Autologous Stem Cell Transplantation

The predictive value of the Morse Fall Scale in hospitalized patients

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BACKGROUND: Falls are common in hospitalized patients undergoing autologous stem cell transplantation (ASCT). Research demonstrates that preventing patient falls requires knowledge of the risk factors and the circumstances preceding the patient’s fall.

OBJECTIVES: To identify risk factors related to falls in recipients of ASCT and assess the predictive value of the Morse Fall Scale (MFS).

METHODS: Of the 288 patients who underwent transplantation during the study period, 14 were fallers. Twenty controls were randomly selected. The study used descriptive case-control analysis and simple logistic regression to analyze the data.

FINDINGS: Eight fallers and four non-fallers had high MFS scores. The logistic regression model indicated that patients with high MFS scores were 5.3 times more likely to fall and that for each day patients experienced diarrhea, their risk of fall increased 1.2 times.

Patient Falls

Fall-related injuries during hospitalization may lengthen a patient’s stay, and falls may be a burden in terms of reduced quality of life and increased healthcare costs (Nassar, Helou, & Madi, 2014). A systematic review by Heinrich, Rapp, Rissmann, Becker, and König (2010) found that fall-related expenses in the United States were higher per patient per year (2,073 U.S. dollars [USD] per purchasing power parities [PPP]) than in Finland (1,059 USD per PPP) or Sweden (1,608 USD per PPP). Clinically, nurses play a significant role in preventing falls and improving patient safety. Patient falls are a nursing performance indicator, as listed by the National Database of Nursing Quality Indicators (n.d.), a quality improvement program that measures improvement efforts of nursing care in relation to patient outcomes. However, studies on falls often take place in general settings, and the results of these studies reflect the variations in fall cause by setting (see Table 1).

The chemotherapy drugs that patients receive following a diagnosis of cancer may compound other fall risk factors. Spoelstra et al. (2013) reported a