Trajectory of Medication-Induced Constipation in Patients With Cancer

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Purpose/Objectives: To determine the severity and trajectory of constipation among patients with cancer from opioids and/or vinca alkaloids.

Design: Exploratory, descriptive.

Setting: Moffitt Cancer Center, a National Cancer Institute–designated comprehensive cancer center in Tampa, FL.

Sample: 400 patients at risk for developing medication-induced constipation from opioids, vinca alkaloids, or both.

Methods: Patients' baseline data included the Constipation Assessment Scale (CAS), the constipation item from the Memorial Symptom Assessment Scale (MSAS) for intensity and distress, and the laxative interview. Following the interview, the medical chart was reviewed for clinical and demographic data. Patients were asked about constipation (CAS) and laxatives consumed (laxative interview) during eight weekly telephone calls.

Main Research Variables: Constipation presence, intensity, and distress.

Findings: At baseline, 63% of patients reported some level of constipation. During the eight weeks, constipation fluctuated with scores ranging from 0–16, with the opioid-only group showing a small but statistically significant decrease in intensity. Constipation intensity and distress on the MSAS were significantly correlated ($r = 0.76$; $p = 0.000$).

Conclusions: The majority of the sample reported constipation that ranged from mild to severe, persisted over time, and caused symptom distress. Therefore, healthcare providers in the cancer center likely were neither adequately managing the medication-induced constipation nor apparently teaching patients to manage it themselves.

Implications for Nursing: National Comprehensive Cancer Network guidelines support the importance of managing medication-induced constipation. However, guidelines are not being followed in many cases; therefore, more focus is needed on constipation in clinical and educational settings as well as more research.

Knowledge Translation: Patients receiving opioids and vinca alkaloids are at risk of constipation. Currently, medication-induced constipation is poorly managed. Managing constipation may lessen symptom distress, thereby improving quality of life in these patients.

Constipation is a common problem among patients with cancer and is believed to be among the most nurse-sensitive patient outcomes (Hoekstra, de Vos, van Duijn, Schadé, & Bindels, 2006; McMillan & Rivera, 2009). Although very amenable to nursing intervention, constipation often goes unrecognized and untreated in oncology settings (McMillan, Tittle, Hagan, & Laughlin, 2000; Miaskowski, 1995; Woolery et al., 2006, 2008). A significant problem facing oncology nurses in treating medication-induced constipation is the lack of research on which to base treatment decisions. Research in patients with cancer indicates self-reported prevalence to be 43%–58%, with mean intensity ranging from 5.2–6 on a scale from 0 (none) to 10 (worst), demonstrating the significance of the problem (Hoekstra et al., 2006; McMillan & Rivera, 2009). However, those studies did not focus on opioids or other medications as a cause of constipation; therefore, very little research has been conducted that can provide clear data on the prevalence and trajectory of medication-induced constipation (Thomas et al., 2008). The purpose of this study was to determine the severity and trajectory of constipation among patients with cancer at risk for constipation from opioids and/or vinca alkaloids and to evaluate the levels and relationships between constipation intensity and distress.

Background

A systematic review of the literature related to opioid-induced constipation was undertaken by a team of clinical and research experts assembled by the Oncology Nursing Society. The goal was to develop evidence-based guidelines (Woolery et al., 2008). The results showed few intervention studies including patients with cancer with opioid-induced or other types of constipation. In addition, the expert group concluded that, in spite of the frequent occurrence of