

[NM-196] A Descriptive Analysis of Transversus Abdominis Plane (TAP) Blocks in Infants, Children, and Adolescents; Lessons Learned from the Pediatric Regional Anesthesia Network (PRAN) Database

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**BACKGROUND:** The transversus abdominis plane block (TAP block) has been used widely and has become popular in the pediatric population over the last few years. This paper seeks to explore our experience with TAP blocks at a single center (LCH), which is part of the Pediatric Regional Anesthesia Network (PRAN), and summarize it to provide some practical tips for clinical use, given the large number of TAP blocks we perform in our center. **METHODS:** We queried the PRAN database for TAP blocks submitted by LCH over the last six years and completed a basic statistical analysis using Excel 2010 and SAS software. **RESULTS:** Over the last six years our center submitted information on 991 TAP blocks to PRAN. These blocks spanned the entire pediatric and young adult population and all ASA classes. The mean volume injected in mL/kg/side in a bilateral block is 0.27 with a median of 0.24 and standard deviation of 0.14. The mean mg/kg/side dose of local anesthetic used in each injection was 1.06 mg/kg while the median was 1. We had no significant intraoperative or postoperative complications in any of the 991 blocks. **CONCLUSIONS:** The TAP block is a safe technique for use in neonates, infants, children, and adolescents undergoing abdominal surgery. Volumes of local anesthetic suggested in the literature are lower than those commonly used in our practice. Additional prospective clinical trials are required to establish the efficacy of the TAP block versus other analgesic modalities and to establish the optimal timing, local anesthetic volume, and local anesthetic concentration for various pediatric surgical procedures.

**SUPPLEMENTAL FIGURES:** Graph representation of percentage of patients versus block volumes per side, Graph representation of percentage of patients versus block volumes per side per kg patient weight with normal line, Ultrasound image of TAP block planes.



