent adverse health in all who may be susceptible [141].

> There may not be an assessment tool that can apply to all community-dwelling older people [133].

> Risk assessment needs to be repeated and this can be seen as consuming additional resources.

6.4   Evidence-Based Measures

6.4.1   Falls Risk Awareness Measures

While a number of studies have been undertaken on awareness, knowledge, attitudes and/or information needs of older community-dwelling people concerning falls, awareness tools used have not usually been subjected to rigorous review. Examples of these resources can be found in Section 6.5.1.

6.4.2   Falls Risk Screening and Assessment Measures

A number of falls risk screening and assessment tools have been developed. Reviews of these tools [132, 133, 142, 143] have focussed on acute

care and institutional settings with little attention to tools tested in community settings [133].

The main evidence supporting falls risk screening and assessment comes from reviews of falls prevention interventions. Assessment, as part of a multifactorial approach for the prevention of falls, is supported by evidence of strong associations between multiple risk factors and falls, as well as from experimental studies demonstrating significant fall reductions where assessment is combined with tailored interventions [144].

Assessment of falls risk typically involves either the use of multifactorial assessment tools that cover a wide range of fall-risk factors, or functional mobility assessments that typically focus on the physiological and functional domains of postural stability [133].

The multifactorial assessment tools consist of a checklist comprising questions used to screen the level and nature of risk based on a combined score of multiple factors known to be associated with fall-related risk [133]. A comprehensive multidimensional fall risk assessment may include the following:

❯ a history of fall circumstances and medical problems

❯ review of medications

❯ mobility assessment

❯ an examination of vision, gait and balance, and lower extremity joint function

❯ a basic neurological examination

❯ testing of psychological and mental status

❯ the assessment of cardiovascular status

❯ an assessment of foot problems and footwear

❯ an assessment of continence

❯ an assessment of environmental risk factors or home hazards.

Other components of the fall risk assessment can include functional performance tests and an environmental assessment of the individual's living circumstances [129].

Functional mobility assessment tools typically include simple performance-based tests of gait, balance, mobility, strength, and reaction times such as the Timed Up-and-Go test, the alternate step, sit-to-stand test with five repetitions and the six metre walk, and functional reach [145] (See section 6.5.2 for more details on these tools).

Both types of tools may be designed as a quick screen for determining high risk or to target specific factors for risk reduction - either may trigger referral for further investigation and testing [133].

To meet the 'Gold Standard Criteria' for quality [133], risk assessment tools should:

> be validated in prospective studies
> have sufficient data to calculate sensitivity, specificity, positive and negative predictive values
> be validated in more than one population setting
> demonstrate good face validity
> demonstrate good inter-rater reliability
> have good adherence from staff
> have clear instructions and allow a score to be easily calculated
> have a grading of risk on a particular risk factor (rather than just a yes or no response) as this is better for identifying mild levels of risk
> have clear guidelines associated that provide recommendations for management strategies for specific risk factors and level of risk identified.

Risk assessment tools should also be described in peer-reviewed journals. At present there is no tool that can be applied reliably across different settings, or for subpopulations within the one setting, to accurately predict risk of falling [133]. At the time of publication there

is no evidence available to make it possible to recommend a risk assessment tool for use in all subpopulations within community settings. However, falls prevention resources for general use, which are available from the Victorian Department of Human Services Aged Care Branch website http://www.health.vic.gov.au/agedcare/maintaining/falls/index.htm were reviewed and recommended by the National Ageing Research Institute in 2005.

Tool selection should depend upon knowing the time required to complete the tool, recommended cut-off scores (including the cut-off score which the predictive validity was tested against) and the necessary equipment and training. A 70 percent cut-off for sensitivity and specificity indicates a 'high' predictive value [143]. Predictive values may only be applicable for screening tools. There is debate around the requirement of sensitivity and specificity for assessment tools using evidence-based risk factors to inform interventions. For an explanation of the terms for assessing validity of tools, please refer to the Glossary.

Examples of falls screening and assessment tools can be found in the following Section 6.5.

6.5   Measurement Tools

Some of the most commonly used tools are discussed in the following sections.

6.5.1   Falls Risk Awareness Tools

There are a number of consumer booklets available to raise public awareness of falls risk in older people. Most are available in other languages as well as English. Unlike falls risk screening and assessment tools, they do not provide predictive risk but rather self reported risk.

Queensland Stay On Your Feet® in the community

General information resources for consumers include:

❯ *How to Stay On Your Feet® Checklist* Developed by Queensland Health and available at: http://www.health.qld.gov.au/stayonyourfeet

❯ *Staying on. Staying active and independent in your home. A guide and checklist for staying independent and reducing your risk of injury from falling.* Queensland Health Home and community Care (HACC) resource available at: http://www.health.qld.gov.au/hacc/HACCMulti_fallsprev.asp

❯ *One step ahead. Preventing falls. A guide for older people.* Queensland Health and Department of Housing resource available at: http://www.health.qld.gov.au/PHS/Documents/shpu/22094.pdf

❯ *Don't fall for it. Falls can be prevented! A guide to preventing falls for older people.* Developed as part of the National Falls Prevention in Older People Initiative and available at http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-strateg-injury-falls-documents.htm

❯ *Stay on your feet and avoid a shattering experience.* Developed by *Stay on Your Feet®*, WA and available at: http://www.stayonyourfeet.com.au/resources.php

❯ *Falls prevention booklet.* Developed for Department of Human Services, Victoria and available at: http://www.health.vic.gov.au/agedcare/maintaining/falls/index.htm

❯ *DVA Homefront guide to preventing falls for older people.* Developed by the National Ageing Research Institute. http://www.dva.gov.au/media/publicat/2006/preventing_falls/preventing_falls.pdf

Short self-assessment checklists for personal risk factors include:

❯ *Will I stay active and independent?* Developed by Queensland Health http://www.health.qld.gov.au/stayonyourfeet

❯ *How safe are you from falling?* Developed by Stay on Your Feet - Adelaide West and available at: http://www.health.vic.gov.au/agedcare/maintaining/falls/index.htm

❯ *How many of these questions do you fall down on?* Developed by *Stay on Your Feet*®, WA and available at: http://www.stayonyourfeet. com.au/resources.php

❯ *Falls are preventable.* Developed for Department of Human Services, Victoria and available at: http://www.health.vic.gov.au/agedcare/ maintaining/falls/index.htm

❯ *Am I at risk of falls? Quick quiz.* Developed for Department of Human Services, Victoria and available at: http://www.health.vic.gov.au/ agedcare/maintaining/falls/index.htm

In addition to personal falls risk awareness, a number of checklists are available to audit the safety of the environment, particularly the home. Consumer resources for home safety checklists include:

❯ *Stay on Your Feet. Your home safety checklist.* Developed by NSW Health and available at: http://www.health.vic.gov.au/agedcare/ maintaining/falls/index.htm

❯ *Your home safety checklist.* Developed by *Stay on Your Feet*®, WA and available at: http://www.stayonyourfeet.com.au/resources.php

Resources for auditing public spaces include:

❯ *Improving safety to promote walking in your local area.* Developed for Department of Human Services, Victoria and available at: http:// www.health.vic.gov.au/agedcare/maintaining/falls/downloads/ imprsafety_promotewalk.pdf

❯ *Preventing falls in public places Appendix C: Hazards Report Form.* Developed by NSW *Stay on Your Feet* Program and available at: http://www.health.vic.gov.au/agedcare/maintaining/falls/localgov_ public.htm

6.5.2   Falls Risk Screening Tools

Below are listed a number of examples of screening tools with reasonable sensitivity and specificity[4] determined for well-conducted studies with adequately-sized samples. A number of these tests, or a battery of tests, may be used in combination to measure falls risk in any one patient.

Alternate Step Test. This test is easy to do and only requires a small amount of additional equipment (step and stop watch). It should be done with shoes removed and using a step that is 19cm high and 40 cm deep. The test requires weight shifting by stepping alternately with the whole left foot and then right foot up onto the step as fast as possible. The test is the time to complete eight steps alternating the feet. Tiedemann et al (2007) found the sensitivity of this test was 69 percent and specificity 65 percent, and with a cut off point of 10 seconds is associated with a 130 percent increased falls risk and identifies multiple fallers [145].

Sit to Stand with five repetitions (STS-5). This test is used to measure lower limb strength [145]. This task requires getting up from a standard height sitting position five times from a chair (height 43cm) without arm rests. Tiedemann et al (2007) found the sensitivity of this test was 66 percent and specificity 55 percent and, at a cut off point of 12 seconds, it could significantly predict subjects who suffered multiple falls [145].

6 – Metre Walk. The six metre walk test is the time taken in seconds to walk six metres at normal walking speed. A two metre approach and a further two metres beyond the six metre distance ensures that walking speed is constant across the timed six metres. Tiedemann et al

---

4   An important issue when comparing sensitivity and specificity figures is the sampling used – many studies have used those clearly at risk and those clearly not at risk (eg well older people), and so discriminating them is relatively easy. The best studies of sensitivity / specificity include a moderate proportion of the sample in the middle ground, who are much harder to classify. Caution needs to be used in comparing these multiple studies of sensitivity and specificity so that, for direct comparison, studies with similar sampling profile should be used.

(2007) found the sensitivity of this test was 50 percent and specificity 68 percent. The test had strong external validity (it was able to discriminate between multiple fallers and non-multiple fallers) which made the tool a significant predictor of falls risk [145].

Functional Reach. This test involves the measurement of a subject's ability to reach forward as far as possible without losing balance or stepping, and with the arm positioned at 90 degrees of shoulder flexion. At a cut-off score of 20 centimetres, reported sensitivity was 73 percent and specificity was 88 percent [146].

Elderly Fall Screening (EFST) is a five item test used to divide subjects into low and high risk based on history of falls and observations of walking speed and gait style [147]. Cwikel et al (1998) demonstrated that the results of physicians' examinations corroborated the EFST results in 75 percent of the cases, with 83 percent sensitivity and 69 percent specificity for a cut-off score of two or more risk items [147].

Geriatric Postal Screening Survey (GPSS) is a ten item screening tool. Five of the items screen for specific geriatric conditions (falls/balance problems, urinary incontinence, depression, memory loss, and functional impairment) and five other items are general indicators of health status (health perceptions, weight loss, polypharmacy, and pain) [148]. The screening accuracy of the GPSS compared with clinical evaluation for falls risk showed 94 percent sensitivity and 51 percent specificity, using four as the cut-off point [148].

QuickScreen measures number of risk factors based on tests of vision (low contrast visual acuity test), peripheral sensation (tactile sensitivity test), strength, reaction time and balance (near tandem stand, alternate step, and sit-to-stand tests) [35]. The criteria for identifying impairments that increase risk of falls were identified from prospective studies of community-dwelling older people [149]. When participants in a validation study were stratified into high and low risk groups (high risk being the identification of four or more QuickScreen risk factors), the sensitivity was 74 percent and the specificity was 63 percent [150].

Falls Risk for Older People – Community Setting Screen (FROP-Com Screen). The FROP-Com Screen is a three-item screen that has been developed based on the FROP-Com (see Section 6.5.3.1). Recent research found the sensitivity ranged from 0.67 – 0.70. The results provide another validated risk screening tool for use in the community. For more information refer to http://www.mednwh.unimelb.edu.au/research/research_falls_service.htm

Timed Up and Go (TUG). For this test, the participant sits in a chair with arms. On the word "go" the participant is required to stand and walk at a normal pace for three metres, turn around, walk back and sit back down. As a predictor of falls, this test demonstrated a sensitivity of 86 percent and specificity of 71 percent, using a cut-off score of 10 seconds [151]. This has been recommended by the American Geriatrics Society and British Geriatric Society [59].

6.5.3   Falls Risk Assessment Tools

6.5.3.1   Multifactorial Falls Risk Assessment

Examples of multifactorial falls risk assessment tools include:

Physiological Profile Assessment (PPA) [152] involves quantitative assessment of sensorimotor and balance abilities. It also includes simple tests of vision (high and low contrast visual acuity, contrast sensitivity, depth perception), peripheral sensation (tactile sensitivity, vibration sense, proprioception), lower limb strength, reaction time, and postural sway. The comprehensive version of the PPA contains 18 items and takes 45 minutes to administer. It has been used primarily in dedicated falls clinics and research settings. The shorter version of the PPA takes 15 minutes to administer and contains five items: a single assessment of vision, peripheral sensation, lower limb strength, reaction time and body sway. The shorter version has been used more extensively in clinical practice. In a study of community-dwelling women [149], the PPA measurements correctly classified subjects into a multiple falls group or non-multiple falls group with 75 percent

accuracy. There is a cost involved to purchase these tools. Details about the instrument are available at http://www.powmri.edu.au/FBRG/

Falls Risk for Older People – Community Setting (FROP-Com) grades risk on most falls risk factors on a 4 point scale; there is no cost associated with this tool; it takes about 20 minutes to complete and it has guidelines that will assist with assessment and for recommendations to guide falls management. The falls risk factors included are falls history, medications, medical conditions, sensory loss, foot problems, cognitive status, continence, nutritional status, and function. In a study using the FROP-Com [153], the assessment tool identified a high overall falls risk score for a group of individuals presenting to a hospital Emergency Department after a fall. Details about the instrument are available at http://www.health.vic.gov.au/agedcare/maintaining/falls/providers/home/frop.htm

6.5.3.2 Balance Assessment

Below are a number of commonly used examples of balance assessments requiring little or no equipment.

Berg Balance Scale (BBS) consists of 14 items which include tasks such as transfers, standing unsupported, sit-to-stand, tandem standing, turning 360 degrees and single-leg stance [154]. Overall the Berg Balance Scale has moderate to good specificity but low sensitivity in predicting falls [35]. However, in a study combining the score on the BBS with a self- reported history of imbalance, sensitivity was 91 percent, and specificity was 82 percent [155].

Tinetti's Performance Oriented Balance and Mobility Assessment (POMA) is designed to assess balance and gait during position changes and gait manoeuvres used during normal activities. Performance on 14 balance items and 10 gait items is graded as normal, adaptive or abnormal [156, 157]. The balance assessment evaluates sitting balance, rising from a chair, immediate and prolonged standing balance, withstanding a nudge to the sternum, balance with

eyes closed, turning balance and sitting down. In a validity study, the Tinetti balance scale was used to predict individuals who would fall at least once during the following year [156]. A cut-off score of 36 or less had 70 percent sensitivity and 52 percent specificity for predicting fallers.

6.5.3.3 Home hazard assessment

Instruments have been developed for use by community nursing personnel, occupational therapists, and physiotherapists to identify hazards in the home that may contribute to or increase the risk of falling. The content validity of some of these tools has been established [158, 159]. The HomeFast Tool demonstrated fair to good level of inter-rater agreement (.62) for the identification of home hazards [159]. Details about the instrument are available at http://www.health.vic.gov.au/agedcare/maintaining/falls/providers/home/env_check.htm

6.5.3.4 Comprehensive geriatric assessments

While not designed primarily as a falls risk assessment tool, falls history is generally included in comprehensive geriatric assessments. Also included are many of the known risk factors for falls, such as cognitive status, sensory impairments, pain, weight loss, incontinence, effects of medication use, and mobility impairment. In addition, comprehensive assessment may include lifestyle factors such as alcohol consumption, smoking history, diet, physical activity, and social support.

Examples of health assessments for older community-dwelling people include:

❯ Enhanced Primary Care (EPC) Health Assessments for Australians aged 75 + (55 + for Aboriginal and Torres Strait Islander people) http://health.gov.au/internet/wcms/publishing.nsf/Content/health-epc-hlthassmnt.htm/$FILE/chklisthlth.pdf

❯ Royal Australian College of General Practitioners (RACGP) Health Assessment http://www.tdgp.com.au/forms/75YOHealthAssessmentRACGPVersionOct2006.rtf

❯ Aboriginal and Torres Strait Islanders Health Assessment http://epc.adgp.com.au/resources/download/healthassTSI04purple.doc

❯ InterRAI assessment tools for geriatric screening and care planning across the continuum of care http://interrai-au.org/

❯ Falls Evaluation Checklist for General Practitioners http://www.health.vic.gov.au/agedcare/maintaining/falls/providers/home/prac.htm

As part of health assessments, other associated factors may also be assessed such as nutritional status, cognitive ability and social support. Examples of pre-existing scales often included in health assessments [160] include:

❯ Nutrition. The Australian Nutrition Screening Initiative (ANSI) [161] is a 12 item screening tool that asks about eating habits and conditions associated with nutrition risk. It is not intended to diagnose malnutrition.

❯ Cognitive Impairment. The 11 item Mini-Mental Status Examination [162] and an abbreviated form using four items [163] are commonly used clinical screening tests to assess cognitive impairment in older adults.

❯ Social Support. The 11 item Dukes Social Support Index measures social interaction (four items) and satisfaction with support (seven items) and provides a brief and valid measure of social support for use in community-dwelling older people [164, 165].

❯ Depression. The Geriatric Depression Scale (GDS) [166] has been tested extensively in the older population. Short versions (four, five and 15 item) are useful screening tools in the clinical setting for the assessment of depression [167].

Suggested tools for these measures are available in the *Stay On Your Feet® Community Good Practice Toolkit* at www.health.qld.gov.au/ stayonyourfeet. Currently there is no information on sensitivity and specificity for these tools for falls prediction.

The lack of studies on the predictive validity of comprehensive medical assessments likely reflects the fact that such assessments are not undertaken to predict falls risk but to identify areas where medical intervention is required [132].
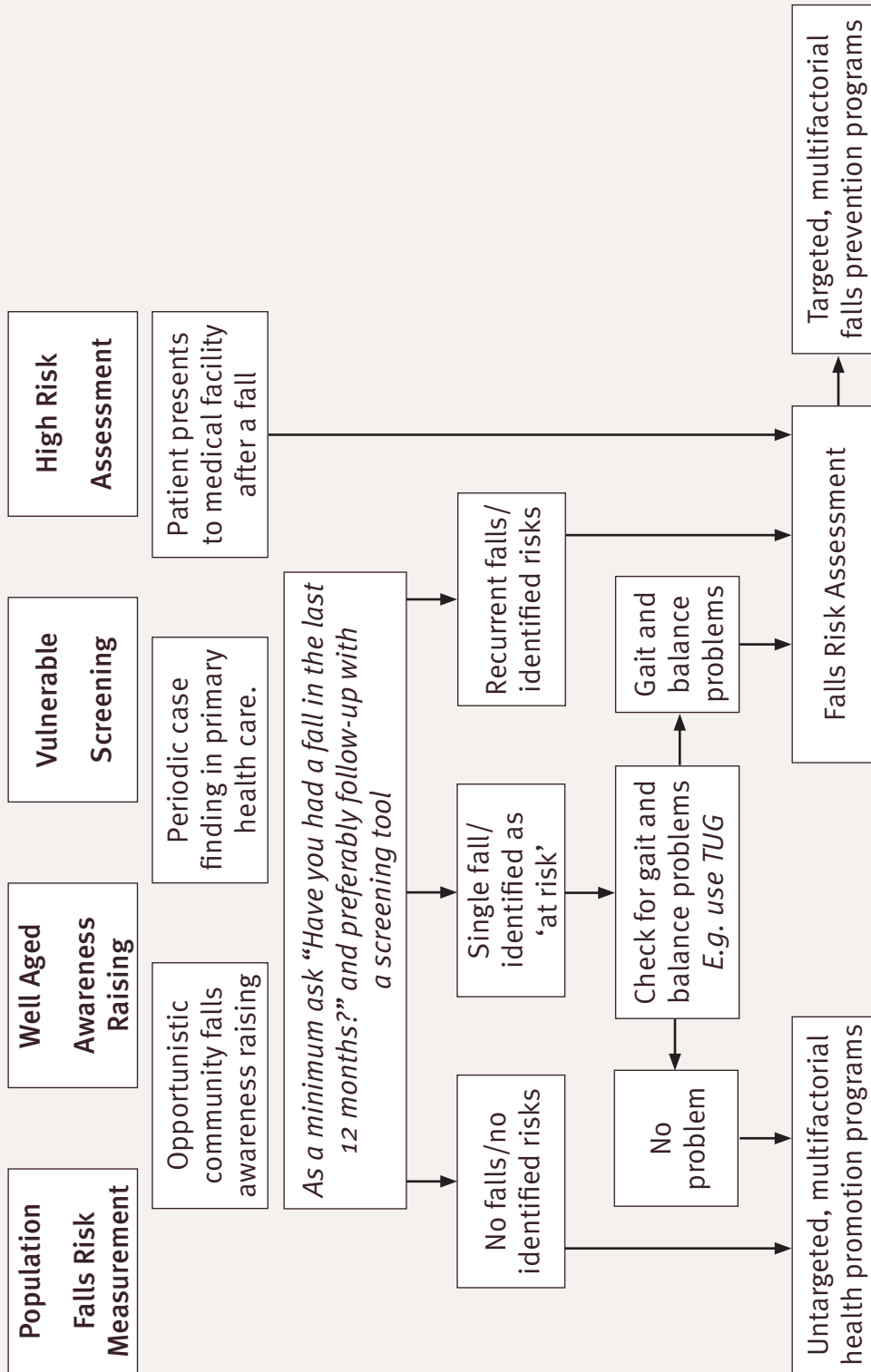
6.6   The Assessor

To achieve a comprehensive and meaningful assessment, the assessor must:

› be trained in the assessment tool
› understand the measurements used within the tool, including normative scores for older people of different ages
› have good communication skills, knowledge and experience in the care of older people
› understand ageing across the lifespan (including heterogeneity of older people, their culture their environment and interaction within the community)
› involve the client, and where appropriate, the carer, in discussion of assessment findings, implications and a management plan.

6.7   Recommended Pathways for the Measurement of Falls Risk

The recommended pathways for measurement of falls risk are shown in Figure 6.1.

Figure 6-1: Recommended Pathways for Measurement of Falls Risk

High Risk Assessment	Vulnerable Screening	Well Aged Awareness Raising	Population Falls Risk Measurement
Patient presents to medical facility after a fall	Periodic case finding in primary health care.	Opportunistic community falls awareness raising	

As a minimum ask "Have you had a fall in the last 12 months?" and preferably follow-up with a screening tool

- Recurrent falls / identified risks
- Single fall / identified as 'at risk'
- No falls / no identified risks

Check for gait and balance problems *E.g. use TUG*

- Gait and balance problems
- No problem

Falls Risk Assessment

Targeted, multifactorial falls prevention programs

Untargeted, multifactorial health promotion programs

Source: Adapted from American Geriatric Society Guidelines, 2001 (p.666) [59]

Good Practice Points

› A minimum falls risk screen would be the single item question "Have you had a fall in the last 12 months?"

› At least annually, health professionals should ask all older people in their care about the occurrence of recent falls.

› All older people who report a fall should be observed for gait and balance problems, for example using the Timed Up and Go (TUG). Those that have difficulty or demonstrate unsteadiness need further assessment of their falls risk.

› Any assessment of falls risk should be followed by action to develop a tailored plan to prevent falls with a focus on identified risk factors.

› Falls risk assessment needs to be undertaken by trained staff with intermittent reviews to ensure appropriate and consistent use.

› Where possible select tools that have been validated in the target population.

› Adapting or modifying these tools is not recommended.

› Any design or innovation in falls risk assessment tools should be undertaken in a research context to ensure appropriate evaluation of the tool. Ideally the results should be published in a peer-review journal.

› Available evidence at the time of publication does not make it possible to recommend a risk assessment tool for use in all subpopulations within community settings. However a set of resources for preventing falls for general use are available from the Victorian Department of Human Services Aged Care Branch website http://www.health.vic.gov.au/agedcare/maintaining/falls/index.htm. These were reviewed and recommended by the National Ageing Research Institute in 2005.

› A number of tools for assessing risk factors in older community-dwelling people are available in the *Queensland Stay on Your Feet® Community Good Practice Toolkit*. (http:///www.health.qld.gov.au/stayonyourfeet)

› There should be wide dissemination of self check lists and health promotion information with relevance to preventing falls.

6.8 Attitudes of Older People About Falls and Falls Prevention

Research findings about knowledge, attitudes and/or information needs of older community-dwelling people, have the following implications for preventing falls.

6.8.1 Perception of being 'old'

There is a need to recognise that 'older people' represent a large and very diverse group [69]. Targeting 'older people' as a homogeneous group may provoke a negative or non-response among people who do not relate to portrayals with which they do not identify [68]. People may distance themselves from the possibility of a fall and involvement in prevention initiatives, through fear of stigma and stereotyping as being 'old' [168]. Prevention messages need to be framed in positive terms and be built into ongoing health assessments. The information should be included in lifestyle programs such as retirement planning and chromic disease strategies.

6.8.2 Perception of the Language of Falls

The term 'fall' is contentious, has negative connotations, and its use is likely to inhibit engagement with any preventive program [68], as well as signify an admission of being 'old' [69]. 'Falls prevention' is an unfamiliar term [69], but predominantly associated with fixing or removal of hazards, for example, repair of broken footpaths or removal of floor rugs [69, 168, 169]. To improve the likelihood of being taken up by older people, messages should focus on positive healthy ageing, highlighting independence, staying in control, and living in one's home for longer [69].

6.8.3 Perception of Falls Risk

Older people are not ignorant of risks [170] and acknowledge that falls are a problem with serious consequences [69, 169]. However, they do not

necessarily consider themselves at risk [69, 168, 169, 170], unless they have experienced a fall [69, 171]. Falls are generally regarded as a future risk and not a current concern, and are mostly not considered important at younger ages [169]. People tend to consider that "other" older people are more at risk than themselves [169]. Social and cultural differences in acceptance of the ageing process can also influence perceptions of risk, vulnerability, and dependence [68]. There is disbelief among older people that the risk of falling can be reduced [69] because falls are seen as inevitable, unpredictable and not preventable [68, 172].

6.8.4   Attribution of Falls Risk

Falls are often attributed to external factors [169], such as bad luck or the incompetence of others [168]. Perceived causes of falls may relate to health status: those in good health are likely to attribute their fall to their surroundings, while those with compromised health are likely to attribute their fall to their own limitations [173].

6.8.5   Information Needs

Information should counter the belief that falls are inevitable and that nothing can be done [70]. Such information can come from a variety of sources [69] and should be published in different languages [70]. Advice on preventing falls is typically regarded as common sense, potentially patronising, and useful in principle but only necessary for older, more disabled individuals [170].

6.8.6   Relevance of Participating in Programs to Prevent Falls

The perceived relevance of participating in interventions to prevent falls is low until a fall has been experienced [68, 69, 171]. For younger people in the over 65 age group falls may not be perceived to be a current concern and the relevance of preventing falls must relate to their particular context [68]. Persons with the poorest physical, cognitive and psychological functional abilities represent the part of

the population at highest risk of falling – yet these people are often difficult to reach with activities to prevent falls [174].

To make preventing falls more relevant and encourage participation, the emphasis should be on the positive actions and sense of mastery to counteract fear of falling [172], as well as the multiple and positive benefits for health and well-being [170]. The promotion of healthy ageing may be more attractive and appropriate to all age groups [68]. Falls interventions need to be communicated as a lifestyle-enhancing measure and as a means for staying independent for longer [69, 70].

Awareness of health problems that relate to falls (such as osteoporosis) represents a possible route for discourses about preventing falls [68] and is relevant for fallers and non-fallers. Finding ways to enhance confidence, social activity, and promote independence may be particularly effective in facilitating change among those groups for whom falls and, indeed, old age, are perceived to be a distant risk [69, 172].

Yardley et al (2007) examined ways for promoting uptake of, and adherence to, falls-prevention interventions among older people, based on literature review, clinical experience of the core group members, and substantial qualitative and quantitative studies of older people's views [175]. Recommendations address the need to educate the public, to ensure that interventions are compatible with a positive identity, to tailor interventions to the specific situation and values of the individual, and to use validated methods to maintain longer-term adherence.

Black and Hill (2005) examined ways to improve the uptake of interventions at falls clinics in Victoria [176]. They found that people thought interventions were not needed, were of minimal benefit, and were inappropriate. People in the study also thought that the interventions aggravated injuries, their health had declined, and in some cases there was miscommunication due to a language barrier. This report highlighted the need for health professionals to clearly explain the benefit of the intervention and to consider a person's

perspective, current circumstances, and provide a holistic person centered approach to care [176].

Good Practice Points

❯ Prior to embarking on falls risk assessment and intervention the relevance and acceptability of interventions to the target group should be understood.

❯ Public education programs should promote greater awareness among older people, carers, and health professionals of the benefits of preventive health activities.

❯ Programs should be flexible enough to accommodate older people's needs, circumstances and interests.

❯ In discussions with older people, the term 'falls prevention' should be down played as it may be unfamiliar, difficult to understand or not considered relevant. Messages for preventing falls should be presented in the context of staying independent for longer.

❯ Information provided should be easy to understand so that older people and their carers can take part in discussions and decisions about preventing falls. This includes offering information in languages other than English if appropriate or necessary.

❯ Find out what changes an older person is willing to make to prevent falls and help overcome potential barriers that may prevent action to reduce falls.

❯ Clearly explain the benefits of the intervention and consider the person's perspective, current circumstances, and provide a holistic person centered approach to care.