



# Nausea and Vomiting

Daniel Markwalter, MD; Justin Brooten, MD

## Initial Management by Etiology



**CNS (↑ ICP from tumor) → Steroids**  
- Dexamethasone 4-10 mg PO/SC/IV

**Anxiety/Anticipatory → Behavioral interventions and benzodiazepines**  
- Mindfulness/relaxation exercises  
- Lorazepam 0.5-2 mg PO/SC/IV



**Vestibular → H1, ACh agents**

- Meclizine 12.5-50 mg PO
- Hydroxyzine 10-50 mg PO
- Diphenhydramine 12.5-50 mg PO/SC/IV
- Promethazine 12.5-25 mg PO/PR/IV
- Scopolamine 1 mg/3 days TD q72h



**Toxic/Metabolic → D2, 5HT3 agents**

- Haloperidol 0.5-2 mg PO/SC/IV
- Droperidol 1.25-2.5 mg SC/IV
- Metoclopramide 10-20 mg PO/SC/IV
- Promethazine 12.5-25 mg PO/PR/IV
- Prochlorperazine 5-10 mg PO/IV or 25 mg PR
- Olanzapine 5 mg PO
- Ondansetron 4-8 mg PO/SC/IV



**Upper GI/Dysmotility → Prokinetic agents or H2 blocker/PPI (if reflux)**

- Metoclopramide 10-20 mg PO/SC/IV
- Famotidine 10-20 mg PO/SC/IV
- Omeprazole 10-40 mg PO
- Pantoprazole 20-40 mg PO or 40 mg IV
- See below for obstruction management



### Unknown

- Ondansetron 4-8 mg PO/SC/IV
- Haloperidol 0.5-2 mg PO/SC/IV
- Droperidol 1.25-2.5 mg SC/IV
- Metoclopramide 10-20 mg PO/SC/IV
- Promethazine 12.5-25 mg PO/PR/IV
- Prochlorperazine 5-10 mg PO/IV or 25 mg PR
- Dexamethasone 4 mg PO/SC/IV



### Obstruction

- Dexamethasone 4 mg SC/IV
- H2 blocker/PPI SC/IV, as above
- Glycopyrrolate 0.2-0.4 mg SC/IV
- Octreotide 100-300 mcg SC/IV
- Haloperidol 0.5-2 mg SC/IV
- NG/rectal tube (if consistent with goals)

### Constipation

- See separate resources on constipation

### Pearls

- Consider polypharmacy as underlying etiology → deprescribe
- Many routes available, including PO, PR, SC, IM, IV, and TD (lots of options if unable to take PO)
- Utilize different classes for combined effect; schedule medications to stay ahead
- Hydrate and correct electrolyte/metabolic disturbances; small, frequent PO over large meals
- Consider mint gum or scented oils; inhaled isopropyl alcohol via alcohol pad is an easy, rapid, and effective option<sup>1,2</sup>



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1. April MD, Oliver JJ, Davis WT, et al. Aromatherapy Versus Oral Ondansetron for Antiemetic Therapy Among Adult Emergency Department Patients: A Randomized Controlled Trial [published correction appears in *Ann Emerg Med*. 2019 May;73(5):552]. *Ann Emerg Med*. 2018;72(2):184-193. doi:10.1016/j.annemergmed.2018.01.016
2. Beadle KL, Helbling AR, Love SL, April MD, Hunter CJ. Isopropyl Alcohol Nasal Inhalation for Nausea in the Emergency Department: A Randomized Controlled Trial. *Ann Emerg Med*. 2016;68(1):1-9.e1. doi:10.1016/j.annemergmed.2015.09.031
3. Portions adapted from: Bodtke A and Ligon K. *Hospice and Palliative Medicine Handbook: A Clinical Guide*. 2016.
4. Portions adapted from: Scullion BF, Lynch M, Nabati L, Abraham J. *Guidelines for Assessment and Management of Nausea and Vomiting*. 2013.
5. Icons from dDara, popcornarts, Mfa Studio, Fardan, Ben Davis, M. Oki Orlando, and Gregor Cresnar of the Noun Project.