Correlation of Ondansetron Timing in Postoperative Nausea and Vomiting: A Retrospective Evaluation Amongst Adult Patients Receiving General Anesthesia

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The literature reports approximately 30% of patients who undergo general anesthesia will be affected by PONV.1-2 In addition, research evidence supports increased effectiveness of ondansetron when administered during emergence of emesis as an avenue to combat the incidence of PONV.3 This project mirrored the literature by correlating a relationship between ondansetron timing administration on emergence and reducing the risk of PONV at 2, 6, and 24 hours. When controlling for Apfel risk factors and confounding bias, this project PONV incidence was consistent with literature, depicting a reduction in PONV incidence at 2, 6, and 24 hours. The prevalence of a rescue antimetic medication at 2, 6, and 24 hours postoperatively was also statistically significant for the intervention group compared to the induction group. Understanding the pharmacokinetics of ondansetron, especially its half-life of 3.6 (+/- 1) hours, provides insight regarding the pharmacokinetiCs of time serotonin receptors may be blocked, and thus prevention of subsequent PONV occurrences.7 Of the patients that received ondansetron at PSI/MC and PHHC, 71% of patients received ondansetron on emergence. Anesthesia providers should continue to tailor prophylactic antimetic administration based on patient selection and antimetic pharmacokinetic profiles.

References