

# The Pediatricians Providing Perioperative Care Project (P4): What are the educational needs of pediatric residents to optimize perioperative care of children?



**PEDIATRIC ACCM**  
ANESTHESIOLOGY \* CRITICAL CARE \* PAIN MEDICINE

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## Background

- Pediatricians are critical in the preop assessment, care and postop care of children.<sup>1,2</sup>
- Formal periop care training not required in pediatrics residency.<sup>3</sup>
- Little work done to understand training needs in these domains.<sup>4</sup>
- Better communication between medical and intraoperative teams improves outcomes.<sup>5</sup>

## Methods and Aims

- Cross-sectional surveys of pediatric residents and anesthesiologists in a single tertiary care center.
- Descriptive and comparative statistics completed.
- Thematic analysis performed for open-ended responses.

## Aims

1. Evaluate pediatric resident (PR) and anesthesiologist (PA) perceptions on the pediatrician's role in perioperative care.
2. Explore PR training adequacy in perioperative care, communication with intraoperative teams.
3. Establish perioperative care educational goals for PR.

## Results

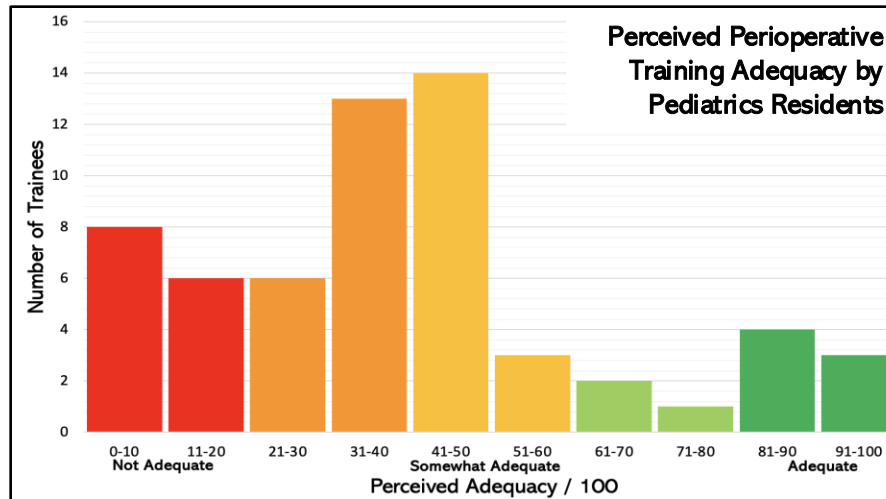


Figure 1: Pediatrics resident ratings of current adequacy of perioperative training on a 100-point scale.

Themes from Pediatric Resident Surveys		N = 61
Preop Assessment and Care	Comprehensive preoperative assessment	14 (23%)
	Preoperative risk stratification and ASA Classification	4 (7%)
	Preoperative medical optimization and medication management	4 (7%)
Postop Care	Preoperative URIs and Indications for Procedure Cancellation	3 (5%)
	Awareness and management of common postoperative complications and emergencies	10 (17%)
	Wound and drain (IE chest tube) management	6 (10%)
Comm Challenges	Postoperative pain management	5 (8%)
	Limited surgeon and anesthesiologist availability for communication	14 (23%)
	Indications to communicate with anesthesiology team and identification of who to reach out to	13 (21%)
Other	Challenges in understanding operative course due to lack of handoff or inadequate documentation	10 (16%)
	Perioperative care of children with medical complexity	3 (5%)

Table 2: Themes from PR responses to "What aspects of preoperative or postoperative care do you think would be most helpful for you to have more training in during residency?" and "What are the biggest barriers in communication with pediatric intraoperative teams?"

	Resident Median/100 (IQR)	Peds Anes Median/100 (IQR)	p-value
Importance of pediatrician involvement in perioperative care	75 (69-90)	70 (57-84)	0.224
Pediatric resident preoperative care comfort / competence	50 (30-69)	24 (16-33)	<0.001
Pediatric resident postoperative care comfort / competence	50 (30-64)	25 (18-38)	<0.001

Table 1: Resident/Anesthesiologist ratings/100 on importance of pediatrician involvement and comfort/competence in perioperative care.

Themes from Pediatric Anesthesiologist Surveys		N = 24
Preop Assessment	Accurate assessment of preoperative risk and understanding of implications of URIs	7 (29%)
	Preoperative Risk Stratification and ASA Classification	4 (7%)
	Preoperative counseling and preparing the child/family for surgery	2 (8%)
	Indications for Procedure Cancellation	3 (5%)
Preop Care	Preoperative fasting guidelines	7 (29%)
	Indications to hold or continue medications through surgery and their impact	5 (21%)
	When to coordinate / communicate with operative teams	5 (21%)
Postop Care	Management of postoperative pain	4 (17%)
	Management of postoperative complications	2 (8%)
Anesthesia Knowledge	Differences between sedation and general anesthesia	2 (8%)
	Correct understanding/counseling of anesthetic risks	4 (17%)

Table 3: Themes from pediatric anesthesiologist responses to "What topics surrounding the perioperative management of surgical pediatric patients do you feel pediatricians should receive more comprehensive training in?"

## Discussion / Conclusions

- First study exploring perspectives on pediatrician perioperative care training.
- Pediatricians are integral in the perioperative care of children.
- Pediatricians receive inadequate training to develop competence in perioperative care.
- Next step: National multi-center study across multiple programs.

## Resident Learning Goals

1. Preoperative **risk assessment / stratification** and counseling, **indications for case cancellation**, and **medication / fasting management**.
2. Identification and management of **postoperative complications** and **postoperative pain**.
3. How and **what is critical to communicate** with intraoperative teams.

## References

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