

Prophylactic intravenous metoclopramide use in patients given intravenous tramadol: A retrospective cross-sectional study [TRAMAX STUDY]

Venthen Keerthy¹, Asogan Pavithrah², Tan Yu Xin¹

¹Pharmacy Department Hospital Tuanku Ampuan Najihah, Negeri Sembilan, ²Emergency & Trauma Department Hospital Tuanku Ampuan Najihah, Negeri Sembilan

ABSTRACT

Introduction: The routine use of Intravenous prophylactic antiemetics with Intravenous opioid analgesics is common practice in the Emergency & Trauma Department (ETD) of Hospital Tuanku Ampuan Najihah (HTAN) to prevent opioid-induced nausea and vomiting. However, this practice has dubious clinical benefits, generates additional costs, and might expose patients to potentially adverse effects. Approximately 6000 ampules of IV Metoclopramide are used by ETD HTAN annually. The sum seems ignorable, but in 10 years, this may total over RM100,000. The study aimed to evaluate the benefit of intravenous metoclopramide prophylaxis in patients receiving intravenous tramadol for acute pain relief. **Methods:** A retrospective cross-sectional study was conducted at the ETD of HTAN using convenient sampling. Patient details were extracted from the medical record via a standardized data collection form and analyzed with the Statistical Package for Social Sciences version 25. **Results:** A total of 272 patients were included, half of whom were given intravenous Metoclopramide prophylactically. The overall incidence of nausea in the study population was 12.1%, with most cases rated mild. Only two patients (0.7%) in the metoclopramide group vomited within 2 hours of intravenous tramadol administration, which did not demonstrate a statistically significant association between metoclopramide prophylaxis and reduced emesis episode ($p=0.498$, Fisher's exact test). **Conclusion:** Based on the study, intravenous Metoclopramide is no longer recommended as prophylaxis for tramadol-treated patients due to the low incidence of nausea and vomiting. Usage has been greatly reduced, and education will be extended to cluster hospitals to reciprocate appropriate adherence to evidence-based prescribing practices.