Pediatric Anesthesiology and The Society for Pediatric Anesthesia

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Pediatric Anesthesiology

The practice of pediatric anesthesiology is an exciting and challenging subspecialty of anesthesiology practice. Working with children requires an understanding of pediatric physiology and pathophysiology as children differ from adults. The patient mix is broad, and parental relationships are important.

It is not uncommon when having a routine procedure, such as tonsillectomy, that the parent is most concerned about the anesthetic. The art of this practice entails the ability to communicate effectively with both children and their parents, and to engender their trust in a limited period of time.

Anesthetic techniques have evolved and are increasingly tailored to the unique needs of children. Subsequently, the increased safety of pediatric perioperative care has provided an environment for more complex surgical procedures. For example, early anesthetics provided three to four minutes of unconsciousness after inhaling from an ether-soaked rag, and now a 600-gram, 24-week premature infant can be safely anesthetized for tracheoesophageal fistula repair.

Anesthesiology residency training can include exposure to general pediatrics during the intern year and pediatric anesthesiology rotations during the CA-2 and CA-3 years. The goal is for the resident to manage the perioperative care for children with diverse age ranges, variations on the health-illness continuum, and who require a variety of surgical procedures. The management of pediatric acute, chronic and perioperative pain is also an important aspect of pediatric anesthesia practice.

Additional training and board certification is available through a one-year fellowship in pediatric anesthesiology. Pediatric fellowship presents the opportunity to develop the clinical judgment and skills to provide perioperative care for complex patients such as neonates, children with craniofacial and metabolic syndromes, and children with congenital cardiac defects. The fellowship also includes experience in the management of critically ill children in the pediatric intensive care unit, management of chronic pain, and performance of regional and neuraxial techniques such as peripheral nerve blocks and epidurals under general anesthesia.

The Society for Pediatric Anesthesia

The Society for Pediatric Anesthesia (SPA) has been and continues to be instrumental in the advancement of pediatric anesthesiology. Established in 1986, their mission “to foster quality anesthesia perioperative care and alleviate pain in children” is an ongoing venture. This mission is accomplished by: 1) Assembling in one group anesthesiologists who practice and have a strong interest in pediatric anesthesia; 2) Advancing the study of pediatric anesthesia and contributing to its growth and influence; 3) Encouraging research and scientific progress in pediatric anesthesia; 4) Serving as a forum for discussion of issues (scientific and political) of importance to pediatric anesthesia; and 5) Supporting the goals of the American Society of Anesthesiologists (ASA) and the American Academy of Pediatrics (AAP).

The membership of the SPA includes members from the United States and abroad, and the is comprised of anesthesiologists from a broad spectrum of practice models. The biannual SPA meetings, held in conjunction with the American Academy of Pediatrics (AAP), provide a venue for critical review of current research, lectures, skills workshops and networking. The membership of the AAP provides invaluable expertise regarding the care of the pediatric patient, and the SPA–AAP collaboration is a key component to the richness of the SPA learning experience. The Congenital Cardiac Anesthesiology Society and The Society for Pediatric Pain Medicine are specialty societies within the SPA.

Subspecialty research grants are provided by the pediatric counsel of the Foundation for Anesthesia Education and Research (FAER). The grants target budding researchers at both the resident and faculty level. The research grants support individuals with a focus on education, clinical and basic research, and development of the skills required to compete for National Institutes of Health funding.

Medical students who are interested in anesthesiology, pediatrics, pain management, teaching and research will find the subspecialty of pediatric anesthesiology to be a fulfilling career. Please refer to the SPA website (www.pedsanesthesia.org) for additional information about pediatric anesthesiology, SPA, and the SPA quarterly newsletter.
Anesthesiology residency training consists of a clinical base (CB) year plus three years of clinical anesthesia training (CA-1 to CA-3 years). Prospective anesthesiology trainees entering the National Internship and Residency Matching Program (NIRMP) may match either into a categorical internship as part of an overall four-year CB and CA program. Alternatively, they may match into a preliminary internship that will serve as the CB year, plus match into a separate “advanced” anesthesia residency position for the CA-1 through CA-3 years of training. On a case-by-case basis, departments can apply to both the Anesthesiology RRC and the ABA for approval to offer a prospective combined five-year program consisting of a CB year, a residency, plus an extra year of unaccredited research, or a CB year, a residency, plus an extra year of accredited fellowship training. In the scenario of a combined residency plus fellowship, at least three-fourths of the fellowship training time must occur in the fifth year, when the resident has sufficient experience to function at the fellowship level. A department offering either or both such options usually has a small number of such positions, e.g., one to five. There can be a separate NIRMP match number for those five-year combined programs, requiring a commitment from the graduating medical student for the full five years.

A prospective anesthesiologist’s lifelong record with the ABA is opened at the moment when the residency program enrolls them with the ABA. This occurs either at the beginning of the CB year for a categorical program or at the beginning of the CA-1 year for an advanced anesthesiology position. Thereafter, the residency program submits a clinical competency report to the ABA for each resident every six months throughout the individual’s entire training period. The ABA requires that each training program have a Clinical Competency Committee (CCC), composed of a number of faculty experienced in residency education, chaired by a faculty member who is neither the residency program director nor the department chair.