

Falls in the geriatric population can lead to significant morbidity and mortality. Annual screening for fall risk for those >65 is recommended. Current recommendations from the American Geriatrics Society (AGS) /British Geriatrics Society include not only performing a multifactorial fall risk assessment on patients >65 who have fallen or exhibit gait and balance issues, but also performing a fall risk assessment on patients who report gait and balance difficulties and/or think they may fall. Newer recommendations include:

- examining patient's feet and footwear
- a functional assessment for activities of daily living including any adaptive equipment
- assessing the individual's perceived functional ability and fear of falling
- an environmental assessment

Interventions should be based on the identified risk factors and aimed at mitigation of these factors.

Community dwellers should have an exercise regimen that includes balance, gait, and strength training (i.e. tai chi or physical therapy).

Another consideration should be given to whether the patient has cataracts. If cataracts are present, surgery should be expedited.

A medication review should be done reducing or withdrawing unnecessary drugs. Avoiding psychoactive medications is prudent.

If a patient exhibits cardioinhibitory carotid sinus hypersensitivity, AGS recommends the consideration of cardiac pacing.

Vitamin D is recommended as a daily supplement for all older adults at risk for falls (AGS, 2011)

Screening tools (implementation is dependent upon individual facility resources):

- STEADI <https://www.cdc.gov/steady/pdf/STEADI-Algorithm-508.pdf>
- 30 sec. chair stand test <https://www.cdc.gov/steady/pdf/STEADI-Assessment-30Sec-508.pdf>
- TUG (Timed Up and Go) https://www.cdc.gov/steady/pdf/TUG_Test-print.pdf
- 4-stage balance test https://www.cdc.gov/steady/pdf/4-Stage_Balance_Test-print.pdf
- Hendrick II fall risk assessment <https://consultgeri.org/try-this/general-assessment/issue-8.pdf>
- Morse Fall scale <https://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtk-tool3h.html>

- Briggs Risk Assessment
- Conley Risk Assessment (see appendix one--
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4718351/>)
- Schmid Fall assessment tool.

Risk Factors:

Previous falls
 Decreased strength and mobility
 Impaired gait/balance
 Psychoactive medications
 Polypharmacy
 Orthostasis
 Diabetes
 Incontinence
 Visual disturbances
 Female
 >80 y/o
 Dementia
 Low BMI

Recommended assessments:

Gait and balance
 Physical exam
 Visual acuity
 Cognitive evaluation
 Foot and footwear assessment
 Home safety assessment
 (Lee, Lee, & Khang, 2013)

References

American Geriatrics Society/British Geriatrics Society. (2011). Summary of the updated American Geriatrics Society/British Geriatrics Society clinicap practice guideline for prevention of falls in older persons. *Journal of American Geriatrics Society*, 59, 148-157. Retrieved from www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/2010/

Lee, A., Lee, K-W., Khang, P. (2013). Preventing falls in the geriatric population. *The Permanente Journal*, 17(4), 37-39. doi:10.7812/TTP/12-119

Preventing Falls in the Geriatric Population: Physician Pocket Reference

Risk Factors for Falls		
Previous falls	Depression	Low body mass index
Decreased strength	Dizziness	Urinary incontinence
Gait/balance impairments	Orthostasis	Cognitive impairment
Use of psychoactive medications	Functional limitations	Arthritis
Visual impairment	Age > 80 years	Diabetes
Polypharmacy	Female sex	Undertreated pain

Risk Assessment

Ask about history of falls patient's assessment of his/her functional ability	Perform gait assessment physical exam (esp neurologic, cardiac) assessment of orthostatic vital signs visual acuity exam cognitive evaluation examination of feet and footwear home safety evaluation
Review medications medical history	

Screening for Falls

- Ask about a fall history every year.
- If a patient reports a fall or gait and balance problems, perform an in-office gait evaluation such as the Timed Up and Go test.

Timed Up and Go Test

- Observe postural stability, gait, stride length, sway, and steppage.
- A normal time is 14 seconds or less.

Ask the patient to:

- rise from the chair
- walk three meters
- turn around
- walk back to the chair
- sit back down

Ambulatory Interventions

1. Exercise/physical therapy programs aimed at improving balance, gait, and strength	6. Modification of home environment
2. Withdrawal or minimization of use of psychoactive medications	7. Patient and caregiver education
3. Management of postural hypotension	8. Vitamin D supplementation in deficient or high fall risk patients
4. Management of foot problems	9. Expedited cataract surgery (selected patients)
5. Changes in footwear	10. Dual chamber cardiac pacing (selected patients)

Hospital Interventions (based on Schmid Fall Risk Assessment)

1. Appropriate reorientation strategies	7. Patient and family education about fall risk
2. Access to patient's hearing aids or glasses	8. Early and frequent mobilization
3. Call bell	9. Nonslip footwear
4. Access to patient's personal items	10. Elimination of barriers to transfer or ambulation
5. Use of patient's walking aids	11. Minimization of use of restraints
6. Frequent comfort rounds	12. Use of bed alarm when necessary

(Lee, Lee, & Khang, 2013)