

# Dietary Restrictions for Patients With Neutropenia: A Survey of Institutional Practices

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**Purpose/Objectives:** To describe institutional practices related to dietary restrictions for patients with neutropenia to determine whether restrictions are used and when they are implemented and discontinued.

**Design:** Descriptive survey.

**Sample:** 156 institutions belonging to the Association of Community Cancer Centers.

**Methods:** Mailed survey.

**Findings:** Of the institutions surveyed, 78% (n = 120) placed patients with neutropenia on restricted diets. Participating institutions responded that patients were placed on restricted diets at a variety of different white blood cell and neutrophil counts, including neutrophils < 1,000 (43%) and < 500 (46%). The majority of institutions (92%) placed patients on restricted diets once neutropenia was documented, while only 9% of institutions restricted diets when cancer treatment was initiated. Of the participating institutions, 83% (n = 96) restricted diets only when patients were neutropenic rather than throughout the duration of the chemotherapy regimen. The most commonly restricted foods were fresh fruits and juices (92%), fresh vegetables (95%), and raw eggs (74%). Few institutions restricted tap water (12%). Wine was restricted at 39% of institutions, and beer was restricted at 40% of institutions.

**Conclusions:** The role of diet in the development of infection in patients with neutropenia is unclear. This unclear role contributes to the variation in dietary restrictions among institutions.

**Implications for Nursing Practice:** Additional research should focus on dietary factors contributing to neutropenic infections and establishing criteria for implementation of specific dietary modifications. Nursing assessment should include nutritional status and risk factors for neutropenia and bacterial translocation. Nursing protocols for neutropenic dietary restrictions should be based on research findings.

The role of diet in the development of infection in patients with neutropenia is debatable (Rostad, 1991; Somerville, 1986). Dietary restrictions vary in the literature and among institutions. Recommendations range from no dietary restrictions to extensive restrictions. Little data exists regarding the actual usage of low-microbial diets for patients with neutropenia, particularly for patients with cancer who are not undergoing a bone marrow transplant (BMT). Few researchers have investigated the effec-

## Key Points . . .

- ▶ Many institutions restrict diets of patients with neutropenia, but criteria for restrictions vary widely.
- ▶ Many institutions restrict patients' diets when neutropenia is documented rather than when cancer treatment is initiated or throughout the duration of the chemotherapy regimen.
- ▶ Raw fruits and vegetables, poorly cooked foods, and wine and beer are among the offending items most often restricted.
- ▶ Research is needed regarding the need for and efficacy of these nutritional restrictions in reducing infections in patients with neutropenia.

tiveness of restrictions in preventing infection. Compiling information regarding the current practice of restricting diets in the United States is a first step in investigating the efficacy of these interventions. The purpose of this study was to describe institutional practices related to restricted diets for patients with neutropenia, excluding patients undergoing BMT.

## Background

Few studies have been published regarding the actual usage of dietary restrictions for patients with neutropenia. An extensive computer-based literature search produced only two surveys addressing dietary modifications for patients with neutropenia. These surveys addressed infection control practices in BMT units. Poe, Larson, McGuire, and Krumm (1994) surveyed 91 BMT units across the United States. Of these units, 66% (n = 60) prescribed low-microbial diets. These investigators did not report the specific diets or criteria for implementation. In

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