

# Use of Neurokinin-1 Receptor Antagonists in Patients Receiving Moderately or Highly Emetogenic Chemotherapy

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Chemotherapy-induced nausea and vomiting (CINV) is a serious adverse effect of chemotherapy that limits patients' physical, mental, and functional capabilities and may cause a delay or cessation of treatment. Antiemetic therapy can reduce the incidence of CINV. Research, using data from visits by patients receiving moderately (MEC) or highly emetogenic chemotherapy (HEC), identified that antiemetics were prescribed for 86% (in 2007) and 82% (in 2008) of patients receiving MEC or HEC. For these visits, 5-hydroxytryptamine-3 receptor antagonists were prescribed in at least 97% of visits for both years, whereas neurokinin-1 (NK-1) receptor antagonists were prescribed at a rate of 10% and 11%, respectively. Studies show that nurses and physicians underestimate the incidence of CINV after HEC and MEC. Oncology nurses often critically influence patients' selection of CINV therapy and can play a significant role in increasing awareness about the benefits of adding an NK-1 receptor antagonist to standard prophylactic regimens for acute and delayed CINV.

**M**ore than 70% of all patients with cancer who are receiving chemotherapy will experience nausea, vomiting, or both in the absence of any antiemetic (National Comprehensive Cancer Network [NCCN], 2009). In addition, 10%–44% will experience anticipatory nausea and vomiting (NCCN, 2009). Chemotherapy-induced nausea and vomiting (CINV) can have a significant negative impact on the quality of a patient's life (Ballatori et al., 2007; Bloechl-Daum, Deuson, Mavros, Hansen, & Herrstedt, 2006; Cohen, de Moor, Eisenberg, Ming, & Hu, 2007; NCCN, 2009), perhaps leading to poor adherence to cancer treatment as well as physical, mental, and functional complications.

Despite advances in the management of CINV since the late 1980s, most patients continue to fear nausea and vomiting following chemotherapy (Bloechl-Daum et al., 2006; Carelle et al., 2002; Hoffman et al., 2004). Improvements in the management of acute CINV (in the first 24 hours after infusion) have resulted in lower incidences of nausea and vomiting at the site of care. However, when patients experience delayed CINV, they are generally not under the direct supervision of a healthcare provider. Because physicians and nurses do not witness patients' delayed CINV episodes firsthand, they often underestimate the scope of the issue (Grunberg & Ireland, 2005).

According to a survey conducted on site at the 33rd annual Oncology Nursing Society Congress in Philadelphia, PA, in May 2008, nurses reported that, aside from fatigue, CINV is the most

## At a Glance

- ◆ Nurses are critical to the prevention and management of chemotherapy-induced nausea and vomiting (CINV).
- ◆ Less than 12% of patients with cancer who would benefit the most from a neurokinin-1 receptor antagonist and 5-hydroxytryptamine-3 receptor antagonist combination antiemetic therapy actually receive it.
- ◆ Because quality of life and adherence to future chemotherapy regimens are significantly affected by CINV, all clinicians should recognize the value of effective antiemetic therapy as a factor in chemotherapy tolerability.

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