

The AIM Higher Initiative: New Procedures Implemented for Assessment, Information, and Management of Chemotherapy Toxicities in Community Oncology Clinics

**Kelley Moore, RN, Gina Johnson, MSN, APRN-BC,
Barry V. Fortner, PhD, and Arthur C. Houts, PhD**

Chemotherapy-related toxicities are common and often undertreated in routine cancer care. Initiatives to improve toxicity management in practices may not always be effective. Quality improvement programs must engage multiple disciplines of the healthcare team and sustain efforts to institute and maintain procedures that address practice needs. The Assessment, Information, and Management (AIM) Higher Initiative, a quality improvement program undertaken at 15 community oncology practices, was initiated to improve the AIM of chemotherapy-related toxicities in patients with cancer. AIM Higher focuses on improving five chemotherapy-related toxicities: neutropenia, anemia, depression and anxiety, diarrhea and constipation, and nausea and vomiting. Led by a nurse champion at each of the clinics, a variety of new procedures, processes, and tools were implemented to improve quality of care. Nurses and practice administrators can use the quality improvement processes to generate changes in procedures and practices.

Chemotherapy-related toxicities are common and undertreated, and can decrease patients' quality of life (Groopman & Itri, 1999; Hassett, O'Malley, Pakes, Newhouse, & Earle, 2006; Lindley et al., 1999; Lyman & Kuderer, 2002; Patrick et al., 2002).

A review of data on 12,239 women with breast cancer treated with chemotherapy found that serious adverse events requiring emergency care or hospitalization occurred in 16% of patients—higher than the average rate typically reported for a large clinical trial (Hassett et al.). Common causes of hospitalization included infection and fever (8%); neutropenia or thrombocytopenia (5.5%); electrolyte disorders, such as dehydration (2.5%) and nausea or diarrhea (2.4%); fatigue, dizziness, and related conditions (2%); deep venous thrombosis or pulmonary embolism (1.2%); and malnutrition (0.9%).

Quality improvement programs can be used to improve management of chemotherapy-related toxicities before they become serious enough to require hospitalization (Davis, Thomson, Oxman, & Haynes, 1995). Studies show that effective quality improvement strategies, such as sending reminders and increasing outreach visits, have been implemented by physicians (Davis et al.; Tu & Davis, 2002). Few programs, however, (Fortner, Okon, Ashley, et al., 2003; Malin et al., 2006; Rosenbaum et al., 2004; Smith & Hillner, 2001) have tapped into nurses' potential to become involved in and focused on implementing quality improvement programs in community oncology practices, where more

than 80% of patients with cancer are treated (Herzlinger, 2002). Successful quality improvement programs included interventions with multiple educational strategies that require engaging activities across different levels of professional practice and extend over time with iterative feedback (Davis & Taylor-Vaisey, 1997). Program evaluations included measures of the implemented processes, patient health, and professional practice outcomes.

At the time that this article was written, Kelley Moore, RN, was the vice president of clinical projects at Supportive Oncology Services, Inc., in Memphis, TN; Gina Johnson, MSN, APRN-BC, is a nurse practitioner and manager of clinical projects at Supportive Oncology Services, Inc.; Barry V. Fortner, PhD, was founder and chief operating officer at Supportive Oncology Services, Inc., and director of Psychology and Cancer Symptom Research at the West Clinic, PC, in Memphis; and Arthur C. Houts, PhD, is vice president of scientific analysis and development at Supportive Oncology Services, Inc., and a clinical psychologist at the West Clinic, PC. Editorial assistance was provided by Apothecom Associates, LLC. Moore has served as a speaker and Fortner has served as a speaker and consultant for Amgen Inc. Funding for this study was provided by Supportive Oncology Services, Inc., and by a grant from Amgen Inc. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the *Clinical Journal of Oncology Nursing* or the Oncology Nursing Society. (Submitted September 2006. Accepted for publication July 31, 2007.)

Digital Object Identifier: 10.1188/08.CJON.229-238