Introduction
In our institution, the flexible laryngeal mask airway (FLMA) is the preferred airway for pediatric patients undergoing adenotonsillectomy. It provides an airway that is simple to use and has less airway stimulation without compromising patient safety. However, the question of aspiration limits its use in the obese population. In this study, we reviewed our experience with the FLMA in our obese pediatric population.

Methods
After obtaining IRB approval, we performed a retrospective chart review of 300 pediatric patients undergoing adenotonsillectomy. Out of three hundred patients, 52 patients were classified as obese as per CDC BMI percentile criteria. We then reviewed these charts for intraoperative and postoperative complications.

Results
Of the 52 charts, two were eliminated for missing data. The FLMA was placed in 42 patients and the endotracheal tube (ETT) in 8 patients. With the exception of two patients with a BMI over 40, there was no clear pattern for airway selection. One patient started with a FLMA that was exchanged to an ETT because of a leak at 15 cm H2O pressure. We also reviewed the surgical and anesthesia times for 36 patients only having adenotonsillectomy (we defined anesthesia time as the time from entering the operating room to incision plus the time from the end of surgery to leaving the room). Average surgical time with ETT patients was 40.6 minutes and 36.8 minutes with the FLMA. Anesthesia time with the ETT was 28.5 minutes and 16.8 minutes with the FLMA. Postoperatively, one patient in the ETT group had an episode of oxygen desaturation to 78-84% that resolved with positioning. One patient in the FLMA had stertor on awakening and harsh breath sounds in the PACU that resolved without other respiratory issues.

Discussion
Over the years, more obese pediatric patients are presenting for surgery. Recent studies have shown that these patients are at risk for critical respiratory events such as difficult mask airway and laryngoscopy, upper airway obstruction and bronchospasm (1,2). Laryngeal mask airway (LMA) provides an alternative airway to these patients. While there are aspiration concerns using the LMA in this population, a recent study suggested no increased incidence with its use (3). In our study, we showed that our obese patients with the FLMA had no aspiration and minor respiratory events intraoperatively and postoperatively. We also saw a large difference in the anesthesia time with the FLMA group compared to the ETT group. While the sample size is small, we feel that the FLMA is a safe and efficient airway in obese patients having adenotonsillectomy.

References