

# Informal Caregivers' Knowledge and Practice of Caring for Neutropenic Patients

Gulcan Bagcivan, PhD, Burcu Masatoglu, and Zeliha Topcu

Cooperation of informal caregivers on neutropenic patient care is very important. This descriptive study includes interviews with 100 informal caregivers of inpatients who became neutropenic at least two days previously. Data were collected through face-to-face interviews on informal caregivers' knowledge and practice of caring for patients with neutropenia. The authors found that some rules, such as washing hands and attention to personal cleaning, were known and practiced; other rules, such as having a bath every other day, were less well known.

## At a Glance

- Caregivers should be provided with regular training and standard education programs.
- Informal caregivers should be observed when engaged in their routines to assess whether their practice is appropriate in neutropenic patient caring, and nurses should check whether or not their recommendations are being applied and ensure any deficiencies are addressed.
- The verbal instruction provided by nurses for caregivers does not include enough information about care for neutropenic patients.

Gulcan Bagcivan, PhD, is a lecturer, and Burcu Masatoglu and Zeliha Topcu are students, all in the School of Nursing at the Gülhane Military Medical Academy in Ankara, Turkey. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. No financial relationships relevant to the content of this article have been disclosed by the authors or editorial staff. Bagcivan can be reached at [gulcan\\_408@hotmail.com](mailto:gulcan_408@hotmail.com), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org).

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The North American Nursing Diagnosis Association (Bulechek, Butcher, Dochterman, & Wagner, 2013) approved "infection risk" as a nursing diagnosis that should be taken into consideration for all neutropenic patients. To educate patients and their caregivers about rules for the prevention of infections and to ensure safe practice, nurses should institute the priority nursing intervention of "risk of the infection." Cooperation of informal caregivers on neutropenic patient care is very important, and it depends on the knowledge of informal caregivers.

## Background

Neutropenic individuals are at increased risk of infection for several reasons. First, the immune system is compromised, either as a result of disease, such as acute leukemia, or as a result of treatment, such as chemotherapy or immunosuppression following transplantation. Second, bacterial translocation from the gut to the lymph nodes, bloodstream, liver, and spleen has been shown to increase in neutropenic patients (Lyman, Abella, & Pettengell, 2014). Finally, antibiotic use, antacids, protein malnutrition, and bowel obstruction

have been shown to lead to bacterial overgrowth in patients with cancer (Siegel, Rhinehart, Jackson, & Chiarello, 2007). Complications also result in chemotherapy dose reductions or treatment delays, which may compromise clinical outcomes (Lyman et al., 2011). Neutropenia-related complications place a substantial burden on the healthcare system, with inpatient cost estimates ranging from \$7,100–\$19,100 per neutropenia-related hospitalization (Stokes et al., 2009). Neutropenic patient care is an important issue for managing complications that are linked with neutropenia and shortening of neutropenia duration. Guidelines about neutropenic patient care from the Centers for Disease Control and Prevention (CDC, 2015), the European Oncology Nursing Society, the Oncology Nursing Society, the National Institute for Health and Care Excellence (2012), and others have been published (Eggenberger, Krumwiede, Meiers, Bliesmer, & Earle, 2004; Marrs, 2006; Nirenberg et al., 2006; Tomblyn et al., 2009). Based on these guidelines, suggestions on neutropenic patient care are included in Figure 1.

Although guidelines indicate that informal caregivers have an important role in preventing infections in neutropenic patients, few studies exist about knowledge and practice of neutropenic patient care by informal caregivers. This study aimed to describe the knowledge and practices of informal caregivers on neutropenic patient care.

## Methods

This descriptive study was conducted in the Department of Hematology/Medical Oncology at a university hospital at Gülhane Military Medical Academy in Ankara, Turkey, from December 2012 to July 2013.