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# Efficacy and Cost: Avoiding Undertreatment of Chemotherapy-Induced Nausea and Vomiting

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Although nausea and vomiting occur in patients with cancer for various reasons, chemotherapy-induced nausea and vomiting (CINV) remains one of the most distressing symptoms associated with cancer therapy. Despite advances in the management of that side effect, patients with cancer receiving chemotherapy continue to report CINV. Oncology nurses should be aware of advances in the management of CINV. Healthcare provider perceptions of CINV may not accurately represent actual occurrence of the symptom, and CINV may affect patients' quality of life or even treatment adherence for selected patients. Although evidence-based guidelines are available, not all healthcare providers, including oncology nurses, follow recommendations for prevention of CINV. Inadequately treated CINV can lead to increased resource costs, as well as patient suffering. This article will review the evidence for the cost of inadequately treated CINV, as well as current clinical guidelines for management of this symptom. Oncology nurses are critical in the assessment and management of CINV, as well as in making recommendations for practice improvement.

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Digital Object Identifier:10.1188/12.CJON.E133-E141

Chemotherapy-induced nausea and vomiting (CINV) consistently is rated as one of the most feared possible side effects associated with cancer therapy (Hesketh, 2009). The prevalence persists despite considerable advances in the treatment of CINV since the 1990s. The prevention of CINV is possible with appropriate use of evidence-based antiemetic treatment; published guidelines are available to assist healthcare providers (HCPs) with the management of this adverse event (Hesketh, 2009). CINV can negatively affect patients' quality of life and may lead to decreased treatment adherence for selected patients (Cohen, de Moor, Eisenberg, Ming, & Hu, 2007; Jordan, Sippel, & Schmoll, 2007). The primary goal of antiemetic therapy remains to completely control or minimize the symptom of CINV (Jordan et al., 2007). Without appropriate antiemetic therapy, 70%–80% of patients with cancer will experience CINV (Feyer & Jordan, 2011).

Oncology nurses caring for patients receiving chemotherapy for cancer should be aware of the potential for CINV and ef-

fective management strategies to combat that symptom. CINV has two primary phases. The first phase is termed acute and generally is considered to occur within 24 hours of chemotherapy administration (Feyer & Jordan, 2011). The second phase is delayed onset and occurs 24 hours to several days after initial treatment of CINV. Another type of CINV is anticipatory, which is believed to occur because of inadequately treated CINV in the past or secondary to a patient's poor initial response to antiemetic therapy and can be triggered by multiple factors such as taste, odor, or memories of previous CINV events (Feyer & Jordan, 2011). Breakthrough nausea and vomiting occur despite preventive therapy, and refractory generally means that CINV is present in subsequent cycles after failure of primary antiemetic therapy (Hawkins & Grunberg, 2009).

Despite significant improvements and new drug classifications (such as the serotonin antagonists) in the management of acute CINV, studies have demonstrated that delayed nausea and vomiting remained, probably because the acute period was better controlled (Grunberg et al., 2011). The approval