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The Tension Between Promoting Mobility and Preventing Falls in the Hospital

Matthew E. Growdon, MD, MPH^{1,2}, Ronald I. Shorr, MD, MS³, and Sharon K. Inouye, MD, MPH^{4,5}

¹Department of Medicine, Brigham and Women's Hospital, Boston, MA

²Department of Population Medicine, Harvard Medical School, Boston, MA

³GRECC (182), Malcom Randall VAMC and Department of Epidemiology, University of Florida, Gainesville, FL

⁴Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

⁵Aging Brain Center, Institute for Aging Research, Hebrew SeniorLife, Boston, MA

When older adults are hospitalized, there is an inherent tension between preventing falls and promoting mobility. In response to public and professional attention to medical errors, federal policy and, in turn, hospital culture have strongly prioritized preventing falls, with potential unintended consequences for patient mobility, functional ability, and well-being.¹ It has been known for years, however, that patient immobility in the hospital contributes to undesirable outcomes, such as increased rates of functional decline and institutionalization.

In 2007, the Centers for Medicare and Medicaid Services (CMS) sought to identify conditions that resulted in higher Medicare costs and that could be prevented with evidence-based care. In 2008, the CMS enacted new payment provisions that would no longer reimburse hospitals for a higher-paying diagnosis-related group resulting from eight hospital-acquired conditions (HACs), including falls with injury. In 2010, the Affordable Care Act established a program to reduce hospital-acquired conditions, which levied financial penalties on hospitals ranking in the lowest quartile for HAC measures.

Although falls with injury should, of course, be avoided in the hospital, current fall prevention efforts reflect a troubling underlying assumption that keeping patients from moving can stop such falls. Since 2007, there has been a national epidemic of immobility

Corresponding Author: Sharon K. Inouye, MD, MPH, Aging Brain Center, Institute for Aging Research, Hebrew SeniorLife, 1200 Centre Street; Boston, MA 02459 USA, sharoninouye@hsl.harvard.edu (not for publication), email for publication: AgingBrainCenter@hsl.harvard.edu, Phone: (617) 971-5390; Fax (617) 971-5309.

Author Contributions:

Growdon: acquisition or interpretation of data, critical revision of manuscript, administrative or technical support, literature review.

Shorr: acquisition or interpretation of data, critical revision of manuscript, technical support.

Inouye: conception or design, drafting of manuscript, critical revision of manuscript, administrative support, supervision.

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Dr. Inouye reports that she is a developer of the Hospital Elder Life Program but has no financial interest in the program; the program is available free of charge to any hospital. Dr. Growdon and Dr. Shorr have no involvement in the program.

among hospitalized older adults. According to a 2009 estimate, hospital patients spend over 95% of their time in bed.² In-hospital immobility is one of several factors theorized to give rise to the “post-hospital syndrome,” a transient state of heightened vulnerability following hospitalization that is associated with an increased risk of functional decline, medical adverse events, and hospital readmission. Many hospitals now routinely use bed and chair alarms as a part of their fall prevention programs³, which in turn further restrict mobility. Applied even to those with low or moderate risk of falls, bed alarms provoke patient reactions such as, “I feel like I’m in jail. I can’t sit up or go to the bathroom without them coming after me.”⁴

Are hospital falls with injury decreasing in the United States? Between 2007 and 2010, a study found no evidence of a significant reduction in injurious falls.⁵ In fact, there is only limited, methodologically flawed evidence to suggest that widely used fall prevention programs prevent injurious falls.³ These programs generally involve risk assessment and implementation of nursing interventions, such as the frequent usage of bed and chair alarms, posting signs indicating fall risk, educational interventions with patients and families, and assisted toileting. Published evaluations of the efficacy of specific programs have been limited by lack of concurrent control groups, inadequate control for confounders, and short follow-up. A cluster-randomized trial, published in 2016 and employing a multi-component intervention strategy in six Australian hospitals, found no significant reduction in falls or falls with injuries.⁶ In a randomized controlled trial published in 2012, bed and chair alarms were found to be ineffective at reducing falls, and the authors suggested that they may contribute to nursing stress in the form of alarm fatigue and to higher healthcare costs.⁷ Evaluating the risks and benefits of other interventions for fall prevention, such as bed rails, chairs that immobilize patients, and the use of sitters to monitor patients, has been difficult as these interventions are not routinely reported across hospitals. Our current system of “keeping score” of falls has created a strong disincentive for mobilizing patients. In our experience, nursing staff and aides have become fearful of getting patients out of bed, due in part to the risk of lawsuits and to institutional cultures driven to avoid any financial penalties. Notably, although hospitals are penalized financially only for falls which result in injuries, they do not always collect data that can prospectively separate injurious from non-injurious falls.

Promoting mobility in the hospital may actually help to prevent injurious falls, thus calling into question the practice of immobilizing patients for the sake of fall prevention. The strongest evidence comes from the Hospital Elder Life Program (HELP), which enhances mobility while decreasing falls. HELP, which one of us helped to design, is a multicomponent program to prevent delirium, a leading risk factor for hospital falls, and includes volunteer-based walking and mobility activities. A recent systematic review, of which one of us was an author, found that delirium prevention models based on the HELP program had efficacy for the prevention of in-hospital falls.⁸ Implementation of HELP programs has been associated with decreasing delirium, cognitive and functional decline, length of stay, hospital costs, and institutionalization.⁸ Prevention of hospital falls need not come at the expense of promoting mobility.

Other recent studies have demonstrated the feasibility and effectiveness of hospital mobility programs. A randomized, controlled trial, reported in 2016, found that a structured mobility program, involving assistance with ambulation up to twice daily and a behavioral strategy to encourage mobility, was associated with the ability of patients to maintain their pre-hospitalization community mobility one month following discharge.⁹ Although this study was not powered to assess falls as an outcome, there were fewer in-hospital falls in the intervention group compared to the usual care group. For hospitalized older adults on a medical ward, supervised daily walking with a recreation therapy assistant and a balance assessment program were associated with an increased rate of being discharged to home rather than to a skilled nursing facility.¹⁰

Although hospital falls can lead to harm, treating them as “never events” has led to over-implementation of measures with little efficacy for falls yet profound contribution to immobility. Promoting mobility in the hospital while preventing falls aligns well with the broader healthcare missions of maintaining quality, decreasing costs, and enhancing patient-centered care. The CMS should develop quality measures that promote mobility as part of routine clinical care, such as early mobilization protocols for hospital staff, mobility aides, and trained volunteers. Associated process measures might focus on documentation of number of times patients are out of bed or episodes of ambulation per nursing shift. In addition, the frequency of bed or chair alarm use should be systematically captured in the electronic medical record, so that such factors that lead to immobilizing patients can be considered in the context of efforts to mobilize patients. As an alternative to use of bed alarms, the use of accelerometers, small devices that can be worn by a patient and quantify biomechanical body movement and number of steps per shift, should be promoted. Fall prevention teams at hospitals could be transformed into mobility teams. Patient-centered outcome measures could include surveys eliciting patients’ experiences with practices related to preventing falls and promoting mobility. As more data regarding mobility are systematically collected, it will be important to ensure that current fall prevention metrics are adjusted to reflect the counterbalancing benefits of increased mobility. Together, such practice and policy changes should shine a bright light on the false dichotomy between fall prevention and the promotion of mobility.

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