Issues Related to Overadherence to Oral Chemotherapy or Targeted Agents

Sandra L. Spoelstra, PhD, RN, Barbara A. Given, PhD, RN, FAAN, Charles W. Given, PhD, Marcia Grant, RN, PhD, Alla Sikorskii, PhD, Mei You, MS, and Veronica Decker, MS, RN

Use of oral chemotherapy or targeted agents is shifting how cancer treatment is administered, moving it from supervised office visits to self-administration at home. This study examines issues related to overadherence to oral agents that were noted during a trial conducted by the authors comparing an automated voice system to strategies to reduce symptom severity and improve adherence. Overadherence to oral agents may be a significant clinical problem, occurring more often in patients with complex dosing regimens, and may lead to increased symptom severity from side effects of treatment. Avoiding overadherence may be important for the reduction or prevention of symptoms and potentially life-threatening toxicity. Nurses need to discuss with their patients the importance of the timing of the administration of their oral oncolytic regimen, as well as to provide prompts to assist in self-administration as prescribed so that overadherence can be avoided.

Sandra L. Spoelstra, PhD, RN, is an assistant professor and Barbara A. Given, PhD, RN, FAAN, is a University Distinguished Professor, both in the College of Nursing, and Charles W. Given, PhD, is a professor in the Department of Family Practice in the College of Human Medicine, all at Michigan State University in East Lansing; Marcia Grant, RN, PhD, is a professor in the Department of Nursing Research and Education at the City of Hope Medical Center in Duarte, CA; Alla Sikorskii, PhD, is an associate professor in the Department of Statistics and Probability and Mei You, MS, is a research assistant III in the College of Nursing, both at Michigan State University; and Veronica Decker, MS, RN, is an administrative director at Florida Hospital Cancer Institute in Orlando. 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. Spoelstra can be reached at spoelst5@msu.edu, with copy to editor at CJOINeditor@ons.org. (Submitted February 2013. Revision submitted April 2013. Accepted for publication April 7, 2013.)

Digital Object Identifier: 10.1188/13.CJON.17-06AP

Use of oral chemotherapy or targeted agents is transforming delivery of cancer treatment, with patients self-administering pills at home (Blasdel & Bubalo, 2006). Consequently, having the patient adhere to the oral oncolytic regimen as prescribed is critical so that the efficacy of the cancer treatment is not compromised (Escalada & Griffiths, 2006). Despite clinicians’ best efforts, medication adherence is a common problem, and may be particularly troublesome for patients with cancer who are prescribed an oral oncolytic (Findlay, von Minckwitz, & Wardley, 2008). A review of oncolytic studies on underadherence, or taking less than the prescribed amount of the oncolytic, found that adherence rates ranged from 20%–80% (Spoelstra & Given, 2011). Three of the reviewed studies also reported on the occurrence of overadherence, or taking more than the prescribed amount of the oncolytic (Borner et al., 2002; Leventhal, Nerenz, Leventhal, Love, & Bendena, 1991; Mayer et al., 2009). None of those articles provided statistical analysis, and only one reported on the reasons for overadherence, which included taking the medication beyond the end of the prescribed drug cycle or taking extra doses on a single day (Mayer et al., 2009).

During the course of conducting a trial on strategies to manage symptoms and adherence among those taking oral chemotherapy or targeted agents, the authors of the current article also found the problem of overadherence. Therefore, the purpose of this secondary data analysis was to examine overadherence by comparing three adherence groups: (a) those with adherence who were taking the prescribed dosage of oral agents, (b) those with overadherence who were taking more than the prescribed dosage, and (c) those with underadherence who were taking less than the prescribed dosage. The authors examined characteristics, complexity (daily regimen versus cycles of days on and off), cancer site, baseline mean symptom severity, and depressive symptoms using the three adherence groups. The authors also compared week by week (during weeks 2-10 in the study) mean symptom severity according to the three adherence groups. The authors examined overadherence in this manner to determine