

Pediatric Anesthesia for the CA-1 Resident

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Learner Audience: Resident – Clinical Anesthesia, Year 1

Background: Pediatric anesthesia is a challenging subspecialty that requires substantial preparation to maximize the educational benefit. Many anesthesia residency programs introduce pediatric anesthesia to residents at the CA-2 level. This often consists of a two-month rotation that may be the entirety of their pediatric anesthesia training, designed to prepare the resident to practice basic pediatric anesthesia as a consultant upon graduation and board certification.

Needs Assessment: It has been noted that the knowledge and performance of residents from programs that offer minimal exposure to pediatric anesthesia are superior to that of residents from programs offering no exposure. Discussions with the Children's faculty and review of anonymous resident end-of-rotation evaluations of clinical and didactic experiences support this observation. The differences noted between the two groups of residents underscored the need for improved preparation prior to starting the subspecialty rotation.

Hypothesis: A structured curriculum for all CA-1s prior to their pediatric rotation will improve both the clinical and written exam performance of trainees.

Curriculum Design: Review of published pediatric anesthesia fellowship curricula and Children's faculty input were used in the design of the curriculum. Content, which includes the basics of pediatric anesthesia as outlined by the Society for Pediatric Anesthesia and Cote's Practice of Anesthesia for Infants and Children, is to be presented in lecture and problem-based learning formats. Supplementary reading material will be provided prior to the intervention. Learner evaluation will use a pediatric anesthesia quiz, consisting of questions culled from prior published written board examination questions, in-service scores (pediatric subsection) from the beginning of the CA-1 year and at the end of CA-1 and CA-2 years, and pediatric subspecialty rotation evaluations.

Outcome: The effectiveness of the curriculum will be assessed by tracking changes in in-service scores, the pediatric anesthesia quiz, and clinical assessments by Children's faculty. The proposed curriculum is anticipated to improve both the Medical Knowledge and Patient Care performance of future residents rotating in pediatric anesthesia. If successful, this curriculum could be applied to programs with and without separate pediatric facilities.