Fall Prevention Outline

Management of Falls in Older Adults

Objectives

- Identify Medicare Advantage members at risk for falls or those who have fallen.
- Reduce the number of fall injuries by Medicare Advantage members.
- Provide a comprehensive and efficient approach to the office evaluation of the patient who falls, or who is at risk for falls.
- Identify when to refer Medicare Advantage members to physician specialists, rehabilitation, and to community services as part of the management of the fall, or fall risk.

Falling is not an inevitable result of aging. Health care providers can make fall prevention part of care in their practice and older adults can take steps to protect themselves. Falls are among the most serious health concerns facing our country's rapidly aging population. Recovery from falls is complicated by poor quality of life caused by restricted mobility and functional decline and is a predictor for nursing home placement.

Statistics

According to the U.S. Centers for Disease and Prevention:

- 1 in 4 Americans age 65+ fall each year.
- Every 11 seconds an older adult is treated in the ER for a fall. Every 19 minutes an older adult dies from a fall.
- Falls result in more than 2.8 million injuries treated in the ER annually, including over 800,000 hospitalizations and more than 27,000 deaths each year.
- $34 billion is spent on direct medical cost related to falls.
- Among people who fall, less than one half talk to their health care provider about the fall.

Risk Factors

- Age (65+)
- Gender (female)
- Hazardous environment, improperly fitting shoes, slippery floor surfaces, poor lighting, absence of handrails, curbs, and obstructed or dangerous pathways, particularly in the home, such as furniture and throw rugs
- History of unsteady gait
- Fear of falling
- Cognitive impairment
- Vision impairment (decreased visual acuity, glare intolerance, altered depth perception)
- Disease states (CVA, Parkinson's disease, dementia, infection, cardiac dysrhythmias, orthostatic hypotension, osteoarthritis, urinary incontinence)
- Mobility/strength abnormalities
- Urinary and bowel incontinence

Polypharmacy or Adverse Drug Reactions

A number of drugs that include the following may increase a patient's risk of falling.

- Antipsychotics
- Sedatives hypnotics (including benzodiazepines)
- MAOIs, SSRIs, TCAs
- Antiarrhythmics (Class 1A)
- Anticonvulsants (Avoid unless safer alternatives are not available; avoid except if seizure disorder)
- Anxiolytics (including benzodiazepines)
- Antihypertensives
- Diuretics
- Systemic glucocorticoids
- Skeletal muscle relaxants

Clinical Assessment — History and Physical

Ask patients if they have fallen in the past year, feel unsteady, or worry about falling.

History — *Inquire from patient or witness about:*

- Circumstances of the fall: e.g., trip or slip, environmental hazard, posture change, recent meal, urination or defecation, head turning, cough or sneeze, other activity
- Associated symptoms: e.g., chest pain, palpitations, lightheadedness, vertigo, fainting, weakness, confusion, incontinence, dyspnea
- Relevant comorbid conditions: e.g., prior stroke, Parkinsonism, osteoporosis, seizure disorder, cardiac disease, joint dysfunction, sensory deficit
- Review medications and if possible discontinue, switch, or reduce the dose of medications that can increase a patient's risk for a fall

Physical Examination — *Pay particular attention to:*

- Vital signs: postural pulse and blood pressure changes, fever, hypothermia
- Head and neck: visual impairment, hearing impairment, nystagmus, motion-induced imbalance, bruit
- Heart: arrhythmia, valve dysfunction
- Neurologic: altered mental status, focal deficits, peripheral neuropathy, muscle weakness, instability, rigidity, tremor
- Musculoskeletal: arthritic changes, motion limitations, podiatric problems, deformities
- Acute illness: infections, myocardial infarction, dehydration, anemia, etc.

Functional Assessment — Observe or inquire about:

- Functional gait and balance: observe patient rising from chair, walking (stride length, velocity, symmetry), turning, sitting down
- Mobility: use of assistive device or personal assistance, extent of ambulation, restraint use
- Activities of daily living: bathing, transferring, dressing, continence

Note: *See geriatric functional assessment form to assess these areas.*

Management and Treatment

Use the following table as a guide.

- For this patient, determine the risk factors associated with falling
- Develop intervention strategies for each risk identified
- Decide if referrals need to be made to other disciplines as part of your intervention

Summary

- What are the risk factors associated with falling in this patient?
- Develop intervention strategies for each risk identified
- Decide if referrals need to be made to other disciplines as part of your intervention

Preventing Falls: Selected Risk Factors and Suggested Interventions

Factors	Suggested Interventions
Medication-Related Factors	
Use of benzodiazepines, sedative-hypnotics, antidepressants, or antipsychotics	• Consider agents with less risk of falls and avoid if history of falls or fracture • Taper and D/C medications, as possible • Address sleep problems with nonpharmacologic interventions but if not sufficient, use correct pharmacologic intervention • Educate regarding appropriate use of medications and monitoring for adverse events
Recent change in dosage or number of prescription medications or use of ≥ 4 prescription medications or use of other medications associated with fall risk	• Review medication profile and modify, as possible • Monitor response to medications and to dosage changes
Mobility-Related Factors	
Presence of environmental hazards (e.g., improper bed height, cluttered walking surfaces, lack of railings, poor lighting)	• Improve lighting, especially at night • Remove floor barriers (e.g., loose carpeting) • Replace existing furniture with safer furniture (e.g., correct height, more stable) • Install support structures (e.g., railings and grab bars, especially in bathroom) • Use nonslip bathmats
Impaired gait, balance or transfer skills	• Refer to PT for comprehensive evaluation and rehabilitation • Gait training • Balance or strengthening exercises • If able to perform tandum stance, refer for Tai Chi, dance, yoga, or postural awareness • Provide training in transfer skills • Prescribe appropriate assistive devices • Recommend protective hip padding • Environmental changes (e.g., grab bars, raised toilet seats) • Recommend appropriate footwear (e.g., good fit, non-slip)
Impaired leg or arm strength or range of motion, or proprioception	• Strengthening exercises (e.g., use of resistive rubber bands, putty) • Resistance training 2–3 times/wk to 10 repetitions with full range of motion, and then increase resistance • Tai Chi • Physical therapy

Preventing Falls: Selected Risk Factors and Suggested Interventions (continued)

Factors	Suggested Interventions
Medical Factors	
Parkinson's disease, osteoarthritis, depressive symptoms, impaired cognition, carotid hypersensitivity, other conditions associated with increased falls	• Optimize medical therapy • Monitor for disease progression and impact on mobility and impairments • Determine need for assistive devices • Use bedside commode if frequent nighttime urination • Cardiac pacing in patients with carotid sinus hypersensitivity who experience falls due to syncope
Postural hypotension: drop in SBP ≥ 20 mm Hg (or ≥ 20%) with or without symptoms, either immediately or within 3 minutes of standing	• Review medication profile and modify, as possible • Monitor response to medications and to dosage changes
Vision impairment	• Refraction • Cataract extraction • Avoid wearing multifocal lenses while walking, particularly up stairs • Good lighting • Home safety evaluation • Mobile training for visually impaired
Hearing impairment	• Cerumen removal • Audiological evaluation with hearing aid, if appropriate

iReuben DB, Herr KA, Pacala JT, et al. Geriatrics At Your Fingertips: 2014, 16th Edition. New York: The American Geriatrics Society; 2014.

Z 5/18 CS202466