

# Tailoring Education to Perceived Fall Risk in Hospitalized Patients With Cancer: A Randomized, Controlled Trial

Megan L. Kuhlenschmidt, BSN, RN, OCN®, Christina Reeber, BSN, RN, OCN®, Christine Wallace, MSN, RN, ACNS-BC, PCCN, Yanwen Chen, PhD, MS, Jill Barnholtz-Sloan, PhD, and Susan R. Mazanec, PhD, RN, AOCN®



© iStock.com/Angela Schmidt

**Background:** Patients with cancer carry a higher risk for falls, potentially resulting in increased morbidity, mortality, and financial costs, as well as lower quality of life. Few evidence-based interventions are tailored to the patient's perception of risk for falls.

**Objectives:** This study aimed to determine the effect of tailored, nurse-delivered interventions as compared to a control group on patient perception of risk for falls, confidence in fall prevention, and willingness to ask for assistance.

**Methods:** A two-group, prospective, randomized, controlled design was used to test the intervention in a convenience sample of 91 patients on an adult bone marrow transplantation unit. The intervention consisted of video and printed education tailored to the nurse's risk assessment and the patient's perception of risk. Patient's self-reported perception, confidence, and willingness were measured at three time points: after consent within 24 hours of admission and at 24 and 72 hours after consent. The analysis consisted of a paired McNemar's test stratified by intervention versus control group to examine differences between the groups.

**Findings:** About one-third of patients perceived themselves to be at low risk for falls despite a nurse rating of high risk. A statistically significant difference existed in the proportion of patients who perceived themselves to be at high risk for falls pre- and postintervention ( $p = 0.01$ ). Results suggest that tailoring education to the patients' perceived risk for falls can help patients become more aware of fall risk.

Megan L. Kuhlenschmidt, BSN, RN, OCN®, is a senior clinical nurse, Christina Reeber, BSN, RN, OCN®, is a care coordinator, and Christine Wallace, MSN, RN, ACNS-BC, PCCN, is a clinical nurse specialist, all in the Seidman Cancer Center at the University Hospitals Case Medical Center; and Yanwen Chen, PhD, MS, is a biostatistician in the School of Medicine, Jill Barnholtz-Sloan, PhD, is the associate director for bioinformatics and an associate professor in the School of Medicine, and Susan R. Mazanec, PhD, RN, AOCN®, is an assistant professor in the Frances Payne Bolton School of Nursing, all at Case Western Reserve University, all in Cleveland, OH. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Kuhlenschmidt can be reached at [megan.kuhlenschmidt@uhhospitals.org](mailto:megan.kuhlenschmidt@uhhospitals.org), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org). (Submitted March 2015. Revision submitted May 2015. Accepted for publication May 7, 2015.)

Key words: cancer; fall prevention; hospitalized falls; falls intervention

Digital Object Identifier: 10.1188/16.CJON.84-89

Falls in hospitalized patients are associated with poorer quality of life, greater disability, longer hospital stay, increased resource use, and greater risk of institutionalization (Hill et al., 2009). Falls are devastating to patients, family members, providers, and the healthcare system, with 34% of falls leading to injury (Fisher, Davis, McLean, & Le Couteur, 2005). Falls are defined as an unplanned descent to the floor that results from physiologic or environmental reasons and may occur with or without injury

(Press Ganey Associates, Inc., 2015). The national average is 3.34 falls per 1,000 patient care days (Press Ganey Associates, Inc., 2015). During the past year, the falls rate on the inpatient bone marrow transplantation unit at the Seidman Cancer Center of University Hospitals Case Medical Center in Cleveland, Ohio, was an average of 3.2 per 1,000 patient care days. Of particular concern was that 8 of the 24 falls on the bone marrow transplantation unit in 2013 led to injury, which required additional treatment.