

# AT WHAT AGE IS AMBULATORY SURGERY SAFE IN INFANTS? A SURVEY OF PRACTICES OF PEDIATRIC ANESTHESIOLOGY PROGRAMS IN THE UNITED STATES.

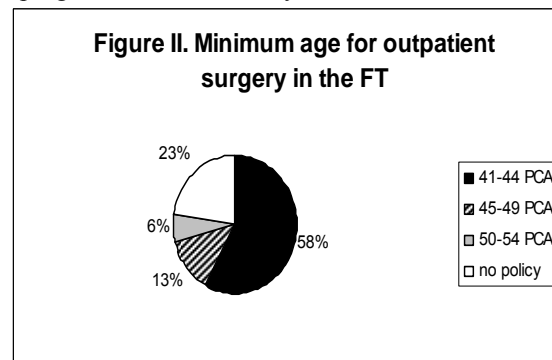
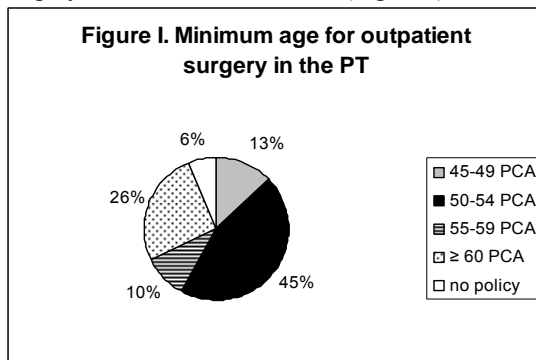
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**Introduction:** Several studies have examined the risk factors for postoperative apnea after surgery in the preterm infant (PT). Many risk factors have been identified, such as low post-conceptual (PCA) and gestational age, apnea at home, and anemia (1). There is some anecdotal but minimal objective data regarding risk factors for full-term (FT) infants. Furthermore, while recommendations have been issued for the perioperative management of PT infants (3), there are no established guidelines. In this study, we explored the current practices in the perioperative management of PT and FT infants presenting for ambulatory surgery in medical centers with pediatric anesthesiology training programs in the United States.

**Methods:** A questionnaire was sent to the program directors of the 44 ACGME accredited Pediatric Anesthesiology programs, asking: **1.** what is the minimum age for outpatient surgery in PT infants? **2.** Do you check a preoperative hemoglobin level (Hb)? **3.** How long do you monitor PT infants in PACU? **4.** Do you discharge infants requiring postoperative monitoring who are already on home apnea monitor? **5.** Do you discharge infants requiring postoperative monitoring if regional techniques were used? **6.** Is IV caffeine given? **7.** What is the minimum age for outpatient surgery in FT infants? **8.** How long do you monitor FT infants in PACU? **9.** When patients who do not meet criteria for outpatient surgery are scheduled, are the patients admitted or is the case cancelled? -

**Results:** There was a 70% response rate (31/44 programs). The range of minimum PCA for outpatient surgery in PT was 45-60 weeks (Figure I). 54% of the programs do not routinely check Hb.



65% observe patients  $\geq 2$  hours. 70% don't discharge infants requiring monitoring even if on home apnea-monitor. 86% don't routinely discharge after regional anesthesia. Approximately 60% use caffeine. Range of minimum PCA for outpatient surgery in FT infants was 41-60 weeks. (Figure II). 86% admit patients inappropriately scheduled not meeting criteria for outpatient surgery. The majority of centers use a minimum PCA for outpatient surgery of 50-54 weeks (45%) followed by PCA  $>60$  weeks F (26%) in PT (Figure I); 41- 44 weeks (58%) in FT (Figure II). Several departments have no established policies for FT.

**Discussion:** There is no consensus regarding the minimum age and duration of monitoring for ambulatory anesthesia. Although there have been prospective studies examining risk factors for postoperative complications in the former PT, there are no studies looking at these risk factors in the FT. We looked at the current practice among ACGME accredited pediatric anesthesia programs and found wide variation. The lack of studies in FT may reflect either an extremely low incidence of postoperative complications in this group or a lack of reporting. A large prospective study looking at postoperative complications in FT infants would provide evidence for improved management of ambulatory surgery in infants.

**References**

1. Cote CJ, et al *Anesthesiology* 1995;82:809-822.
2. Craven PD, et al... *Cochrane Database Syst Rev* 2003:3.
3. S. Walther-Larsen and L. S. Rasmussen. *Acta Anaesthesil Scand* 2006; 50:883-893.