

Teachable Moment

Missed Opportunity for Fall Prevention A Teachable Moment

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Story From the Front Lines

A 76-year-old community-dwelling woman with a history of chronic obstructive pulmonary disease presented to the emergency department with hip pain after a fall. The results of imaging showed a displaced fracture of the left inferior pubic ramus. She was admitted for surgical treatment of the fracture.

When interviewed, the patient reported recurrent falls during several years. A recent hospital discharge summary included falls on her problem list, but no fall risk assessment had been performed and no interventions had been recommended. She reported being under the care of a primary care physician but denied being asked about falls.

Teachable Moment

This patient with recurrent falls experienced a debilitating fracture that might have been avoided had she been offered evidence-based fall prevention interventions. Falls are a common source of morbidity and mortality for older adults. In 2018, among adults 65 years and older, 1 in 4 reported a fall and 1 in 10 reported an injurious fall.¹ There were an estimated 35.6 million falls leading to more than 950 000 hospitalizations and 32 000 deaths in that year alone.¹ Given the substantial health burden of falls for older adults, offering interventions that reduce harm from falls is imperative.

Clinicians frequently encounter patients with a history of falls, but interventions to prevent falls remain underused. A survey study of internists² showed that 86% of respondents discussed fall risk with older patients, although fewer suggested beneficial interventions such as physical therapy (PT; 58%), exercise (46%), and/or home modification (69%).

These missed opportunities represent a failure to provide necessary care to older adults. For context, the US Preventive Services Task Force recommends that clinicians refer community-dwelling older adults who are at increased risk for falls to exercise interventions (grade B) and selectively offer multifactorial interventions that comprehensively assess and intervene on fall risk factors (grade C).³ Clinicians can improve the care of patients with a history of falls by assessing future fall risk and intervening accordingly with exercise, PT, or multifactorial interventions.

A pragmatic approach by Ganz and Latham⁴ uses an algorithm based on guidance from the American Geriatrics Society and the British Geriatrics Society. Patients at the highest risk of falling—those with recurrent (≥ 2) falls, a fall-related emergency department visit in the past year, or an overtly abnormal gait—may be appropriate for multifactorial interventions: a comprehensive assessment of fall risk factors with interventions on all identified risks. The following components of multifactorial interventions can be reasonably integrated into general practice and are supported by major guidelines and ex-

pert opinion.^{4,5} A thorough medical history of falls and a formal assessment of gait, balance, and strength, such as the Timed Up & Go Test (<https://www.cdc.gov/steady/materials.html#tabs-1-3>), should be performed. It is important to note any vestibular symptoms that commonly impair balance. A medication review can identify polypharmacy and centrally acting drugs, such as benzodiazepines and antidepressants, associated with fall risk. If there are concerns with the patient's visual acuity, referral for ophthalmic evaluation is advised. An assessment of orthostatic vital signs and screening for mood and cognitive impairments are also recommended. A discussion of home hazards and ability to perform basic activities of daily living can reveal opportunities for home evaluation by an occupational therapist. Finally, a review of comorbidities can identify less common contributors, such as foot and footwear problems, urinary incontinence, and pain.

All older adults with a history of falls should be evaluated for initiation of an exercise program. The first step is to determine whether dedicated PT or a self-guided or group exercise program is the best option to start.⁴ Patients who are frail or have apparent disturbances in gait will often require PT as a first step. Patients with difficulty rising from a chair unassisted or requiring assistive devices should also be offered PT first. Visual disturbances, vestibular or other neurologic symptoms, or musculoskeletal pain that impairs function are also conditions well suited to early consultation with PT or referral to a specialist for additional input. Patients who meet the Medicare criteria for being homebound may also qualify for home-based PT.

Patients without these challenges or those who have completed a course of PT may be suited to community or home exercise. Clinicians can use resources from the Centers for Disease Control and Prevention to identify effective community exercise programs available locally, such as Tai Chi, or they can offer home-based programs, such as Go4Life (<https://www.nia.nih.gov/health/exercise-physical-activity>) to patients who are more frail and/or prefer an individual format.^{4,5} Exercise is a cornerstone of management to prevent future falls, and its efficacy is well established. The US Preventive Services Task Force found that participation in exercise programs reduced falls by 11% (relative risk, 0.89; 95% CI, 0.81-0.97) and reduced falls with injury by 19% (incidence rate ratio, 0.81; 95% CI, 0.73-0.90),³ although many trials exclude patients with cognitive impairment.

Falls are common and complex problems that often go unaddressed in practice. However, clinicians can use a simple framework to stratify fall risk, determine if multifactorial interventions are appropriate, and recommend PT, community-based, or home-based exercise programs. Collectively, these interventions can address the frequency and burden of falls in older patients.

ARTICLE INFORMATION

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REFERENCES

1. Moreland B, Kakara R, Henry A. Trends in nonfatal falls and fall-related injuries among adults aged ≥ 65 years—United States, 2012-2018. *MMWR Morb Mortal Wkly Rep*. 2020;69(27):875-881. doi:[10.15585/mmwr.mm6927a5](https://doi.org/10.15585/mmwr.mm6927a5)
2. Burns ER, Haddad YK, Parker EM. Primary care providers' discussion of fall prevention approaches with their older adult patients—DocStyles, 2014. *Prev Med Rep*. 2018;9:149-152. doi:[10.1016/j.pmedr.2018.01.016](https://doi.org/10.1016/j.pmedr.2018.01.016)
3. Grossman DC, Curry SJ, Owens DK, et al; US Preventive Services Task Force. Interventions to prevent falls in community-dwelling older adults: US Preventive Services Task Force recommendation statement. *JAMA*. 2018;319(16):1696-1704. doi:[10.1001/jama.2018.3097](https://doi.org/10.1001/jama.2018.3097)
4. Ganz DA, Latham NK. Prevention of falls in community-dwelling older adults. *N Engl J Med*. 2020;382(8):734-743. doi:[10.1056/NEJMcp1903252](https://doi.org/10.1056/NEJMcp1903252)
5. Stevens JA, Burns ER. *A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults*. 3rd ed. CDC, NCIPC; 2015.