



FOUNDATIONS
of Emergency Medicine

Foundations Frameworks

Approach to Nausea and Vomiting

Author: Andrew Ketterer, MD, MA

Editor: Kristen Grabow Moore, MD, MEd

1. Address life threats

- Abnormal vital signs should be attended to first
- Hypotension or tachycardia? Give IV crystalloid

2. Check glucose and urine hCG (if applicable)

- Hypoglycemia can be a cause or consequence of nausea and vomiting, and is a life threat with the same level of import as unstable vital signs
- Pregnancy may be related or unrelated to the patient's symptoms but will change the meds you might be able to give and the workup you might be able to do

3. Consider non-GI causes

- Nausea and vomiting should be taken in the context of other symptoms that point toward the primary causative organ system
 - Neuro: Does the patient have a headache? Focal neurologic symptoms? Altered mental status? Vision changes? Vertigo or neck pain?
 - Cardiac: Are there EKG changes? Are the symptoms exertional? Is the patient high risk for having atypical anginal symptoms (elderly, female, DM)?
 - GI: Is abdominal pain present? Diarrhea? Recent travel? Recurrent symptoms?
 - GU/Gyn: Are there urinary symptoms? Flank pain? Vaginal/penile bleeding or discharge? Pelvic pain? Is the patient pregnant?
 - Endocrine: Does the patient demonstrate Kussmaul respirations or have a fruity odor? Are they markedly dehydrated? Do they have skin changes like bronzing or flank ecchymoses?
 - Toxicologic: Does the patient have a history of depression? Is a toxidrome present?

4. Treat the symptoms

- First line: ondansetron (serotonin antagonist, may cause QTc prolongation)
- Second line: dopamine antagonists (e.g. metoclopramide, but beware of extrapyramidal side effects), antihistamines (e.g. diphenhydramine, but beware of sedation and use these sparingly in geriatric patients), benzodiazepines (beware of sedation and respiratory suppression)
- Special cases: if your patient is pregnant, some medications will be contraindicated. For first trimester nausea/vomiting, ACOG recommends pyridoxine + doxylamine as first line.
- Targeted therapy may be necessary in some patients for whom medications may not be effective (e.g., NG tube in SBO)