

C.S. Mott Children's Hospital, The Michigan Experience

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The C.S. Mott Children's Hospital was built in 1969. At that time there were four operating rooms staffed by three pediatric anesthesiologists, three nurse anesthetists and several residents rotating from the main hospital. Since that time the section of pediatric anesthesiology has grown in both its size and number of anesthetizing locations. Currently the Mott operating suite comprises of nine operating rooms (O.R.s) including two cardiac O.R.s. Additionally, there are three procedure rooms and an MRI suite within or adjoining the Mott surgical suite. Children are also anesthetized at up to five different locations outside the O.R. suite throughout the institution on a daily basis. The section of pediatric anesthesiology provides perioperative care to children of all ages and sizes undergoing a variety of surgical and diagnostic procedures ranging from simple to complex.

Demographics: This year over 14,000 children will be anesthetized by members of the section of pediatric anesthesiology. Over 600 pediatric cardiac open heart surgeries are performed each year. Other surgical services include pediatric neurosurgery, plastic surgery, otorhinolaryngology, orthopedic surgery, urology, ophthalmology, fetal surgery, neonatal surgery, transplant, and multiple other surgical specialties. Several diagnostic procedures on children such as endoscopy, bronchoscopies and bone marrow biopsies are also performed in the sedation suite within the operating room. Children are also anesthetized by members of the section in the MRI suite located within the operating room suite as well as at off site locations including the pediatric cardiac catheterization laboratory, interventional radiology, nuclear medicine, radiation therapy and pediatric radiology sections. Additionally, a dedicated pediatric pain service provides consultation for children with acute and chronic pain throughout the institution.

Staff Anesthesiologists: Paul Reynolds has directed the section of pediatric anesthesiology since 1992. Shobha Malviya is the director of clinical research as well as pain and sedation for the section. She is assisted by Amy Kostrzewa co-director of the pediatric pain service and Audrey Mitchell, co-director of the pediatric sedation service. Lori Riegger is the director of pediatric cardiac anesthesiology. Other members of the pediatric cardiac anesthesiology team are Paul Reynolds, Shobha Malviya, Wenyu Bai, Devi Chiravuri, Audrey Mitchell, Bridge Pearce and Joe Yap. The director of education is Sarah Walton, and the director of liver transplant and intensive care unit is Dr. Ian Lewis. Members of the general call team include Wilson Chimbira, Tracey Danloff, Virginia Gauger, Ruchika Gupta, Amy Kostrzewa, Joe Scattoloni, Rich Han, Kathleen Gibbons, and Abraham VanderSpek. In addition to the 20 fellowship trained pediatric anesthesiology faculty, there are 20 nurse anesthetists who have dedicated their practice to pediatric anesthesia.

Training in Pediatric Anesthesiology: A one year pediatric anesthesiology fellowship was approved by the ACGME for up to six fellows in 1998. In the current year, ACGME has approved 1 additional fellowship position. Currently 7 pediatric anesthesiology fellows are enrolled for the upcoming year. The fellows receive 12 months of extensive training in all aspects of pediatric anesthesiology including perioperative management, pain management, intensive care and research. All core residents from the department of anesthesiology at the University of Michigan rotate through the section of pediatric anesthesiology.

Research: The research efforts of the pediatric section are led by Shobha Malviya. Dr. Alan Tait who leads the clinical research for the entire department is also an integral member of the research faculty in the section. In addition to the faculty, the research team comprises of a senior research associate Terri Voepel-Lewis, a research nurse Constance Burke and several research assistants. Virtually all the faculty members are actively involved in clinical research. The recent research activities and interest in the section include pediatric pain assessment, obesity in children, pain in the cognitively impaired, sedation by non-anesthesiologists, use of aprotinin in pediatric cardiac and non-cardiac surgery, regional anesthesia for spine surgery, assessment of sedation depth, preoperative upper respiratory infection, ethics of informed consent, and emergence agitation.

