

Falls—Underdeveloped Opportunity to Save Lives and Prevent Injury
An Information Paper

Falls are a major public health issue, accounting for an estimated 424,000 deaths yearly, and are the second leading cause of accidental or unintentional injury deaths worldwide. Even when not fatal, approximately 37 million falls are severe enough to require medical attention annually and account for 17 million disability-adjusted life years (DALY) lost.¹

In the United States (US), falls are common, particularly among children and older adults (over 65), and there are often severe consequences among older adults. A recent CDC analysis showed that in 2014, 29 million falls occurred among older adults resulting in 2.8 million visits to the emergency department (ED). This represents 2% of ED visits. 800,000 older adults were hospitalized as a consequence of falls with 27,000 deaths in that single year. Annual Medicare costs for falls was estimated at over \$31 billion.² ED visits by older adults, even if not associated with hospitalization, are associated with functional decline, as well as the costs and morbidity related to the decline.³⁻⁴

Unfortunately, attention to assessment and prevention of falls is lacking. A recent study found that, in relation to mortality rates among the top 30 leading causes of death, falls received the least research funding. Funding for falls was orders of magnitude less than other causes of death with similar mortality rates, such as motor vehicles, poisoning, and sepsis.⁵

Interest in falls in emergency medicine is growing, with some high-quality research published in the last few years. The following resources focus on ED assessment of and prevention of falls in older adults. A few high-yield resources with links are provided in the following categories: 1) comprehensive reviews and guidelines, 2) current emergency medicine research, and 3) tools for a busy ED.

Key points from the documents:

- **Use validated fall risk assessment tools in older patient whether in ED for a fall or other problem to help prioritize referrals for fall prevention intervention**
- **The [Timed Up and Go Test](#) and the [Hendrich II Fall Risk Model](#) are quick to administer and provide a useful fall risk assessment**
- **The [STEADI toolkit](#) from the CDC provides a useful algorithm for fall risk assessment and interventions**
- **Home based fall-prevention exercise programs and targeted multifactorial interventions can lower fall rates in community-dwelling adults**
- **More research on effective ED-based assessments and intervention is needed**

Comprehensive Reviews and Guidelines

[WHO Global Report on Falls Prevention in Older Age](#)

This document provides information addressing the magnitude of the problem, prevention through active aging, determinants of active aging, prevention challenges, examples of effective policies and interventions and the WHO prevention model within this framework. World Health Organization website. Accessed May 2, 2017.

Gillespie LD, Robertson MC, Gillespie WJ, et al. [Interventions for preventing falls in older people living in the community](#). *Cochrane Database of Systematic Reviews*. 2012, Issue 9. Art No.:CD007146.

[US Preventive Services Task Force recommendation statement](#). Prevention of falls in community-dwelling older adults. National Guideline Clearinghouse. Agency for Healthcare Research and Quality. <https://www.uspreventiveservicestaskforce.org/Page/Name/home>.

Representative Recent Emergency Medicine Research

Carpenter CR, Avidan MS, Wildes T, et al. [Predicting geriatric falls following an episode of emergency department care: A systematic review](#). *Acad Emerg Med*. 2014;21(10):1069-1082.

Tirrell G, Sri-on J, Lipsitz LA, et al. [Evaluation of older adult patients with falls in the emergency department: Discordance with national guidelines](#). *Acad Emerg Med*. 2015;22:461-467.

Huded JM, Dresden S, Rowe T, et al. [Screening for fall risks in the emergency department: A novel nursing-driven program](#). *West J Emerg Med*. 2015;16(7):1043-1046.

Screening and Prevention Tools and Toolkits

[STEADI](#) Stopping Elderly Accidents, Deaths, and Injuries: STEADI Materials for Health Care Providers. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. <https://www.cdc.gov/steady/materials.html>. Accessed May 18, 2017.

[Keep Minnesotans Right Side Up](#). Minnesota Falls Prevention. <http://www.mnfallsprevention.org/>. Accessed May 18, 2017.

Hendrich A. Fall Risk Assessment for Older Adults: [The Hendrich II Fall Risk Model](#). The Hartford Institute for Geriatric Nursing, New York University, College of Nursing. 2013. Accessed May 18, 2017.

Additional References

1. Falls Fact Sheet. World Health Organization. <http://www.who.int/mediacentre/factsheets/fs344/en/>. Reviewed September 2016. Accessed May 2, 2017.
2. Bergen G, Stevens MR, Burns ER. Falls and fall injuries among adults aged ≥ 65 Years—United States, 2014. *MMWR Morb Mortal Wkly Rep*. 2016;65(37):993-998.
3. Shapiro MJ, Partridge RA, Jenouri I, et al. Functional decline in independent elders after minor traumatic injury. *Acad Emerg Med*. 2001;8(1):78-81.
4. Nagurney JM, Fleischman W, Han L, et al. Emergency department visits without hospitalization are associated with functional decline in older persons. *Ann Emerg Med*. 2017;69(4):426-433.
5. Stark DE, Shah NH. Funding and publication of research on gun violence and other leading causes of death. *JAMA*. 2017;317(1):84-85.

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