Nocturnal Awakenings, Sleep Environment Interruptions, and Fatigue in Hospitalized Children With Cancer

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Key Points . . .

➤ Actigraphy is an accurate and low-burden method to noninvasively monitor nocturnal awakenings and sleep duration in children and adolescents who are hospitalized for as many as four days and nights for scheduled chemotherapy.

➤ Fewer nocturnal awakenings and sleep environment interruptions could improve sleep quality and lower hospital-related fatigue in hospitalized pediatric patients with cancer.

➤ Children and adolescents hospitalized for scheduled chemotherapy can experience as many as eight times the number of nocturnal awakenings that healthy children in their home sleep environments experience.

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leep has a restorative function for children and adolescents because it provides a period of increased protein synthesis, cellular division, and growth hormone release that contributes to tissue renewal (Adam & Oswald, 1983; Lee & Stotts, 1990; Spenceley, 1993) and compensates for energy deficits acquired during daily functions (Amschler & McKenzie, 2005; Green, 1998; Hartmann, 1973). Hospitalized pediatric patients and their parents have reported that disruptions to patients’ usual sleep patterns (delayed, prevented, or interrupted rest or sleep) occur to such an extent that hospital-related fatigue results and, in turn, patients’ overall health status is affected negatively, even during brief hospital stays. Bed rest and sleep interruptions are two major disruptions to patients’ typical daily functioning that occur during hospitalization. Combined, the two factors also contribute to hospital-related fatigue, immunosuppression (Palmblad, Petrini, Wersman, & Akerstedt, 1979), anorexia, inability to concentrate (Fallone, Acebo, Arnedt, Seifer, & Carskadon, 2001), muscle wasting (al-Majid & McCarthy, 2001), and slowed physical healing (Corser, 1996). Accordingly, hospitalized children...