

# Antiemetic Guidelines

## Using education to improve adherence and reduce incidence of CINV in patients receiving highly emetogenic chemotherapy

Corrine Mellin, DNP, RN, OCN®, AGNP-C, Mallory Lexa, RN, MSN, BSN, OCN®, Ashley Leak Bryant, PhD, RN-BC, OCN®, Susie Mason, MSN, RN, OCN®, and Deborah K. Mayer, PhD, RN, AOCN®, FAAN



**BACKGROUND:** With the development of increasingly effective antiemetic regimens, guideline adherence can prevent 70%–80% of chemotherapy-induced nausea and vomiting (CINV) in patients with cancer.

**OBJECTIVES:** This quality improvement project aims to increase rates of adherence to national guidelines and, ultimately, decrease rates of CINV experienced by patients receiving highly emetogenic chemotherapy.

**METHODS:** A retrospective chart analysis was performed. In-person education was provided to staff nurses and advanced practice providers on guidelines, followed by a survey immediately postintervention and again at three months.

**FINDINGS:** Prior to the intervention, 49% of patients were found to experience CINV, with only 7% receiving guideline-appropriate prophylaxis. At three months, 37% of patients experienced CINV, with 22% receiving appropriate prophylaxis.

### KEYWORDS

guideline; chemotherapy; provider adherence; CINV; antiemetic

### DIGITAL OBJECT IDENTIFIER

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**CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING (CINV)** has been ranked as one of the most feared side effects associated with chemotherapy and is a persistent problem for about 40%–80% of patients receiving treatment (Viale, Grande, & Moore, 2012; Vidall, Sharma, & Amlani, 2016). CINV can be prevented in about 70%–80% of those cases with appropriate antiemetic prophylaxis and management (Fernandez-Ortega et al., 2012). However, despite updates to existing guidelines, evidence suggests that the use of guidelines is less than optimal (Fernandez-Ortega et al., 2012). One study found that healthcare providers lack knowledge on how to effectively implement guidelines into practice (Van Laar, Desai, & Jatoi, 2015). Few studies have evaluated approaches to improve provider adherence to guidelines, and those that have reported limited success (Jordan, Jahn, & Aapro, 2015). One article supported the importance of healthcare providers undergoing periodic education on supportive care measures, along with continued education on guideline adherence (Burmeister, Aebi, Studer, Fey, & Gautschi, 2012).

The lack of guideline adherence for CINV prevention and management by healthcare providers has been cited as a major issue (Hilarius et al., 2012). The reason for low compliance is multifactorial and found in all areas of healthcare, not just with antiemetic guidelines (Jordan, Gralla, Jahn, & Molassiotis, 2014). Guidelines are very useful tools for providers to appropriately employ and integrate the newest clinical research into practice (Daniel & Waddell, 2016). However, studies show that providers overestimate the control of CINV in patients receiving highly emetogenic chemotherapy (HEC), demonstrating the need to increase awareness of the incidence of CINV (Jordan et al., 2015). Less-than-optimal adherence to guidelines results in deficient control of CINV, which can lead to excessive use of healthcare resources, interfere with patients' adherence to treatment, and can result in poor patient outcomes (Fernandez-Ortega et al., 2012).

The American Society of Clinical Oncology (ASCO) and the National Comprehensive Cancer Network (NCCN) have added the AC combination (a chemotherapy regimen containing any dose of an anthracycline plus cyclophosphamide) to the list of HECs. The inclusion of the AC combination at any dose is a new practice change because many chemotherapy regimens