

# Sleep Disturbance in Hospitalized Recipients of Stem Cell Transplantation

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Disrupted sleep is considered a patient outcome sensitive to oncology nursing care and can lead to a variety of physical and psychologic dysfunctions, such as insomnia, chronic pain, respiratory distress, obesity, stress, and anxiety. Although sleep disturbances have been studied in recipients of hematopoietic stem cell transplantations (HSCTs), these studies have not examined the acute phase of transplantation. The current study aimed to identify the level of sleep disturbance in this patient population, identify factors contributing to decreased ability to sleep for hospitalized recipients of HSCT, and compare the differences in sleep disturbance between age, gender, type of transplantation, and initial stem cell transplantation versus readmission for transplantation-associated complications. Among the 69 patients studied, 26% reported clinical insomnia, as measured by the Insomnia Severity Index, and 74% had some degree of insomnia. Patient characteristics were not significantly associated with insomnia scores. Patients reported bathroom use as the most frequent reason for sleep disruption (85%). These findings suggest that sleep disturbances are common in hospitalized patients undergoing HSCT, and strategies to reduce disruptions are needed to improve patient outcomes.

**O**ncology nurses, including nurses in the hematopoietic stem cell transplantation (HSCT) unit, become experts in the practice of holistic assessment and the management of cancer symptoms and their treatments. Assessment skills are established by oncology nurses and fine-tuned through experience. Nurses have the distinct ability to influence patient-centered outcomes such as cancer and treatment-related symptoms (Given & Sherwood, 2005). In the HSCT recipient population, the threat of disturbed sleep from lengthy hospitalization, multiple medications and fluids, unfamiliar surroundings, and environmental influences is an area nurses can and should improve to better the patient experience.

## Background

Sleep is an essential component of a healthy life. Disrupted sleep can lead to a variety of physical and psychological dys-

### At a Glance

- ◆ Sleep disturbances are understudied in recipients of hematopoietic stem cell transplantations (HSCTs).
- ◆ In a sample of 69 adults undergoing HSCT for hematologic malignancies, the majority reported some degree of insomnia as measured by the Insomnia Severity Index.
- ◆ Toileting needs and staff interruptions are areas to improve practice and promote sleep quality in this population.

functions, including insomnia, chronic pain, respiratory dysfunction, obesity, stress, and anxiety (Friese, 2008). Patients with cancer often are affected by side effects such as pain or depression that can manifest as insomnia. They also can experience sleep deprivation from side effects of the treatment, such as anemia, daytime fatigue, and the physiologic

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