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**Objective:**Determine the incidence of unplanned admissions following surgery at a pediatric ambulatory center and examine the factors affecting these outcomes as they compare to published data.

**Background:** Outpatient surgery has proven to be an effective way to treat healthy pediatric patients while maintaining a high level of quality and keeping costs to a minimum<sup>1</sup>. Improvements in surgical and anesthetic techniques, patient demand, and the ongoing push for cost-containment have led to a dramatic increase in the number and type of surgical procedures performed in the outpatient setting<sup>2</sup>. Nearly 30% of surgeries performed at our institution last year occurred at our outpatient facility.

Although unplanned hospital admissions following pediatric ambulatory surgery are relatively uncommon<sup>3</sup>, the impact of such outcomes on family satisfaction, cost and resources can be significant. The rate of unplanned admissions represents a measure of outcome and quality of care.

**Methods and Results:**We performed a retrospective data survey to determine the incidence and factors related to unplanned admissions in children undergoing ambulatory surgery. This survey covers the period 3/2011-8/2013 at our outpatient facility. Unplanned admissions were analyzed for patient demographics & medical history, reason for admission, surgical procedure and perioperative management.

Of 24,829 anesthetics performed during the study period, 56 anesthetics (0.22%) resulted in unplanned admissions. Unplanned admissions were most common following otolaryngology procedures(55%) and orthopedic procedures(20%). Unplanned admissions were primarily for respiratory complications (50%) or postoperative nausea and vomiting (14%). Additional indications for admission included pain control and surgical reasons. The ages of patients experiencing unplanned admissions had a bimodal distribution. Nearly half the unplanned admissions were in the 4-8 yr-old age range, with indications for admission related to oxygen requirement or PONV. Another 29% of admissions were patients age > 12 admitted mainly for pain control after orthopedic procedures.

**Conclusion:**The rate of unplanned hospital admission is exceedingly low following pediatric outpatient surgery at our facility and compares favorably to available data<sup>1-5</sup>. The commonest causes for unplanned admission are consistent with causes cited in the adult and pediatric literature<sup>4-5</sup>. Our data indicate that quality improvement measures going forward should focus on reducing respiratory complications and PONV, and optimizing postoperative analgesia.

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