



# Chemotherapy-Induced Nausea and Vomiting

Cynthia N. Rittenberg, RN, MN, AOCN®, and Regina S. Cunningham, PhD, RN, AOCN®

- Julie, a 39-year-old mother with a family history of breast cancer, underwent a lumpectomy and axillary node dissection. Postoperative vomiting required a delay in discharge. She is receiving adjuvant therapy and returns for her second of four cycles of cyclophosphamide and doxorubicin. After her first cycle, Julie had a moderate amount of nausea and vomiting lasting two to three days following chemotherapy. She was unable to eat and required outpatient IV fluids for dehydration. The order for Julie's acute emesis prevention was 25 mg of IV diphenhydramine and 20 mg IV dexamethasone prior to chemotherapy, with prochlorperazine as needed at home. She is noticeably anxious about receiving her second cycle of chemotherapy. Which of the following changes in an antiemetic regimen should the nurse anticipate to improve Julie's emetic control during her second cycle?
  - Omit dexamethasone.
  - Add an H<sub>2</sub> antagonist.
  - Decrease the dose of chemotherapy.
  - Administer a 5-hydroxytryptamine-3 (5-HT<sub>3</sub>) receptor antagonist.
- When doing an intake assessment on Julie, you realize that in addition to anxiety and prior chemotherapy administration with poor emetic control, the following characteristic will influence Julie's risk of experiencing chemotherapy-induced nausea and vomiting (CINV).
  - Younger age
  - Recent surgical history
  - History of high alcohol intake
  - High daily caloric food intake prior to chemotherapy administration
- A nurse developing a care plan for a patient experiencing delayed nausea and vomiting would need to be aware that
  - Delayed CINV occurs up to 12 hours before chemotherapy administration.
  - Delayed CINV occurs one to two hours after treatment and is resolved within 24 hours.
  - Delayed CINV most frequently is seen in children who have received numerous cycles of chemotherapy.
  - Delayed CINV may begin as early as 16 hours following chemotherapy administration or may develop 24 hours after chemotherapy and last for several days following therapy.
- Which of the following statements is true about the neurokinin-1 (NK<sub>1</sub>) receptor antagonist aprepitant (Emend®, Merck & Co., Inc., Whitehouse Station, NJ)?
  - It is effective for delayed emesis only.
  - It is approved as a single agent for CINV protection.
  - It has been found to be highly effective in treating anticipatory nausea.
  - It is indicated for acute and delayed nausea and vomiting associated with initial and repeat courses of highly emetogenic chemotherapy in combination with other antiemetics following CINV.
- A pharmacy student is rotating through the outpatient oncology unit and inquires as to which of the following agents has the highest emetogenic potential. What is your answer?
  - Bleomycin
  - Dacarbazine
  - Procarbazine
  - L-asparaginase
- Molly, a student nurse, is working with you and is assuming the care of Mr. Jones, who is receiving curative chemotherapy for limited-stage small cell lung cancer. In addition to ensuring comprehensive documentation of Mr. Jones's response to his prescribed antiemetics and instructing him and his family about self-care strategies regarding nausea and vomiting, which of the following is a key aspect of the nurse's role that you should stress to Molly about Mr. Jones's CINV?
  - Instruct the patient and family about chemotherapy agents that have a lower level of emetic potential.
  - Encourage the patient to experiment with his as-needed antiemetics until he finds what works best for him.
  - Perform a systematic assessment of risk factors for CINV prior to chemotherapy administration.
  - Inquire as to Mr. Jones's insurance coverage to determine eligibility for appropriate antiemetic therapy.
- Laura S. is receptive to learning about behavioral methods to relieve CINV. The nurse should expect which of the following to be offered to Laura as part of this behavioral approach?
  - Audio and visual stimulation
  - Progressive muscle relaxation
  - Use of a topical anticholinergic patch
  - Additional IV antiemetic agents

Cynthia N. Rittenberg, RN, MN, AOCN®, is president of Rittenberg Oncology Consulting in Metairie, LA, and executive director of the Multinational Association of Supportive Care in Cancer. She is on advisory boards and speakers bureaus for MGI Pharma, Inc. (which manufactures Aloxi™), and Merck & Co., Inc. (which manufactures Emend®), and is a speaker for GlaxoSmithKline. Regina S. Cunningham, PhD, RN, AOCN®, is chief nursing officer at the Cancer Institute of New Jersey in New Brunswick and assistant professor of Family Medicine—Research Division at the University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School in New Brunswick. She is on speakers bureaus for Merck & Co., Inc., and MGI Pharma, Inc. (Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Clinical Journal of Oncology Nursing or the Oncology Nursing Society.)

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