

Perioperative administration of Emend® (aprepitant) at a tertiary care children's hospital: a 12 month survey

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Objective: To review initial 12-month experience with Emend® (aprepitant) administration in a tertiary care children's hospital upon its introduction to the perioperative setting

Introduction: Aprepitant (Emend®) is a novel antiemetic agent that works through antagonism of neurokinin-1 (NK-1) receptors. To date, there are limited data regarding its use to prevent postoperative nausea and vomiting (PONV) in children. We retrospectively reviewed our initial 12-months experience with aprepitant after it was made available for perioperative use.

Methods: The anesthetic records of patients who received aprepitant were retrospectively reviewed and demographic, surgical, and medication data retrieved.

Results: The study cohort included 31 patients (15 male and 16 female) ranging in age from 4 to 27 years (15.7 ± 7.4 years) and in weight from 14.4 to 175.7 kilograms (59.3 ± 30.2 kgs). Most of the patients (30 of 31) received the capsule form and 1 received the liquid. The average dose of aprepitant administered was 0.9 ± 0.6 mg/kg; however, only one patient received dosing expressed as mg/kg, and the majority received a 40 mg capsule. All of the patients in the cohort had either a previous history of PONV or risk factors for PONV. PONV occurred in the PACU in 1 patient and during the first 24 postoperative hours in 3 additional patients. No adverse effects related to aprepitant use were noted.

Conclusions: Aprepitant was easily added to the preoperative regimen for pediatric patients who may require it. Our approach limited overuse and subsequent cost concerns. Future studies with a comparator group and a greater sample size are needed to demonstrate its efficacy, especially in comparison to time-honored agents such as ondansetron. No adverse effects were noted in our limited study cohort.