

EFFICACY AND SAFETY OF PROCEDURAL SEDATION BY A PEDIATRIC SEDATION TEAM USING PROPOFOL

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The aim of our study was to determine the effectiveness and safety of propofol sedation in pediatric patients undergoing various outpatient procedures as performed by a Pediatric Sedation Team.

A retrospective review of the medical records from April 2003 to November 2004 of the **PASS Team** (Pediatric Analgesia and Sedation Service) was conducted for pediatric patients who received propofol for outpatient procedures at our Children's Hospital. Patient demographics, procedure type, total propofol dose, vital signs, and complications related to propofol procedural sedation were obtained for each patient.

One hundred eighty-eight separate procedures were performed in 105 patients. The mean age was 4.5 ± 3.3 , (range 0.67-17) years; 66% were male. Eighty-six percent of the cases were for radiology procedures (MRI, Nuclear Medicine, fluoroscopy) and 14% for painful procedures performed in the pediatric intensive care unit. The mean total propofol dose was 9 ± 5.5 mg/kg (n=145). Propofol mean onset time was 4.3 ± 5.1 minutes and peak effect occurred at 10.7 ± 8.7 minutes. The mean length of stay was 91.8 ± 36.1 (33 to 225) minutes and mean sedation duration 61.5 ± 28.6 (11 to 155) minutes. The mean baseline systolic and diastolic blood pressures were 110 ± 16 and 64 ± 14 mmHg, mean systolic blood pressure was lowered by 24 ± 21 and mean diastolic blood pressure 22 ± 18 mmHg. Seventy-three percent of procedures had no complications during sedation; however, hypotension (<30% drop in BP) occurred in 21% and O₂ saturation less than 90% in 6%. One procedure was stopped due to desaturation.

Propofol use by a Pediatric Sedation Team comprised of Pediatric Emergency Medicine Physicians and Pediatric Intensivists with advanced pediatric airway skills was an effective means of procedural sedation for various outpatient procedures. Complications such as desaturations and hypotension were recognized and appropriately treated such that only one case needed to be aborted secondary to desaturation. No patient required endotracheal intubation. The incidence of hypotension was higher than previously reported; however, questions remain about its clinical significance.