Purpose/Objectives: To determine the time frame for evaluation and treatment of adult patients with febrile neutropenia in the emergency department (ED).

Design: Prospective, descriptive survey.

Setting: ED in a large, urban, academic health center.

Sample: 19 patients with febrile neutropenia during 23 ED visits in eight months.

Methods: Demographic and treatment variables and durations of time were recorded from ED and medical records.

Findings: Patients had fevers a mean of 21 hours (range = 1–72 hours) before seeking treatment. Median waiting time from ED admission to examination was 75 minutes, 210 minutes before antibiotics were given, and 5.5 hours to hospital admission. Patients with more comorbidities and more extensive cancer waited significantly longer than those at lower risk (p < 0.002).

Conclusions: Although the standard of care is to treat febrile neutropenia as an oncologic emergency, patients waited prolonged periods prior to receiving treatment. Studies are indicated to examine early intervention for febrile neutropenia and to determine whether early intervention improves clinical outcomes.

Implications for Nursing: Nurses may repeat this study at other settings and with other populations of people with cancer. Other studies may provide evidence that clinical outcomes are dependent on rapid intervention for febrile neutropenia in the cancer population or evaluate the efficacy of education that oncology nurses deliver to people with cancer and febrile neutropenia.

Patients with cancer with febrile neutropenia constitute a heterogeneous population with a variable risk for development of serious medical complications (Paesmans, 2000). When the neutrophil count decreases to less than 1,000 cells/mm³, increased susceptibility to infection can be expected, with frequency and severity inversely proportional to neutrophil count (Hughes et al., 2002). Patients with hematologic malignancies receiving remission-induction chemotherapy or bone marrow or stem cell transplants are at greatest risk because of frequent prolonged neutropenia (Forrest, Schimpff, & Cross, 2002). About 70%–75% of deaths from acute leukemia and 50% of deaths in patients with solid tumors are related to infection secondary to neutropenia (Barber, 2001). At least half of neutropenic patients who become febrile have an established or occult infection, and at least one-fifth of patients with neutrophil counts of less than 100 cells/mm³ have bacteremia (Hughes et al., 2002). Significant advancements in supportive care for neutropenic patients have been made in the past decade. Despite these achievements, infection continues to be the major cause of morbidity and mortality in this population (Barber). Advancements have resulted in response rates to initial antimicrobial therapies that exceed 70%, and fewer than 10% of patients with cancer with febrile neutropenia die as a result of their infections (Elting & Cantor, 2002).

The American Society of Clinical Oncology developed guidelines for the use of hematopoietic growth factors in 1994 and updated them in 2000 (Ozer et al., 2000). The recommendations include initiating treatment with colony-stimulating factors when the absolute neutrophil count is less than 1,000 cells/mm³ (Hughes et al., 2002). Antimicrobial therapy is generally recommended when febrile neutropenic patients have absolute neutrophil counts less than 500 cells/mm³ (Hughes et al., 2002). The guidelines recommend that treatment should be initiated when fever is present, regardless of neutrophil count. The guidelines recommend that patients with fever and a neutrophil count of less than 500 cells/mm³ should be hospitalized and treated with broad-spectrum antibiotics (Hughes et al., 2002). The guidelines recommend that patients with fever and a neutrophil count of less than 1,000 cells/mm³ should be hospitalized and treated with broad-spectrum antibiotics (Hughes et al., 2002). The guidelines recommend that patients with fever and a neutrophil count of less than 1,000 cells/mm³ should be hospitalized and treated with broad-spectrum antibiotics (Hughes et al., 2002).