A Nurse-Led Evidence-Based Practice Project to Monitor and Improve the Management of Chemotherapy-Induced Nausea and Vomiting

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Chemotherapy-induced nausea and vomiting (CINV) is a common and severe symptom experienced by patients undergoing cancer treatment during the acute or delayed period. Individual characteristics can compound risk for CINV. Identification of risk factors for CINV and structured, nurse-led telephone follow-up are effective, evidence-based methods to support patients undergoing cancer treatment. The authors successfully implemented a structured, nurse-led CINV intervention to improve assessment, follow-up, and support for 30 patients undergoing chemotherapy within an adult ambulatory oncology clinic.

At a Glance

- CINV is a common and severe symptom for patients undergoing chemotherapy.
- A nurse-led assessment and telephone follow-up intervention was able to successfully monitor patient-reported CINV during the acute and delayed periods.
- A structured, nurse-led telephone intervention is a feasible way to allow patients to report symptoms outside of a clinical visit.

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Chemotherapy-induced nausea and vomiting (CINV) are common and severe symptoms experienced by more than 50% of patients undergoing cancer treatment (Grunberg, 2012). CINV can occur in the acute period, defined as the initial 24 hours after treatment, or the delayed period, defined as 48–72 hours after treatment. Patients treated for cancer in ambulatory cancer settings will experience delayed CINV outside of the clinical setting where self-care and medication self-administration are required to manage CINV.

Chemotherapy regimens are categorized based on level of emetogenicity (Roila et al., 2010), and typical antiemetic treatments are tailored based on mild-, moderate-, or high-level categories. In addition to the emetogenicity of the drug, certain personal characteristics place a patient at increased risk for CINV. These factors include female gender, aged 60 years or younger, minimal alcohol use, and past experiences with motion sickness, CINV, or chemotherapy (Pirri et al., 2011; Thompson, 2012). In addition, anticipatory CINV, or having an expectation that CINV will occur, is known to predispose a patient to CINV (Molassiotis et al., 2014; Roscoe, Morrow, Aapro, Molassiotis, & Olver, 2011).

Treatments for CINV have improved with new medication regimens, but the symptom often may be underreported or undertreated when the patient is outside of the clinic during the acute or delayed symptom experience. Therefore, providing a mechanism for patients to receive support outside of the clinic appointment is important. Structured, nurse-led telephone follow-up and support, in addition to interdisciplinary management of symptoms, can improve patient-reported symptom outcomes (Anderson, 2010; Aranda et al., 2012; Craven, Hughes, Burton, Saunders, & Molassiotis, 2013; Cusack & Taylor, 2010; Kimman et al., 2011).

Study Objectives

The primary study objective was to evaluate the process of implementing a structured, nurse-led assessment and telephone follow-up intervention. The authors describe participant enrollment, attrition and completion rates in the study, frequency of completion of nurse-led telephone follow-up, and time to complete the follow-up. A secondary objective was to evaluate the occurrence of acute and delayed CINV in the sample, describe the frequency of anticipatory CINV, and describe frequency of changes in antiemetic prescription after the nurse-led intervention.

Methods

The current study included a descriptive, evidence-based practice project conducted at a community ambulatory