

Title: Pediatric Anesthesia at Children's Hospital, Boston

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ABSTRACT BODY:

Institution: CHILDREN'S HOSPITAL, BOSTON

Academic Affiliation: Harvard Medical School, Harvard University

Location: Boston, MA USA

Demographics: Children's Hospital Boston (CHB) is a 347 bed, free standing, tertiary care, pediatric hospital. Over 22,000 surgical procedures are performed per year. Patients come from local, national and international patient referral networks. CHB offers a full spectrum of pediatric health care services and programs for all ages of children. An advanced fetal care center (AFCC) offers interventions during pregnancy as early as 15 weeks gestational age. Also, there are patients that continue to be seen at CHB into adulthood as their congenital anomalies are less familiar to adult practice physicians and institutions. A full range of operative procedures, interventions and therapies inclusive of all the surgical disciplines are offered at CHB, including all solid organ transplants, major congenital heart surgeries, ECMO standby, neonatal surgeries as well as outpatient therapies and diagnostic studies. Specialized Intensive Care Units offer 29 medical/surgical, 24 cardiac beds, and 24 neonatal beds for further medical support. Anesthetizing locations and environments vary. There are 25 general operating rooms, one of which is equipped with an MRI scanner. Off site locations include 2 MRI locations, 2 CT locations, nuclear medicine, 2 interventional radiology suites, 2 endoscopy suites, and procedure rooms at adjacent facilities in hematology/oncology, radiation therapy, and neonatal intensive care departments. There are also 2 freestanding outpatient centers in the greater Boston metropolitan area that add another 6-10 anesthetic locations each day. The CHB anesthesia department staffs all areas, except the neonatal ICU, and several of the department staff have concurrent appointments and credentialing in areas of general pediatric anesthesia, pediatric cardiac anesthesia, critical care medicine, and pain medicine.

Department of Anesthesia History: CHB as a hospital opened its doors to patients in 1869. The *Department of Anesthesia, Critical Care, Pain Medicine and Perioperative Care* at CHB first originated in the late 1940s and saw Dr. Robert Smith elected as the founding chair of the department and the first chair of pediatric anesthesia worldwide. Dr. Smith was succeeded by Dr. Milton Alper, who held the position from 1980 to 1991. The current chair, Dr. Paul Hickey has been in the position since 1992. The critical care division grew out of the anesthesia department when, in 1968 Dean Crocker organized a respiratory therapy service as an adjunct to emergency resuscitation and provide long-term ventilation. By 1974 clinical supporting administration were in place for centralized care of critically ill patients and a medical intensive care unit was in physical existence by 1979. The division of pain medicine also grew from the anesthesia department here at CHB. It was the first and remains the largest pediatric pain service in the country. Started by Drs. Berde and Sethna, its formal organization was in place in early 1986. The current acute and chronic arms of the pain service oversee inpatient, outpatient, acute and chronic pain problems. The service provides a range of therapeutic modalities and treatments from PCA/NCA's to invasive regional blockades. The department staffing needs have increased dramatically in the past 10 years. Today the department has grown to include over 70 fulltime faculty.

Pediatric Anesthesia Training: CHB anesthesia has always had residents and trainees involved in patient care. Currently over 120 different residents from anesthesia training programs spend 1 to 3 months at CHB to gain experience, knowledge and training in pediatric anesthesia. In addition, trainees from other training programs such as emergency medicine and critical care rotate through the main OR area to hone skills in airway management. A core competency for anesthesia residents is addressed with teaching during cases in the OR, clinical experience and a didactic program of daily lectures. Since 1980 CHB has also offered fellowship level training in the subspecialty of pediatric anesthesiology. CHB was one of the first sites to be so accredited when such a designation became available in 1997 and has remained so with the most recent renewal granted until 2012. Sixteen fellows per year are trained in the general pediatric anesthesia 12 month program with exposure to cardiac, pain, critical care, perioperative clinic and general OR anesthesia. Additional fellowships offered include a 6-12 month fellowship in pediatric cardiac anesthesia, and a 3-year fellowship in critical care medicine. For detailed information about these programs, see the online site <http://www.childrenshospital.org/clinicalservices/Site1918/mainpageS1918P6.html>. An extensive didactic program as well as clinical exposure rounds out the fellowship training. Within the department continuing education didactics are widely supported and attended. Per annum, >500 lectures, >70 conferences/seminars, and >50 "morbidity and mortality" conferences are available for ongoing education. PALS certification is mandated and supported by the department for its members and likewise made available for participation in the course.