

# AGS/BGS Clinical Practice Guideline: *Prevention of Falls in Older Persons*

## Summary of Recommendations

### SCREENING AND ASSESSMENT

1. All older individuals should be asked whether they have fallen (in the past year).
2. An older person who reports a fall should be asked about the frequency and circumstances of the fall(s).
3. Older individuals should be asked if they experience difficulties with walking or balance.
4. Older persons who present for medical attention because of a fall, report recurrent falls in the past year, or report difficulties in walking or balance (with or without activity curtailment) should have a multifactorial fall risk assessment.
5. Older persons presenting with a single fall should be evaluated for gait and balance.
6. Older persons who have fallen should have an assessment of gait and balance using one of the available evaluations.
7. Older persons who cannot perform or perform poorly on a standardized gait and balance test should be given a multifactorial fall risk assessment.
8. Older persons who have difficulty or demonstrate unsteadiness during the evaluation of gait and balance require a multifactorial fall risk assessment.
9. Older persons reporting only a single fall and reporting or demonstrating no difficulty or unsteadiness during the evaluation of gait and balance do not require a fall risk assessment.
10. The multifactorial fall risk assessment should be performed by a clinician (or clinicians) with appropriate skills and training.
11. The multifactorial fall risk assessment should include the following:

#### ***Focused History***

- a. History of falls: Detailed description of the circumstances of the fall(s), frequency, symptoms at time of fall, injuries, other consequences
- b. Medication review: All prescribed and over-the-counter medications with dosages
- c. History of relevant risk factors: Acute or chronic medical problems, (e.g., osteoporosis, urinary incontinence, cardiovascular disease)

#### ***Physical Examinations***

- d. Detailed assessment of gait, balance, and mobility levels and lower extremity joint function
- e. Neurological function: Cognitive evaluation, lower extremity peripheral nerves, proprioception, reflexes, tests of cortical, extrapyramidal and cerebellar function
- f. Muscle strength (lower extremities)
- g. Cardiovascular status: Heart rate and rhythm, postural pulse, blood pressure, and, if appropriate, heart rate and blood pressure responses to carotid sinus stimulation
- h. Assessment of visual acuity
- i. Examination of the feet and footwear

### ***Functional Assessment***

- j. Assessment of activities of daily living (ADL) skills including use of adaptive equipment and mobility aids, as appropriate
- k. Assessment of the individual's perceived functional ability and fear related to falling (Assessment of current activity levels with attention to the extent to which concerns about falling are protective [i.e., appropriate given abilities] or contributing to deconditioning and/or compromised quality of life [i.e., individual is curtailing involvement in activities he or she is safely able to perform due to fear of falling])

### ***Environmental Assessment***

- l. Environmental assessment including home safety

## **INTERVENTIONS**

### **OLDER PERSONS LIVING IN THE COMMUNITY**

- 12. The multifactorial fall risk assessment should be followed by direct interventions tailored to the identified risk factors, coupled with an appropriate exercise program.[A]
- 13. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk factors and management of the risk factors identified.[A]
- 14. The components most commonly included in efficacious interventions were:
  - a. Adaptation or modification of home environment [A]
  - b. Withdrawal or minimization of psychoactive medications [B]
  - c. Withdrawal or minimization of other medications [C]
  - d. Management of postural hypotension [C]
  - e. Management of foot problems and footwear [C]
  - f. Exercise, particularly balance, strength, and gait training [A]
- 15. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]
- 16. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]
- 17. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]
- 18. Psychoactive medications (including sedative hypnotics, anxiolytics, antidepressants) and antipsychotics (including new antidepressants or antipsychotics) should be minimized or withdrawn, with appropriate tapering if indicated. [B]
- 19. A reduction in the total number of medications or dose of individual medications should be pursued. All medications should be reviewed, and minimized or withdrawn. [B]
- 20. Exercise should be included as a component of multifactorial interventions for fall prevention in community-residing older persons. [A]

21. An exercise program that targets strength, gait and balance, such as Tai Chi or physical therapy, is recommended as an effective intervention to reduce falls [A]
22. Exercise may be performed in groups or as individual (home) exercises, as both are effective in preventing falls. [B]
23. Exercise programs should take into account the physical capabilities and health profile of the older person, (i.e., be tailored) and be prescribed by qualified health professionals or fitness instructors. [I]
24. The exercise program should include regular review, progression and adjustment of the exercise prescription as appropriate. [I]
25. In older women in whom cataract surgery is indicated, surgery should be expedited as it reduces the risk of falling. [B]
26. There is insufficient evidence to recommend for or against the inclusion of vision interventions within multifactorial fall prevention interventions. [I]
27. There is insufficient evidence to recommend vision assessment and intervention as a single intervention for the purpose of reducing falls. [D]
28. An older person should be advised not to wear multifocal lenses while walking, particularly on stairs. [C]
29. Assessment and treatment of postural hypotension should be included as components of multifactorial interventions to prevent falls in older persons. [B]
30. Dual chamber cardiac pacing should be considered for older persons with cardioinhibitory carotid sinus hypersensitivity who experience unexplained recurrent falls. [B]
31. Vitamin D supplements of at least 800 IU per day should be provided to older persons with proven vitamin D deficiency. [A]
32. Vitamin D supplements of at least 800 IU per day should be considered for people with suspected vitamin D deficiency or who are otherwise at increased risk for falls. [B]
33. Identification of foot problems and appropriate treatment should be included in multifactorial fall risk assessments and interventions for older persons living in the community. [C]
34. Older people should be advised that walking with shoes of low heel height and high surface contact area may reduce the risk of falls. [C]
35. Home environment assessment and intervention carried out by a health care professional should be included in a multifactorial assessment and intervention for older persons who have fallen or who have risk factors for falling. [A]
36. The intervention should include mitigation of identified hazards in the home, and evaluation and interventions to promote the safe performance of daily activities. [A]
37. Education and information programs should be considered part of a multifactorial intervention for older persons living in the community. [C]
38. Education should not be provided as a single intervention to reduce falls in older persons living in the community. [D]

#### **OLDER PERSONS IN LONG-TERM CARE FACILITIES**

39. Multifactorial/multicomponent interventions should be considered in long-term care to reduce falls. [C]
40. Exercise programs should be considered to reduce falls in older persons living in long-term care settings with caution regarding risk of injury in frail persons. (C)
41. Vitamin D supplements of at least 800 IU per day should be provided to older persons residing in long-term care settings with proven or suspected vitamin D insufficiency. [A]

42. Vitamin D supplements of at least 800 IU per day should be considered in older persons residing in long-term care settings who have abnormal gait or balance or who are otherwise at increased risk for falls. [B]

**OLDER PERSONS WITH COGNITIVE IMPAIRMENT**

43. There is insufficient evidence to recommend for or against multifactorial or single interventions to prevent falls in older persons with known dementia living in the community or in long-term care facilities. [I]

**Strength of Recommendation Rating System**

[ A ]	A strong recommendation that the clinicians provide the intervention to eligible patients.  <i>Good evidence was found that the intervention improves health outcomes and the conclusion is that benefits substantially outweigh harm.</i>
[ B ]	A recommendation that clinicians provide this intervention to eligible patients.  <i>At least fair evidence was found that the intervention improves health outcomes and the conclusion is that benefits outweigh harm.</i>
[ C ]	No recommendation for or against the routine provision of the intervention is made.  <i>At least fair evidence was found that the intervention can improve health outcomes, but the balance of benefits and harms is too close to justify a general recommendation.</i>
[ D ]	Recommendation is made against routinely providing the intervention to asymptomatic patients.  <i>At least fair evidence was found that the intervention is ineffective or that harm outweighs benefits.</i>
[ I ]	Evidence is insufficient to recommend for or against routinely providing the intervention.  <i>Evidence that the intervention is lacking, or of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</i>