Background

Approximately one million falls occur in U.S. hospitals annually.1 The one-fourth that result in injury are hospital-acquired conditions (HACs) for which the Centers for Medicare and Medicaid Services no longer provide reimbursement. As compared to other HACs, little progress has been made in decreasing fall-related injuries (Figure 1).2 Because falls are multifactorial in etiology, evidence indicates that interprofessional teams are most likely to sustain successful inpatient fall risk reduction programs.3,4 However, little evidence exists regarding the effectiveness of individual fall risk reduction interventions or the role of the physical therapist in fall risk reduction in the acute care setting.

Integrating physical therapists into fall risk reduction at the organizational level changes the structure and process of this patient safety outcome. According to Donabedian’s quality assessment framework (Figure 2), an outcome of care is determined by the structure and process. Structure refers to how care is organized, delivered, and financed and includes human resources, equipment, and policies. Because the structure of care is consistent with the capacity for work, it is a predictor of the average quality of care a system can deliver. Process refers to tasks performed that are intended to produce an outcome. Donabedian’s framework is an explanatory theory that explains how organizational changes will lead to a desired improvement.5

Research Question

What is the association between common fall risk reduction interventions and inpatient fall-related injury?

Significance/Relevance

Little is known about the association between safe transfer/mobility techniques and fall-related injury in the acute care setting. With their specialized knowledge of the human movement system and training in the psychometric properties of measurement, physical therapists can collaborate at the patient level and organizational level to decrease inpatient fall risk and fall-related injury.

Methods

Coordinating Team

Made up of professionals with complementary skills needed to standardize the structures and processes of the fall risk reduction program and plan for implementation.

Core Team

Healthcare professionals who provide direct patient care are accountable to coordinating team for reliably implementing standardized interventions.

Contingency Team

Members from various teams conduct post-fall huddles to adjust the care plan in real time.

Findings

• Total and injurious falls/1000 patient days decreased during the 2-year project despite an emphasis on keeping the number of patients and more rigorous definitions of injury during the intervention.

• Coordinating team effectiveness in implementing 16 organizational level fall risk reduction programs (standardize an plan) was significantly and negatively associated with fall rates.

• Assisted falls were significantly less likely to result in injury than unassisted falls.

• All other factors being equal, 12 common interventions were only one that was significantly associated with falling unassisted was the absence of gait belts used as an intervention (Table 1).

• All other factors being equal, 12 common interventions, the only one that was significantly associated with fall-related injury was falling unassisted without a gait belt in use (Table 2).

Findings/Conclusions

What can physical therapists do to improve the structure and process of fall risk reduction by training direct care staff in safe transfer/mobility techniques and conducting audits to ensure reliable implementation of the fall risk reduction program and plan for implementation? After adjusting for patient characteristics and the presence of other common interventions, use of gait belts improved the odds of a fall being assisted and decreased the odds of a fall resulting in injury. Physical therapists should expand their role in the acute care setting to include population management as members of interprofessional fall risk reduction coordinating and contingency teams.

References


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