

FEATURE ARTICLE

Keeping Patients Safe: An Interventional Hand Hygiene Study at an Oncology Center

Jeanne H. Siegel, MSN, ARNP, BC, and Denise M. Korniewicz, PhD, RN, FAAN

Healthcare-associated infections (HCIs) continue to affect patient morbidity and mortality and contribute to the rising cost of health care. Factors associated with the rise of HCIs in patients with cancer may include an increase in antimicrobial resistance and treatment effects of radiation and chemotherapeutic agents. Infection control and prevention practices can decrease infection rates among patients with cancer. In an effort to reduce HCIs and increase awareness, an interventional study was conducted at an oncology center to investigate hand hygiene compliance of healthcare professionals before and after the introduction of a handheld sanitizer spray. Although healthcare professionals had a positive response to the spray, it did not improve compliance rates.

Successful treatment methods for cancer have contributed to a growing number of immunocompromised patients at risk for life-threatening healthcare-associated infections (HCIs) that continue to contribute to morbidity, mortality, and escalating costs in healthcare settings (Williams-Brown & Singh, 2005). Each year, an estimated 2 million–2.5 million patients in the United States develop HCIs that result in 90,000 deaths and cost the healthcare system an estimated \$4.5 billion–\$5.7 billion (Burke, 2003). Several authors (Guinan, McGuckin, & Nowell, 2003; O’Grady et al., 2002) have suggested that HCI rates have increased in the general population of patients with cancer because of increased antimicrobial resistance and treatment effects of radiation and chemotherapeutic agents. Additional factors include compromised immune systems, multiple insertions of catheters and drains, and the healthcare environment (Guinan et al.).

An epidemiologic study of bloodstream infections found that patients with non-neutropenic cancer experienced 68% of HCIs (Velasco et al., 2000). In addition, the study demonstrated that an emphasis on strict infection control and prevention can reduce severe infectious complications for patients with cancer (Velasco et al.). In an effort to reduce the incidence and prevalence of nosocomial infections among patients with cancer, the Oncology Nursing Society (ONS) joined with other multidisciplinary working groups to make recommendations associated with catheter-related HCIs and developed evidence-based guidelines for patients with cancer (O’Grady et al., 2002). The guidelines can help oncology nurses to better understand the need for increased awareness of HCIs.

Nosocomial infections continue to be of concern among healthcare workers in acute-care settings. In a study by Cohen, Harle, Woll, Despa, and Munsell (2004), oncology nurses identi-

At a Glance

- ◆ Healthcare-associated infections (HCIs) continue to affect patient morbidity and mortality and contribute to the rising cost of health care.
- ◆ Healthcare professionals should use a hand hygiene product before and after clinical procedures to reduce the risk of HCIs.
- ◆ Healthcare professionals should be involved in clinical research associated with hand hygiene compliance.

fied infection rates as second only to pain as an area to target in nursing interventions for patients with cancer. Furthermore, the American Nurses Association (2007) identified nosocomial infection rates as an outcome that nurses can affect in acute-care settings. Evidence-based practice outcomes associated with nurse staffing, adequate hand hygiene compliance, and improved surveillance of HCI rates can improve patient care overall and decrease HCIs. To reduce the risk of HCIs among patients with cancer, a systematic approach to infection control,

Jeanne H. Siegel, MSN, ARNP, BC, is a doctoral candidate and instructor and Denise M. Korniewicz, PhD, RN, FAAN, is a professor and senior associate dean for research, both in the School of Nursing and Health Studies at the University of Miami in Florida. Partial funding for this study was provided by Packaging Concepts Association, LLC. (Submitted December 2006. Accepted for publication July 23, 2007.)

Digital Object Identifier: 10.1188/07.CJON.643-646