■ Online Exclusive Article

Validation of Predictors of Fall Events in Hospitalized Patients With Cancer

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Background: A seven-item cancer-specific fall risk tool (Cleveland Clinic Capone-Albert [CC-CA] Fall Risk Score) was shown to have a strong concordance index for predicting falls; however, validation of the model is needed.

Objectives: The aims of this study were to validate that the CC-CA Fall Risk Score, made up of six factors, predicts falls in patients with cancer and to determine if the CC-CA Fall Risk Score performs better than the Morse Fall Tool.

Methods: Using a prospective, comparative methodology, data were collected from electronic health records of patients hospitalized for cancer care in four hospitals. Risk factors from each tool were recorded, when applicable. Multivariable models were created to predict the probability of a fall. A concordance index for each fall tool was calculated.

Findings: The CC-CA Fall Risk Score provided higher discrimination than the Morse Fall Tool in predicting fall events in patients hospitalized for cancer management.

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The paramount goal of maintaining patient safety in acute care settings led to several hospital, state, and federal initiatives designed to reduce hospital-acquired injuries, including prevention and reduction of patient falls. The National Quality Forum (2011) has listed 29 sentinel (never) events, that are defined as universally preventable adverse occurrences that should never occur in the hospital setting. When hospital organizations have a patient death or serious injury associated with a fall, they meet the criteria for a never event (Agency for Healthcare Research and Quality, 2016). In 2007, the Centers for Medicare and Medicaid Services (2015) announced that they would no longer pay for additional costs associated with falls with injury.

Despite penalties in reimbursement and a Joint Commission mandate for fall assessment and periodic reassessment in acute care settings, sentinel events because of fall injuries continue to occur, and fall events in hospital settings remain a problem. In a systematic review of U.S. hospitals, the number of falls ranged from 1–9 per 1,000 patient days (Miake-Lye, Hempel, Ganz, & Shekelle, 2013). A study looking at trends in fall rates from 2004–2009 determined that acute care hospitals had 3.29–3.77 falls per 1,000 patient days; in addition, when fall trends were assessed, fall rates were generally stable or declined modestly but were higher on surgical units (He, Dunton, & Staggs, 2012).

Fall rates may need to be assessed per specific patient population. Identifying patient population–specific predictors of falls may be important. When nurses assessed the relationship between fall occurrences and fall risk scores in patients with diabetes, heart failure, and stroke, they learned that tool accuracy varied based on diagnosis and was not