



Specialty Medicine Compounding Pharmacy

Competent Compounding

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November 2006 Eugene Kreys PharmD (cand)

The Role of Anti-Emetics

Nausea is the sensation of being about to vomit. It is a subjective feeling and patients use such terms as “sick to the stomach” or “queasy.” On the other hand, vomiting (emesis) is a definite physical event that results in a rapid and forceful expulsion of gastric contents from the stomach and out through the mouth¹. Nausea and vomiting are caused by conditions within and outside the gut as well as by drugs and circulating toxins².

As a general rule, the following three steps should be considered when treating nausea and vomiting:

-Recognition and correction of fluid, electrolyte, or nutritional deficiencies and any other consequences or complications that that may have resulted from vomiting¹.

-If possible, identification and elimination of the underlying cause of vomiting. However, it is important to recognize there is a broad range of pathologic and physiologic conditions that could produce nausea and vomiting¹. The diagnosis of nausea and vomiting should begin with a physical examination and a thorough history of symptom duration, frequency and severity as well as the characteristics of vomiting episodes and associated symptoms³.

-Suppression or elimination of the symptoms themselves if the primary cause cannot be easily identified and ameliorated. Acute or chronic nausea and vomiting can often be helped by antiemetic drugs depending upon the underlying cause³.

Antiemetics act mainly within the central nervous system to suppress nausea and prevent vomiting. The primary classes of drugs that have been used for symptomatic treatment of nausea and vomiting are phenothiazines, antihistamines, anticholinergics, benzamides, and serotonin antagonists. Other classes of compounds that have been shown to have antiemetic properties are buty-

rophenones, cannabinoids, steroids, and benzodiazepines¹.

Symptomatic therapy should be based on severity and the source of the symptoms. Therefore, mild nausea and uncomplicated vomiting may be treated with oral antiemetics, whereas severe intractable persistent episodes require IV therapy. The choice for antiemetic therapy is also highly dependent on the source of the symptoms.

For example, motion sickness and related disorders are treated primarily with antihistamines like Benadryl (diphenhydramine), whereas the prevention and treatment of both acute cancer chemotherapy-related nausea and vomiting have come to be based largely on the use of agents that block serotonin receptors such as Zofran (ondasetron)¹. Many antiemetics can often be used in combination. PDM is a combination of three antiemetics: promethazine, dexamethasone, metoclopramide. This gel-like topical medication, created by Kenny Walkup at the Specialty Medicine Compounding Pharmacy, has been shown to effectively alleviate nausea and vomiting from hospice patients to patients receiving chemotherapy.

It should be noted that relatively few quality trials have compared various antiemetic medications. Further research must be done to determine the most optimal treatment for nausea and vomiting.

Resources available by emailing the pharmacy at kenny@specialty-medicne.com.



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Drug Class		Drug	Use
Anticholinergics		Transderm-Scop, Scopace (scopolamine)	Prophylaxis against vestibular nausea (motion sickness) and nausea associated with anesthesia
Antihistamines		Antivert, Bonine (OTC) (meclizine)	Prophylaxis against vestibular nausea (motion sickness)
		Benadryl (diphenhydramine)	
		Merazine (cyclizine)	
		Vistaril (hydroxyzine)	
Dopamine receptor antagonists	Phenothiazines	Compazine (prochlorperazine)	Moderately effective for nausea caused by various gastrointestinal disorders and mild to moderate chemotherapy-associated nausea
		Thorazine (chlorpromazine)	Nausea and vomiting associated with migraine headache. First line agent for gastroenteritis. Pregnancy-induced nausea/hyperemesis gravidarum
		Phenargan (promethazine)	
	Butyrophenones	Inapsine (droperdol)	Postoperative nausea and vomiting
		Haldol (haloperidol)	
	Benzamides	Reglan (metoclopramide)	Nausea and vomiting associated with migraine headaches, chemotherapy, and postsurgery
Tigan (trimethobenzamide)		Mildly effective in patients receiving chemotherapy	
Serotonin (5-HT3) antagonists		Zofran (ondansetron)	Cornerstone of therapy for the control of acute emesis with chemotherapy agents with moderate to high emetogenic potential. Second line therapy for gastroenteritis and pregnancy-induced nausea/hyperemesis gravidarum
		Kytril (granisetron)	
		Anzemet (dolasetron)	
Neurokinin (NK1) Receptor Antagonist		Aprepitant (emend)	Prevention of chemotherapy-induced emesis
Corticosteroids		Decadron (dexamethasone)	Prophylaxis of mild to moderately emetogenic chemotherapy
		Solu-Medrol (methylprednisolone)	
Cannabinoids		Marinol (dronabinol)	Chemotherapy-associated nausea and vomiting refractory to other antiemetics
		Cesamet (nabilone)	
Benzodiazepines		Ativan (lorazepam)	Useful in reducing anticipatory emesis. Often used as adjunctive agent to corticosteroids
		Xanax (alprazolam)	

The demands of modern compounding have led to the creation of pharmacies devoted solely to this art. **Specialty Medicine Compounding Pharmacy** has been serving your community for over six years. Here we special-

ize in bio-identical hormone replacement therapies and veterinary medicine, to name a few. We have all the facilities and equipment needed to make anything from topicals to capsules and sterile injectables. We do not ac-

cept insurance, but do provide claim forms with prescriptions we fill. So, next time a patient wants a compound you're unsure of - we'd be happy to serve them!

