

RRUMC PEDIATRIC ANESTHESIOLOGY GOALS AND OBJECTIVES

GOALS	EDUCATIONAL OBJECTIVES	CLINICAL RESPONSIBILITIES / ACTIVITIES	EVALUATIONS
<p>Patient Care: To provide the resident with advanced clinical experience in a variety of pediatric cases, and in particular, the more challenging cases, that is compassionate, appropriate, and effective.</p> <p>The CA-3 resident will be expected to have a firm foundation in the principles and practices of basic pediatric anesthesiology as outlined in the goals and objectives for the CA-1 and CA-2 resident. The CA-3 rotation will fortify and expand upon the knowledge base and technical skills acquired in the earlier years. At the end of this rotation, the resident is expected to function as a consultant anesthesiologist in the evaluation and care of the pediatric patient during the entire peri-operative period. This will be demonstrated by the resident's ability to independently manage neonatal surgical emergencies, pediatric trauma cases, and other complex surgical cases. Residents should also be familiar with pediatric postoperative pain management techniques such as continuous caudals and patient controlled analgesia.</p>	<p>CA-3 residents will be able to explain the medical and surgical evaluation, design and carry out an efficient practical anesthetic plan for a pediatric patient with one of the following diseases:</p> <ol style="list-style-type: none"> 1. Diaphragmatic hernia 2. Omphalocele 3. Gastroschisis 4. Trachea-esophageal fistula 5. Congenital heart disease - TOF, TGA, HPLH 6. Cranio-facial anomalies, including cleft lip and palate, Aperts, Crouzon's Disease, and Goldenhar's Syndrome 7. Foreign body aspiration 8. Necrotizing enterocolitis 9. Renal, liver, and cardiac transplantation 10. Cystic fibrosis 11. Hirschsprung's disease 12. Anterior mediastinal mass 13. Complex regional pain syndrome, Type I and II 	<ol style="list-style-type: none"> 1. Cases will represent all surgical subspecialties, including urology, orthopedics, cardiac, otolaryngology, plastic surgery, ophthalmology, neurosurgery, etc. The patient population will include predominately those from ASA class 2 and greater. 2. CA-3s may select the rotation as an elective. Residents will be scheduled for pager call. 3. A daily phone call is made by the residents to their assigned faculty for the next day to discuss the anesthetic plan for the cases. Any anesthetic or medical issues are researched and discussed. Final plans for patient optimization are also confirmed. 4. Residents may participate in simulation. 	<ol style="list-style-type: none"> 1. Monthly on-line faculty evaluations. 2. 360 evaluations. 3. Quarterly meeting with program director.
<p>Medical Knowledge: To gain advanced knowledge of the anatomical, physiological and pharmacological concepts, principles and practices needed</p>	<ol style="list-style-type: none"> 1. Normal and Abnormal Physical and Psychological Development 2. Comparative Anatomy and Physiology of the: <ol style="list-style-type: none"> a) Airway b) Pulmonary tree c) Thoracic cavity and its components 	<ol style="list-style-type: none"> 1. Preanesthetic evaluations. 2. Individual supervision and instruction in the operating room. 3. Directed independent study. 4. Annually scheduled lectures. 	<ol style="list-style-type: none"> 1. Monthly on-line faculty evaluations. 2. Quarterly meeting with program director.

<p>to become an anesthesia consultant in matters pertaining to the pediatric patient.</p>	<ul style="list-style-type: none"> d) Cardiac system e) Renal system f) Central and peripheral nervous system g) Hematopoietic system <p>3. Pharmacokinetics and Pharmacodynamics (in the pediatric patient) of:</p> <ul style="list-style-type: none"> a) Inhalational anesthetics b) Intravenous anesthetics c) Local anesthetics d) Opioids, barbiturates and benzodiazepines e) Vasoactive agents <p>4. Metabolic and neuroendocrine effects of surgery</p> <p>5. Pathophysiology and therapy of infection and sepsis</p> <p>6. Thermoregulation</p> <p>7. Fluid and electrolyte management</p> <p>8. Pain management</p> <p>9. Technical skills will be gained the following areas:</p> <ul style="list-style-type: none"> a) Airway management of the pediatric airway <ul style="list-style-type: none"> i Bag-mask ventilation ii Laryngoscopy with a variety of blades iii Laryngeal mask insertion iv Fiberoptic intubation b) Regional Anesthesia <ul style="list-style-type: none"> i Caudal, lumbar and thoracic epidural placement ii Peripheral nerve block <p>10. Establishment of vascular access</p> <ul style="list-style-type: none"> a) Intravenous line placement b) Central venous line placement c) Arterial line placement <p>11. Monitoring</p> <ul style="list-style-type: none"> a) Precordial stethoscope use b) EKG c) NIBP monitoring d) Pulse oximetry e) Temperature monitoring f) Neuromuscular blockade monitoring 	<p>5. Simulation curriculum.</p> <p>6. Daily lectures on a one-on-one basis as determined by the cases of the day. Subjects include topics listed under Educational Objectives.</p>	
<p>Practice Based Learning: To be able to investigate and evaluate their own patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.</p>	<ul style="list-style-type: none"> 1. Learn to critically evaluate the pediatric anesthesiology literature and apply scientific evidence to decision making. 2. Demonstrate the ability to utilize information technology, and primary texts to expand their knowledge base. 3. Understand how to assess the impact of one's actions on outcomes. 4. Seek and respond to constructive criticism to improve performance in the six core competencies 	<ul style="list-style-type: none"> 1. Obtain feedback from the supervising faculty. 2. Review and discuss supporting literature with the supervising faculty. 3. Participation in departmental Q/A. 4. Faculty lectures on statistics and critical literature evaluation. 5. Attend resident simulation. 	<ul style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. Self evaluations. 3. Monthly on-line faculty evaluations. 4. Quarterly meeting with program director.

<p>Interpersonal and Communication Skills: To be able to demonstrate communication skills that result in effective information exchange and appropriate interaction with colleagues, surgeons, patients, and ancillary personnel.</p>	<ol style="list-style-type: none"> 1. Understand the importance of effective communication between the pediatric anesthesiologist and the pediatric surgeon, OR nurses, and ICU nurses. 2. Learn techniques to decrease patient and patient family anxiety. 3. Learn effective communication techniques during period of severe stress, anxiety and complex patient care. 	<ol style="list-style-type: none"> 1. Modeling by the anesthesia faculty 2. Interact with patients and their families. 3. Discuss preanesthetic evaluation and plan with the supervising faculty and pertinent members of the health care team. 4. Attend resident simulation. 5. Experience teaching medical students in the operating room. 	<ol style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. 360 evaluations. 3. Monthly on-line faculty evaluations. 4. Feedback medical students. 5. Quarterly meeting with program director.
<p>Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	<ol style="list-style-type: none"> 1. To understand the legal and ethical issues involved in obtain consents for pediatric patients. 2. Demonstrate caring and respectful behaviors when interacting with patients and their families. 3. Maintain sensitivity towards and learn communication techniques with patients and families of different cultural backgrounds who possibly speak little English. 4. Learn how to create and maintain an atmosphere of collegiality and mutual respect with all providers involved in the care of patients. 5. Learn how to discuss and record cases with complications and/or poor outcomes. 6. Adhere to institutional and departmental standards and policies. 7. Demonstrate respect, compassion, integrity and ethical behavior. 8. Demonstrate ability to appropriately take on, share and delegate patient care responsibilities. 9. Demonstrate the ability to effectively balance one's own personal affairs with clinical and educational duties as outlined in this document. 10. Demonstrate a commitment to ongoing professional development. 	<ol style="list-style-type: none"> 1. Modeling by the anesthesia faculty. 2. Attendance at conferences where many of these issues are discussed. 	<ol style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. 360 evaluations. 3. Monthly on-line faculty evaluations. 4. Quarterly meeting with program director.
<p>Systems Based Medicine: To be familiar with the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.</p>	<ol style="list-style-type: none"> 1. Learn the cost of the drugs, monitoring equipment and overall procedures involved in pediatric surgery. 2. Practice cost-effective health care without compromising quality of care. 3. Understand the complex systems that form the foundation for pediatric surgical patients. 4. Learn how to effect improved operating room efficiency safely. 5. Appreciate the complex interactions that go on between pediatricians, pediatric surgeons and anesthesiologist in the overall hospital management of these complex patients. 6. Be able to assist patient's families in dealing with system complexities. 7. Learn how to consult or work as a team member with health care managers or providers to assess, coordinate, and improve health care. 8. Understand how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources. 9. Understand how choices in patient care and other professional practices affect other healthcare professionals, the healthcare organization and the larger society and how these elements of the system affect the practice of pediatric anesthesia. 	<ol style="list-style-type: none"> 1. During their experiences in the, the pediatric wards and surgical ICUs, the trainees will interact with the pediatric, intensive care, surgical and nursing services in a unique environment distinct from their usual operating room practice which will require sensitivity to structured and multidisciplinary, simultaneous patient care. 2. Attend resident simulation. 	<ol style="list-style-type: none"> 1. Daily faculty-resident interaction in the operating room. 2. 360 evaluations. 3. Monthly on-line faculty evaluations. 4. Quarterly meeting with program director.