

# Implementation of the American Society of Clinical Oncology and Oncology Nursing Society Chemotherapy Safety Standards: A Multidisciplinary Approach

Anna N. Vioral, MSN, MEd, RN, OCN®, and Heather K. Kennihan, BSN, RN, OCN®



© Oncology Nursing Society

Chemotherapy involves an intricate, high-risk, multidisciplinary process of prescribing, dispensing, and administering complex multimедication regimens with narrow therapeutic indices. Chemotherapeutic agents also require safe-handling precautions for patients and healthcare providers. In addition, a number of chemotherapy and targeted therapies have expanded to nononcology populations. This complexity demands standardization of chemotherapy practice for all healthcare providers to ensure safe outcomes. This article describes one organization's multidisciplinary effort to standardize chemotherapy practice according to the American Society of Clinical Oncology and Oncology Nursing Society's 31 safety standards for chemotherapy administration. The article also describes how the organization integrated and developed standards of practice using interdisciplinary approaches. The educational processes used during implementation and the lessons learned are discussed to assist healthcare providers involved in standardizing chemotherapy administration. The article equips healthcare professionals with a multidisciplinary process for high-quality clinical standards of practice that may reduce errors and ensure safety.

Anna N. Vioral, MSN, MEd, RN, OCN®, is an oncology quality and education specialist at West Penn Allegheny Health System and Heather K. Kennihan, BSN, RN, OCN®, is a clinical coordinator of oncology service at Allegheny General Hospital, part of the West Penn Allegheny Health System, both in Pittsburgh, PA. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Vioral can be reached at [rvav@consolidated.net](mailto:rvav@consolidated.net), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org). (First submission April 2012. Revision submitted July 2012. Accepted for publication July 3, 2012.)

Digital Object Identifier:10.1188/12.CJON.E226-E230

Chemotherapy tops the list of high-alert medications, outranking IV potassium chloride and insulin as a potential threat to patient safety (Institute for Safe Medication Practices [ISMP], 2003). Chemotherapeutic agents have a lower therapeutic index and narrower safety margins than other drug classifications (Sheridan-Leos, 2007). Even small errors may cause major harm because chemotherapy dosing is patient-specific based on body size or renal function. The potential for errors also exists because of the complex multidrug regimens, the variety of administration routes, and the spectrum of dosages based on the administration routes (Sheridan-Leos, 2007). The many variations in prescribing, mixing, dispensing, and administration related to these agents may lead to an increased potential for errors or lethal negative outcomes. Additional safety con-

cerns associated with chemotherapy include the safe-handling precautions required by patients and healthcare providers. In addition, a number of chemotherapy and targeted therapies have expanded to nononcology population indications, such as patients with rheumatoid arthritis, lupus, nephritis, multiple sclerosis, or ectopic pregnancies (Polovich & Giesecker, 2011). The complexity involved with chemotherapy administration demands standardization of chemotherapy practice for all healthcare providers to ensure safe outcomes.

Despite these risks, few national standards existed for safe administration of these agents. In 2008, the American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS) initiated a collaborative project to develop standards for safe chemotherapy administration to adult patients with cancer. The scope of the project included patient safety with