

# Opioid Prescribing Practices for At-Risk Pediatric Populations Undergoing Ambulatory Surgery

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## ABSTRACT

**OBJECTIVE:** Pediatric patients with sleep-disordered breathing (SDB) and obesity are at risk for opioid-induced respiratory depression. Although monitoring in the inpatient setting allows for early recognition of opioid-related adverse events, there is far less vigilance after ambulatory surgery as patients are discharged home. Guidelines for proper opioid dosing in these pediatric subsets have not been established. We sought to determine if at-risk children were more likely to receive doses of opioids outside the recommended range.

**METHODS:** Baseline opioid prescribing data for all outpatient surgery patients receiving an opioid prescription between January 2019 and June 2020 were retrospectively reviewed. Patients with SDB or obesity were identified. To obtain more information about prescribing practices, we analyzed patient demographics, size descriptors used for calculations, and prescription characteristics (dose, duration, and prescribing surgical service).

**RESULTS:** A total of 4674 patients received an opioid prescription after outpatient surgery. Of those, 173 patients had SDB and 128 were obese. Surgical subspecialties rendering most of the opioid prescriptions included otolaryngology and orthopedics. Obese patients were more likely (64%) to be prescribed opioids using ideal weight at higher mg/kg doses ( $>0.05$  mg/kg; 83.3%;  $p < 0.0001$ ). When providers used actual body weight, lower mg/kg doses were more likely to be used (53.7%;  $p < 0.0001$ ). No prescriptions used lean body mass.

**CONCLUSIONS:** Overweight/obese children were more likely to receive opioid doses outside the recommended range. Variability in prescribing patterns demonstrates the need for more detailed guidelines to minimize the risk of opioid-induced respiratory complications in vulnerable pediatric populations.