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Updated PONV Guidelines Advise a Combo of Antiemetics

SAN FRANCISCO—For optimal treatment of postoperative nausea and vomiting (PONV), clinicians should first establish patients' risk factors and then implement a combination antiemetic strategy, according to the latest guidelines presented at the 2023 annual meeting of the American Society of Anesthesiologists.

Now in its fourth iteration, the Consensus Guidelines for the Management of Postoperative Nausea and Vomiting provide recommendations on the identification of high-risk patients, management of baseline PONV risks, choices for prophylaxis and rescue treatment (*Anesth Analg* 2020;131[2]:411-448).

In the updated guidelines, Tong J. (T.J.) Gan, MD, and his colleagues also advise on implementing an institutional PONV protocol. Additionally, they highlight evidence of effectiveness in the management of PONV for newer drugs, such as second-generation 5-hydroxytryptamine 3 [5-HT3] receptor antagonists, neurokinin 1 (NK1) receptor antagonists and dopamine antagonists. Gan, the Helen Shafer Fly Distinguished Professor and head of the Division of Anesthesiology, Critical Care and Pain Medicine at The University of Texas MD Anderson Cancer Center, in Houston, noted that the guidelines have been endorsed by 23 professional societies and organizations.

The most common risk factors for PONV are female sex, history of motion sickness, opioid use and nonsmoking status, according to Gan. These factors underscore the importance of prophylaxis among at-risk patients, he said.



According to the guidelines, a combination of antiemetic drugs may yield improved patient outcomes because the drugs target different receptors. The most common combination used to alleviate PONV is a 5-HT3 antagonist with a steroid (dexamethasone), Gan said. In addition to 5-HT3 antagonists, anesthesiologists may use a combination of aprepitant, dexamethasone, dopamine antagonists, transdermal scopolamine, propofol and acupuncture. "But I would not recommend using more than three—maximum four—prophylactic

antiemetics," he noted. "I would reserve some antiemetics because some patients potentially still could throw up despite your prophylactic agents."

Regarding ambulatory surgery patients, the most common adverse events reported may be attributed to opioid-related side effects, which include nausea, vomiting, sedation, pruritus, constipation and difficulty urinating. Gan said if patients received nonopioid or opioid minimization treatment, the incidence of PONV would be reduced. This notion is based on a recent study (*Anaesthesia* 2019;74[5]:651-662).

"Twenty-three randomized controlled trials—over 1,300 patients—in a systematic review and meta-analysis showed that if you have an opioid-free anesthetic, your incidence of PONV is much lower.

PONV is common and preventable, and the patients beg you to do it," Gan said.

By Landon Gray

Gan reported no relevant financial disclosures. He is a member of the Anesthesiology News editorial board.