

chapter 63

Antiemetics

Objectives

AFTER STUDYING THIS CHAPTER, THE STUDENT WILL BE ABLE TO:

1. Identify clients at risk of developing nausea and vomiting.
2. Discuss guidelines for preventing, minimizing, or treating nausea and vomiting.
3. Differentiate the major types of antiemetic drugs.
4. Discuss characteristics, effects, and nursing process implications of selected antiemetic drugs.

Critical Thinking Scenario

Kelly Morgan, a 44-year-old woman, is having elective abdominal surgery. In the past, she has experienced significant postoperative nausea. Her physician orders lorazepam (Ativan), prochlorperazine (Compazine), and metoclopramide (Reglan) on a PRN basis to treat postoperative nausea and vomiting.

Reflect on:

- ▶ Factors that contribute to nausea and vomiting for the postoperative client.
- ▶ How each ordered antiemetic works to decrease nausea and vomiting.
- ▶ Why more than one antiemetic is ordered.
- ▶ How you will make decisions regarding which antiemetic medications to give Ms. Morgan.

OVERVIEW

Antiemetic drugs are used to prevent or treat nausea and vomiting. *Nausea* is an unpleasant sensation of abdominal discomfort accompanied by a desire to vomit. *Vomiting* is the expulsion of stomach contents through the mouth. Nausea may occur without vomiting, and vomiting may occur without prior nausea, but the two symptoms often occur together.

Nausea and vomiting are common symptoms experienced by virtually everyone. These symptoms may accompany almost any illness or stress situation. Causes of nausea and vomiting include the following:

1. Gastrointestinal (GI) disorders, including infection or inflammation in the GI tract, liver, gallbladder, or pancreas; impaired GI motility and muscle tone (eg, gastroparesis); and overeating or ingestion of foods or fluids that irritate the GI mucosa
2. Cardiovascular, infectious, neurologic, or metabolic disorders
3. Drug therapy. Nausea and vomiting are the most common adverse effects of drug therapy. Although the

symptoms may occur with most drugs, they are especially associated with alcohol, aspirin, digoxin, anti-cancer drugs, antimicrobials, estrogen preparations, and opioid analgesics.

4. Pain and other noxious stimuli, such as unpleasant sights and odors
5. Emotional disturbances, physical or mental stress
6. Radiation therapy
7. Motion sickness
8. Postoperative status, which may include pain, impaired GI motility, and receiving various medications

Vomiting occurs when the vomiting center (a nucleus of cells in the medulla oblongata) is stimulated. Stimuli are relayed to the vomiting center from peripheral (eg, gastric mucosa, peritoneum, intestines, joints) and central (eg, cerebral cortex, vestibular apparatus of the ear, and neurons in the fourth ventricle, called the *chemoreceptor trigger zone* [CTZ]) sites. The vomiting center, CTZ, and GI tract contain benzodiazepine, cholinergic, dopamine, histamine, opiate, and serotonin receptors, which are stimulated by emetogenic drugs and toxins circulating in blood and cerebrospinal fluid. For example, in cancer chemotherapy, emetogenic drugs stimu-