

BACKGROUND:

The use of regional anesthesia blocks during surgery has shown potential to enhance post-operative recovery, decrease healthcare costs, shorten hospital stays, and improved patient outcomes. There has been limited experience in the use of regional anesthesia in pediatric cases. Research indicates that patients often experience optimal recovery at home, reporting greater comfort and satisfaction with their surgical experience and recovery¹. Recent studies show that using short-term postoperative continuous peripheral nerve blocks (CPNB) can reduce the incidence and severity of chronic, persistent post-surgical pain². The purpose of the study is to assess data on postoperative pain scores and patient-reported satisfaction since the inception of regional anesthesia service at the Children’s Hospital of Georgia.

METHODS:

- Prospective, observational study
- October 2022 to March 2024
- 333 children from 0 to 21 years of age
- Peripheral nerve blocks, neuraxial blocks, and continuous catheter infusions

RESULTS

- Progressive increase in total PRA blocks, with an average of 17.8 cases per month (Graph 1).
- 68.4% were orthopedic cases followed by pediatric surgery with 15.3% of cases.
- Most of the blocks were lower extremity blocks n=102 (59.5%) and neuraxial n=75 (22.5%) (Graph 2).
- Patients reported high satisfaction scores and better recovery experiences when PRA techniques were implemented for pain management, ranging from 7.37 to 10 over 10 with a mean of 9.01 (Graph 3).

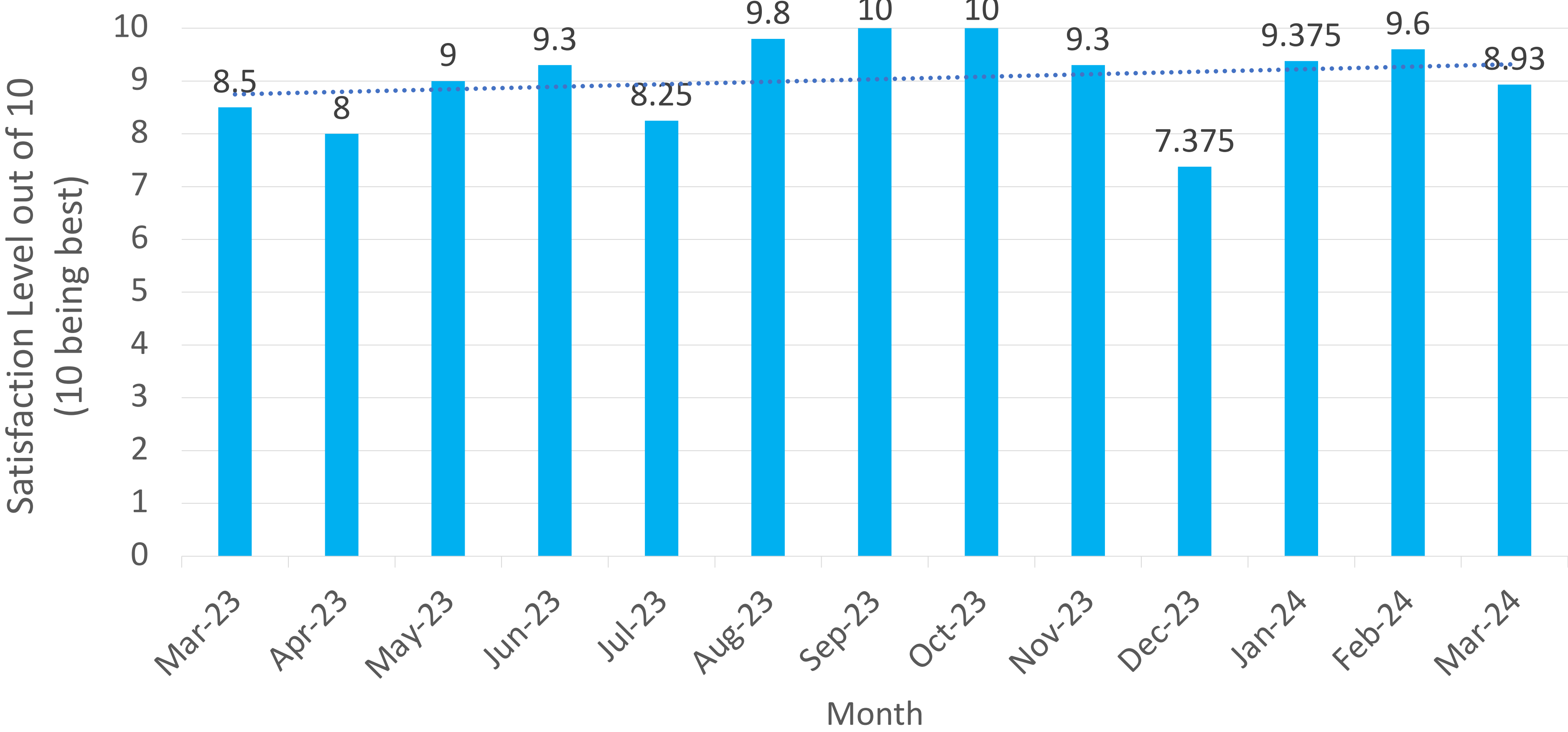
Establishing a Pediatric Acute Pain Service: Impact on Recovery and Patient Satisfaction in Pediatric Postoperative Care

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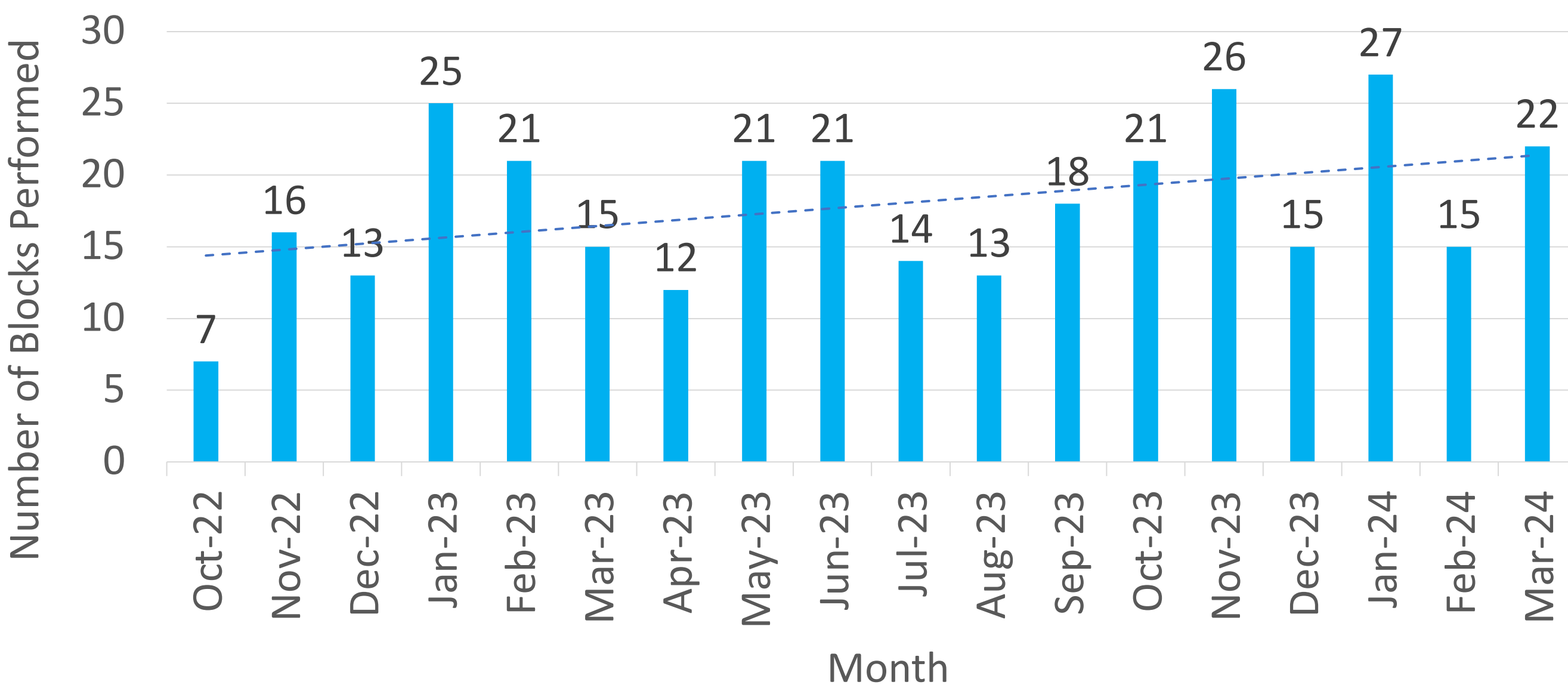
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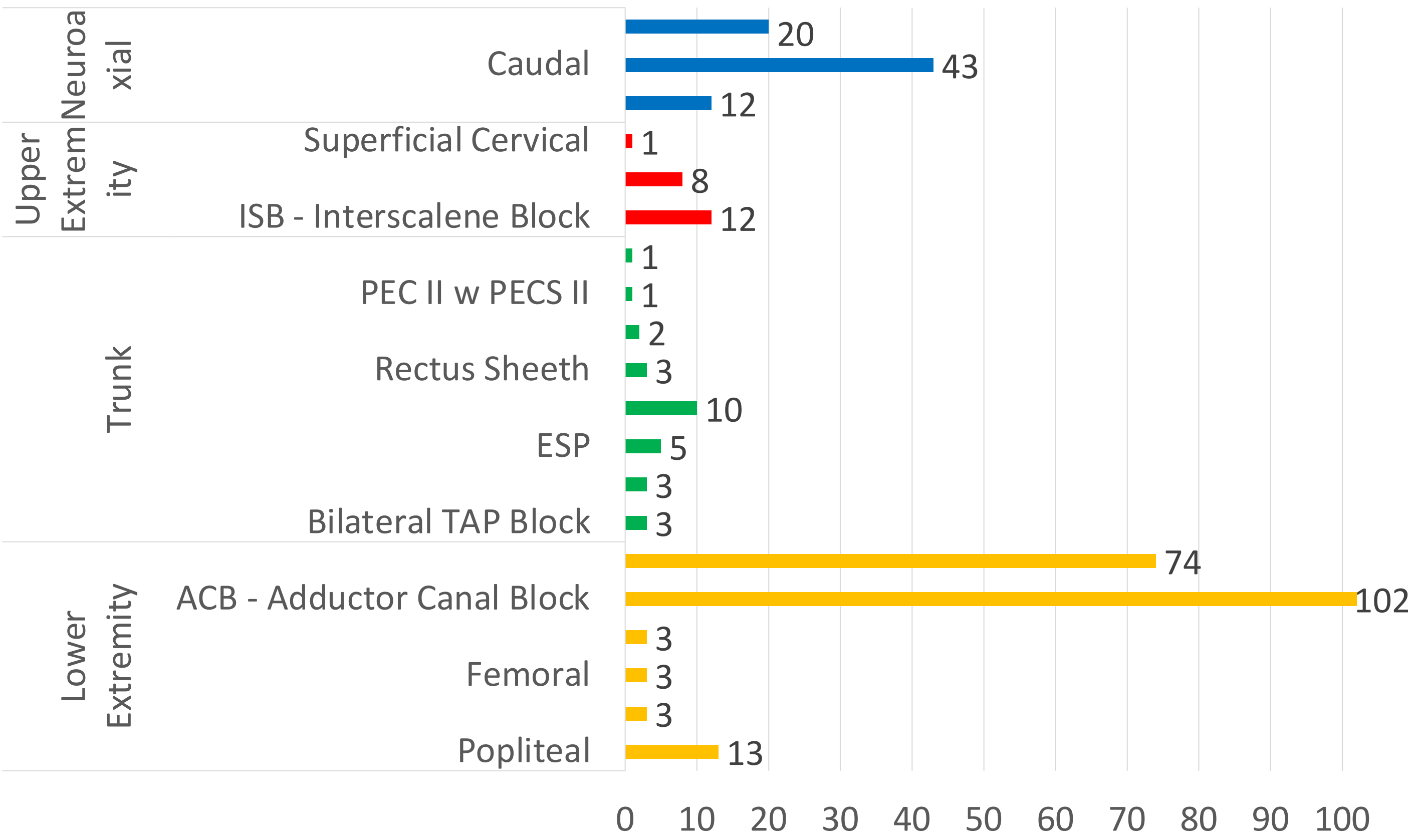
Improved Patient Satisfaction in post-operative recovery with implementation of formal Pediatric Regional Anesthesia (PRA) service in patients at Children’s Hospital of Georgia.



Graph 3. Average Patient Satisfaction Score



Graph 1. Total Blocks by Month from Oct 2022 – March 2024



Graph 2. Total Blocks by Type

Discussion:

Implementing a PRA service improves patient outcomes by reducing hospital stays, cutting costs, and enhancing recovery and satisfaction. This study supports the broader adoption of regional anesthesia techniques in pediatric patients.

References:

1. Elhassan, A et al. Perioperative surgical home models and enhanced recovery after surgery. Journal of Anaesthesiology Clinical Pharmacology 35(Suppl 1):p S46-S50, April 2019.

2. Ilfeld BM. Continuous Peripheral Nerve Blocks: An Update of the Published Evidence and Comparison With Novel, Alternative Analgesic Modalities. Anesth Analg. 2017 Jan;124(1):308-335.