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The Need for Uniform Quality Reporting across Post-acute Care Rehabilitation Settings: An Examination of Accidental Falls

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To the Editor: A fall event can limit a patient's ability to make functional gains and safely return home, two of the primary goals of rehabilitation services.[1] Public reporting of falls, which are a Medicare "Never Event,"[2] is not mandated in all post-acute care (PAC) rehabilitation settings. Consequently, little is known about the similarities or differences in the occurrence of this adverse event and its risk factors in these settings. Thus, stakeholders

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do not have important information necessary to make informed decisions about PAC service utilization. This study utilized a unique dataset to examine variations in accidental falls and risk factors among PAC patients receiving rehabilitation services in skilled nursing facilities (SNF), inpatient rehabilitation facilities (IRF), and home health agencies (HHA).

Methods: This prospective cohort study evaluated data from 576 Medicare beneficiaries admitted to PAC rehabilitation after an acute hospitalization with a primary diagnosis of a stroke, hip fracture, or joint replacement. Data were collected using a standardized assessment protocol utilized within 48 hours of admission and discharge; details have been described elsewhere.[3] The primary outcome for this study was the occurrence of a fall reported during the PAC stay. Data on fall status was available for 520 patients. Additional study variables included patient demographics, fall risk factors, and mobility device use.

Results: Twenty-seven patients (5.2%) had a fall during their PAC stay. Falls occurred most often among patients with stroke (10%; 12/119), followed by those who experienced hip fracture (6%; 10/173), and joint replacement (2%; 5/228). While falls occurred most commonly among SNF patients, falls occurred differentially by setting and diagnosis. For example, among IRF patients, more stroke patients fell, whereas among HHA patients, more joint replacement patients fell (see Figure 1). Risk factors for falls were similar to those reported in the literature. Falls occurred more often among patients with urinary incontinence ($p<0.001$) and depression ($p<0.001$), and poorer mobility ($p<0.05$), impaired balance ($p<0.01$), and cognitive limitations ($p<0.001$). Assistive mobility device use was more common among non-fallers. Walker/cane use was reported for 85% of non-fallers and 63% of fallers. Bedrail use was reported for 64% of non-fallers and 20% of fallers.

Discussion: In PAC rehabilitation, an accidental fall is a sentinel event that diminishes the rehabilitation patient's ability to achieve desired goals.[4, 5] This study demonstrated that falls do occur across PAC settings and there may be differential rates of falls by diagnosis and setting. Disparate quality reporting of falls prevents transparency and leaves stakeholders ill equipped to make decisions about the best setting to receive PAC. Currently Medicare requires falls be reported by nursing homes (but not SNFs); HHAs report falls and fall prevention quality measures; IRFs are not required to report any fall quality measures. [6] In the context of escalating PAC costs, concerns about health care quality, and a growing emphasis on patient engagement, there is a need for consistent and accurate public reporting of rehabilitation-relevant quality indicators across all PAC settings.

Interventions targeting the modifiable risk factors for *Never Events* in acute care hospitals have resulted in \$4 billion dollars in healthcare savings.[7] Following this success in acute care, it is imperative to implement evidence-based strategies targeting modifiable risk factors to prevent falls in PAC. As other studies have found,[8, 9] most fall risk factors among rehabilitation patients are potentially modifiable (e.g., mobility and balance limitations associated with a diagnosis of stroke or hip fracture, urinary and fecal incontinence, altered mood, pressure ulcers, and deterioration in cognition). Additionally, since fallers were less often documented as having assistive devices (including walkers/canes and bed rails, which are associated with the prevention of falls) research is needed to understand clinicians' rationale and other factors affecting the provision of mobility devices

and bed rails in PAC. For example, confusion regarding federal restraint policies may have led to restrictions on the use of bedrails to facilitate mobility in nursing homes.[10]

Study limitations: The falls data in this study were abstracted from patient medical charts; it is uncertain to what extent different public reporting requirements may have affected the documentation of falls and mobility device use in patient records across the various PAC settings. Moreover, fall rates in this study (5.2%) were lower than other studies examining falls in a single PAC setting,[4, 9] which may be due to the facility sample or reporting bias.

In conclusion, integrating falls prevention strategies into the plan of care to ameliorate modifiable risks is critical for improving the quality of post-acute rehabilitation. Fall occurrence and prevention strategies should be integral metrics in post-acute quality reporting programs.

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Figure 1.
Frequency of Accidental Falls by Post-Acute Care Setting