

New Solutions to Old Problems: Chemotherapy Induced Nausea and Vomiting

During a presentation sponsored by MGI Pharma, Elaine S. DeMeyer RN, MSN, AOCN, President and CEO of Creative Cancer Concepts, Inc. discussed new treatment options for chemotherapy induced nausea and vomiting (CINV). Elaine began with recent statistics related to CINV. Approximately 30% of patients receiving moderate to highly emetogenic chemotherapy do not have complete control of acute emesis. Physicians and nurses estimate control of emesis consistently higher than patient perceptions (76-87% vs. 43-72%). With patients receiving adjuvant chemotherapy for breast cancer, those who perceived the chances of having severe nausea as "very likely" were more likely (64%) to develop severe nausea. Delayed nausea occurs in 80% of patients receiving adjuvant breast cancer chemotherapy with the highest incidence of CINV occurring on the third day after chemotherapy.

Elaine discussed two new agents, aprepitant (Emend™ Merck) and palonosetron (Aloxi™ MGI Pharma) for the management of CINV. Emend™ is the first in the class of NK1 receptor antagonists, approved in March 2003. It is an oral agent administered for 3 days as part of a regimen that includes a corticosteroid and a 5-HT₃ antagonist. Most new drugs are approved as monotherapy, so it is important to note that Emend™ was approved for use in **combination** with other antiemetic agents. The recommended dose is 125 mg orally 1 hour prior to chemotherapy (Day 1) and 80 mg once daily in the morning on Days 2 and 3. Emend is indicated for the prevention of acute and delayed CINV of highly emetogenic chemotherapy such as cisplatin.

Aloxi™ is a new long acting 5-HT₃ antagonist approved in July 2003. The half-life of Aloxi is approximately 40 hours, which is 5-10 times the half-life of the other currently marketed 5-HT₃ antagonists. The longer half-life allows for less frequent dosing with more emetogenic control. Another differentiating factor is a higher binding affinity, which is at least 30 times greater than other agents in this class. This increased receptor blockade translates into clinically superior patient outcomes. Aloxi™ is given as a 0.25mg single dose infused over 30 seconds approximately 30 minutes before the start of chemotherapy. In the Phase III trials, the average increase in complete response rates for those patients being treated with Aloxi™ was approximately 20% better than the comparative 5-HT₃'s – similar results as in the Emend™ trials. Aloxi™ is indicated for acute CINV of **moderately** and **highly** emetogenic chemotherapy and for delayed CINV of **moderately** emetogenic chemotherapy.

With the widespread use of colony stimulating factors, the dose limiting toxicity of chemotherapy has become mucositis, diarrhea, and nausea and vomiting. Effective prevention of these symptoms can allow for more dose intense chemotherapy. Future research will examine the combination of Aloxi™ and Emend™ with single dose Emend™ and three days of Emend™. Research will also explore the optimal antiemetic dosing of these newer agents with multiple day chemotherapy and dose dense regimens. Clinical trials are underway in special populations such as pediatrics and hematopoietic stem cell transplantation (HCT). These two new agents have stimulated further research aimed at prevention of CINV.



Elaine S. DeMeyer

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"This meeting was well presented and concise. It was well worth my time."

Nancy Kunstman

Mt. Diablo Regional Cancer Center, Concord, CA

