Breakthrough PONV in Your PACU?

Although antiemetics are commonly used for PONV prophylaxis, the failure rate may **exceed 30% in high-risk patients.**[1-3]

In patients who failed prophylaxis

can experience **nausea**[2,4]

can experience **vomiting**[2]

Nausea is often more difficult to treat than vomiting.[5]

Nausea and vomiting in the PACU may result in[3,4,6-8]

- ✔ **Clinical complications of varying frequency and severity**
- ✔ **Poor patient satisfaction**
- ✔ **More nursing efforts**
- ✔ **Delayed PACU discharge**
  - In an ambulatory setting, patients with PONV required 14 minutes longer direct nursing time and 1 hour longer PACU length of stay than those without PONV[8]

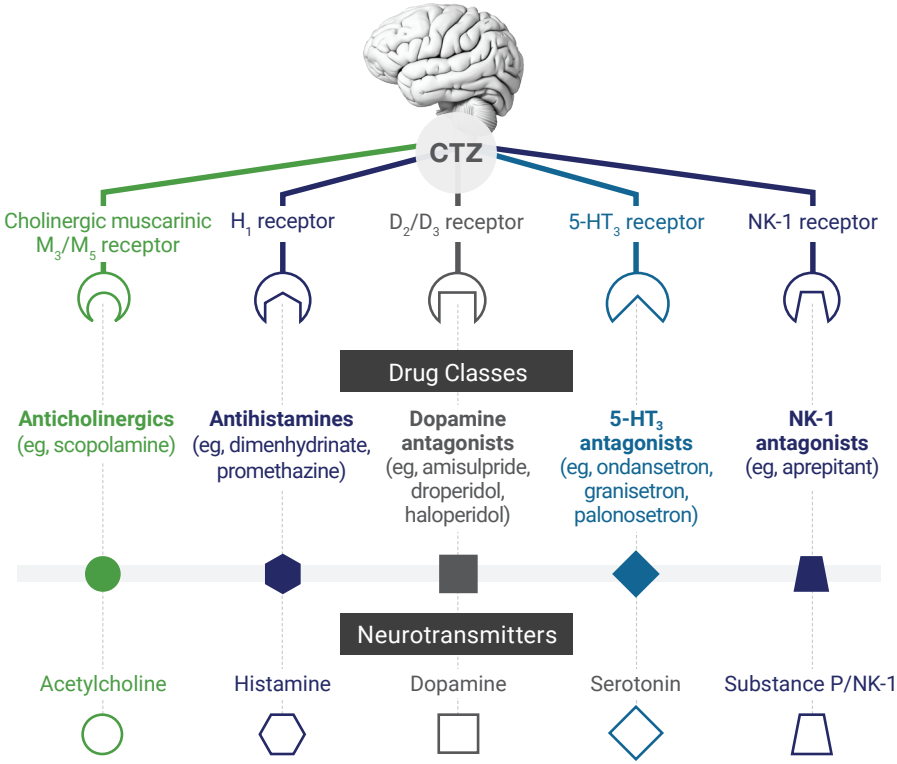
Each minute in the PACU can cost approximately $13[9,*]

Per consensus guidelines, the **treatment of established PONV should be prompt and aggressive** using an antiemetic from a different pharmacological class than the prophylactic drug.[3]

- **Repeated dosing of medication** from the same pharmacological class of the prophylactic drug within the first 6 hours after the initial dose **conferred no additional value**[3]

Nausea and vomiting can be triggered by numerous pathways[5,10]

Multiple neurotransmitters and their receptors (eg, D_2/ D_3, 5-HT_3, M_3/M_5, etc.) can induce nausea and vomiting.[5,10] Therefore, **repeating an antiemetic that works on the same receptors as the prophylactic treatment does not improve efficacy.**[3,11]



How do you choose the appropriate antiemetic to manage breakthrough PONV?

Click to learn more about the impact of PONV

*Data was derived from Phase I PACU of a single facility.

5-HT_3=5-hydroxytryptamine type 3. CTZ=chemoreceptor trigger zone. D_2/D_3=dopamine type 2 and type 3. H_1=histamine type 1. M_3/M_5=muscarinic type 3 and type 5. NK-1=neurokinin-1. PACU=postanesthesia care unit. PONV=postoperative nausea and vomiting.

1. White PF, et al. *Anesth Analg*. 2008;107:452-458. **2.** Habib AS, et al. *Anesthesiology*. 2019;130(2):203-212. **3.** Gan TJ, et al. *Anesth Analg*. 2020;131(2):411-448. **4.** Habib AS, et al. *Curr Med Res Opin*. 2006;22(6):1039-1099. **5.** Kovac AL. In: Gan TJ, Habib A. eds. *Postoperative Nausea and Vomiting: A Practical Guide*. Cambridge, UK: Cambridge University Press; 2016:13-22. **6.** Golembiewski J, et al. *Am J Health-Sys Pharm*. 2005;62:1247-1260. **7.** Hill RP, et al. *Anesthesiology*. 2000;92:958-967. **8.** Parra-Sanchez I, et al. *Can J Anaesth*. 2012;59(4):366-375. **9.** Viellette TLEL, et al. *J Perianesth Nurs*. 2021;36:e13. **10.** Watcha MF, et al. *Anesthesiology*. 1992;77(1):162-184. **11.** Kovac AL, et al. *J Clin Anesth*. 1999;11(6):453-459.

EAGLE PHARMACEUTICALS