Neutropenia: State of the Knowledge Part I

Anita Nirenberg, RN, MS, AOCNP, Annette Parry Bush, RN, BSN, MBA, OCN®, Arlene Davis, RN, MSN, AOCN®, Christopher R. Friese, RN, PhD, AOCN®, Theresa Wicklin Gillespie, PhD, BA, BSN, MA, RN, and Robert David Rice, RN, NP-C, OCN®

Key Points . . .
➤ Chemotherapy-induced neutropenia (CIN) is the most common dose-limiting toxicity of cancer therapy.
➤ Clinical practice guidelines and validated risk assessment models are available for use in evaluating patients for complications related to CIN.
➤ Complications of CIN include infection, the need for hospitalization, and death.

Neutropenia is the most common dose-limiting toxicity of cancer chemotherapy, and complications from chemotherapy-induced neutropenia (CIN) can cause significant morbidity and mortality. In fact, Given and Sherwood (2005) identified CIN as a nursing-sensitive patient outcome symptom. Expert nursing assessment, intervention, education, and evaluation facilitate patient management of CIN.

The project team conducted an extensive review and summary of neutropenia literature, guidelines, and meta-analyses and reviewed current National Institutes of Health— and ONS-funded studies. The panel of experts was invited to participate in a two-day symposium held in January 2006 in Pittsburgh, PA, during which they presented their respective areas of expertise to the project team (see inset). The expert presentations were recorded and transcribed for use in the preparation of this article.

Anita Nirenberg, RN, MS, AOCNP, is an assistant professor of clinical nursing and director of the oncology masters program in the School of Nursing at Columbia University in New York, NY; Annette Parry Bush, RN, BSN, MBA, OCN®, is a nurse planner and project manager in the education team at the Oncology Nursing Society in Pittsburgh, PA; Arlene Davis, RN, MSN, AOCN®, is an oncology clinical nurse specialist at Malcom Randall VA Medical Center in Gainesville, FL; Christopher R. Friese, RN, PhD, AOCN®, is a postdoctoral fellow in the School of Public Health at Harvard University and in the Center for Outcomes and Policy Research at the Dana-Farber Cancer Center, both in Boston, MA; Theresa Wicklin Gillespie, PhD, BA, BSN, MA, RN, is an assistant professor in the Department of Surgery and Winship Cancer Institute at Emory University and the director of health services research and development at the Atlanta VA Medical Center; both in Atlanta, GA; and Robert David Rice, RN, NP-C, OCN®, is a research nurse practitioner at Memorial Sloan-Kettering Cancer Center in New York, NY. (Submitted June 2006. Accepted for publication June 30, 2006.)

Digital Object Identifier: 10.1188/06.ONF.1193-1201