

# What's New in the Patient Safety World

July 2019

## Increasing Mortality After Falls in Elderly

Recent publications have revealed a couple disturbing trends about falls in the elderly. Hartholt et al. ([Hartholt 2019](#)) found an increasing age-adjusted trend in mortality from falls was observed among older US adults from 2000 to 2016. Mortality rates increased with age and throughout the study period, with the worst trends in the oldest age groups. Crude mortality rate increased from 51.6 per 100,000 persons in 2000 to 122.2 per 100,000 persons in 2016. Age-adjusted mortality rates among adults aged 75 years or older increased from 60.7 per 100,000 men in 2000 to 116.4 per 100,000 men in 2016 and from 46.3 per 100,000 women in 2000 to 105.9 per 100,000 women in 2016.

Another study ([Hoffman 2019](#)) found that posthospital fall-related injuries were a leading readmission diagnosis, particularly for patients originally admitted with a fall-related injury or cognitive impairment. Overall, among Medicare beneficiaries aged 65 years and older, 14.4% of index admissions resulted in readmission, with readmission rates of 12.9% for those with a previous fall and 16.0% for patients with cognitive impairment. Overall, fall-related injuries ranked as the third-leading readmission diagnosis, accounting for 5.1% of all readmission diagnoses. For those with a fall-related injury at index admission and discharged home or to home health care, fall-related injuries were the leading readmission diagnosis.

And yet another study ([Piau 2019](#)) found that some falls classified in the literature as non-injurious may nevertheless increase the risk of loss of autonomy and undesired outcomes. They found that, among falls that did not give rise to any formal healthcare intervention, 8% resulted in a modification of walking ability. Their study was a retrospective analysis of falls prospectively self-reported by older adults via an online weekly health form over four years. 62% of the falls occurred indoors and, somewhat surprisingly, 81% occurred in well-lit areas. Bedrooms were the most common places for in-home falls. Commonly observed precipitating factors included loss of balance or a slip/trip. Almost one-third of falls were defined as injurious and 22% resulted in a change in walking ability, often leading to the use of a cane or walker.

Fortunately, there is evidence that we can do something to prevent such falls in the elderly. Liu-Ambrose and colleagues ([Liu-Ambrose 2019](#)) evaluated a home-based

exercise program as a fall prevention strategy in adults aged at least 70 years who were referred to a fall prevention clinic after an index fall. Participants were randomized to receive usual care plus a home-based strength and balance retraining exercise program delivered by a physical therapist or usual care, consisting of fall prevention care provided by a geriatrician. A total of 236 falls occurred among 172 participants in the exercise group vs 366 falls among 172 participants in the usual care group (estimated incidence rates of falls per person-year were 1.4 vs 2.1, respectively). The absolute difference in fall incidence was 0.74 falls per person-year and the incident rate ratio was 0.64. No adverse events related to the intervention were reported. The authors emphasize that these results apply to secondary prevention and that studies in other clinical settings would be needed to see if such an intervention works in primary fall prevention.

In the accompanying editorial ([Pahor 2019](#)) Pahor points out that the home-based exercise program reduced the number of falls without improving physical performance measures, including the Short Physical Performance Battery and the Timed Up and Go Test, suggesting that the reduction in fall risk was mediated by mechanisms other than detectable improvements in muscle strength or physical function. He suggests that other factors, such as improvements in self-efficacy and self-controlled coping awareness, may have played a role.

#### **Some of our prior columns related to falls:**

- April 16, 2007      [“Falls With Injury”](#)
- July 17, 2007      [“Falls in Patients on Coumadin or Heparin or Other Anticoagulants”](#)
- January 1, 2008     [“Fall Prevention”](#)
- October 7, 2008    [“Lessons from Falls....from Rehab Medicine”](#)
- November 18, 2008 [“Ticket to Ride: Checklist, Form, or Decision Scorecard?”](#)
- August 4, 2009     [“Faulty Fall Risk Assessments?”](#)
- September 22, 2009 [“Psychotropic Drugs and Falls in the SNF”](#)
- December 22, 2009 [“Falls on Toileting Activities”](#)
- January 2010        [“Falls in the Radiology Suite”](#)
- June 2010            [“Seeing Clearly a Common Sense Intervention”](#)
- May 29, 2012        [“Falls, Fractures, and Fatalities”](#)
- June 5, 2012        [“Minor Head Trauma in the Anticoagulated Patient”](#).
- January 15, 2013    [“Falls on Inpatient Psychiatry”](#)
- March 2013          [“Sedative/Hypnotics and Falls”](#)
- December 3, 2013   [“Reducing Harm from Falls on Inpatient Psychiatry”](#)
- June 2014            [“New Glasses and Fall Risk”](#)
- July 8, 2014         [“Update: Minor Head Trauma in the Anticoagulated Patient”](#)
- August 2014         [“Cataract Surgery and Falls”](#)
- November 4, 2014   [“Progress on Fall Prevention”](#)
- March 2015          [“Another Paradox: Falls Due to Walking Aids”](#)
- June 9, 2015         [“Add This to Your Fall Risk Assessment”](#)

- July 28, 2015 “[Not All Falls Are the Same](#)”
- October 2015 “[Patient Perception of Fall Risk](#)”
- October 27, 2015 “[Sentinel Event Alert on Falls and View from Across the Pond](#)”
- February 16, 2016 “[Fall Prevention Failing?](#)”
- March 14, 2017 “[More on Falls on Inpatient Psychiatry](#)”
- July 2017 “[Mobility vs. Falls](#)”
- February 2018 “[Global Sensory Impairment and Patient Safety](#)”
- February 20, 2018 “[Delirium and Falls](#)”
- March 2019 “[Newborn Falls](#)”

## References:

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Liu-Ambrose T, Davis JC, Best JR, et al. Effect of a Home-Based Exercise Program on Subsequent Falls Among Community-Dwelling High-Risk Older Adults After a Fall. A Randomized Clinical Trial. JAMA 2019; 321(21):2 092-2100 June 4, 2019  
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