IDENTIFYING FALL RISK IN PATIENTS RECEIVING HEMATOPOIETIC CELL TRANSPLANT

A. Rindflesch, M. Hake, T. Meyer, R. Murphy, M. Olson, K. Uphoff

Mayo Clinic

No Funding

The researchers have complied with the protection of the records of the subjects participating in this project and have also received institutional review board approval to complete this study.

BACKGROUND AND PURPOSE: Fall-risk assessment tools, such as the Hendrich II Fall Risk Model (HFRM II), are utilized in hospital settings to screen patients for potential falls. However, little research has been completed regarding these tools and their ability to predict falls in patients undergoing Hematopoietic Cell Transplant (HCT). The purpose of this study was to analyze the relationship between the HFRM II and patients who fell following HCT as well as to identify other risk and complicating factors.

METHODS AND MATERIALS: This study used a retrospective design in which forty-seven patients (mean age=56.49) who experienced a fall within one-hundred days following HCT were identified from a hospital database. Each subject was control-matched by date of transplant with two patients who did not fall (mean age=59.31). Data collection from the hospital charts included demographics, HFRM II score, vitals and laboratory values.

ANALYSES: Independent-samples t-tests were performed to determine whether or not there was a statistically significant difference in the HFRM II score for those who fell compared to those who did not fall. A logistic regression analysis was conducted to determine the odds of falling after allogenic versus autogenic HCT.

RESULTS: The difference in mean score on the HFRM II was statistically significant when comparing patients who fell (x̅=5.36) to those who did not fall (x̅=3.41; t=4.510, p<.001). Additionally, pulse rates were higher among fallers (x̅=100.09) than non-fallers (x̅=88.70; t=3.398, p=.001). Furthermore, patients with an allogenic transplant were 3.5 times more likely to have fallen than those with an autogenic transplant (OR=3.46, p=.007).

CONCLUSIONS: Following HCT, patients who scored higher on the HFRM II, had a higher pulse rate, and underwent an allogenic transplant were more likely to fall.

IMPLICATIONS: Healthcare providers should be aware of these fall risk factors in patients undergoing HCT in order to implement targeted fall prevention interventions and improve patient outcomes.