Revised: 6/2907

Rotation Title: Advanced Pediatric Anesthesia

I. Definition: This rotation is a required one-month CA-3 rotation. It may be taken at a Children's hospital by arrangement.

II. Curriculum: The rotation provides increased clinical experience in pediatric anesthesia with emphasis on more complex cases

III. Performance Assessments:

A. Self Assessment
You (the resident) are to check off each criterion as the material is mastered. Self reflection on your own competencies is critical.

B. Faculty Assessment
Faculty will periodically review your self assessment and discuss their assessments of your competencies. The overall scores on the six competencies will be reported to you at least weekly.

C. Mentor Assessment
Your mentor should meet with you quarterly and review your entire portfolio. The mentor should report areas in which you have deficiencies (for your level of training). This report may be to you and/or to the program director as determined by your mentor.

IV. Competencies Assessed (Performance Criteria):

A. Patient Care: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. Perform an appropriate preanesthetic assessment of the complex pediatric surgical patient, including history, physical exam and laboratory studies.
2. Interact effectively with the child and their parents/guardians.
3. Formulate a detailed anesthetic plan based on the individual patient's medical history and planned surgery
4. Perform competently all regional and general anesthetic techniques.
5. Work together with other members of the health care team, including pediatricians and pediatric nurses, to optimize patient care, while acknowledging the occasional stressful aspects of care of the sick child.

B. Medical Knowledge: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. Knowledge of all items in CA-2 pediatric anesthesia rotation guidelines
2. Applying relevant scientific knowledge and reasoning to the practice of pediatric anesthesiology.
3. Demonstrating a sound knowledge base concerning common and uncommon diseases in children, especially as they relate to surgery and anesthesia.
4. Demonstrating how specific disease states affect the anesthetic management.
5. Keeping abreast of recent developments in pediatric anesthesiology.
6. Malignant hypothermia
7. Muscular dystrophy
8. Pediatric medications

The CA-3 resident on their advanced pediatric rotation shall be responsible for mastering all material listed in Appendix A. These will be assessed by written and oral examinations.

C. Practice-Based Learning and Improvement: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. The investigation and evaluation of their patient care practices
2. Appraising and assimilating scientific evidence
3. Improving their patient care practices by locating and evaluating evidence from scientific and clinical studies related to a pediatric anesthesiology practice
4. Understand preparation for complex cases

D. Interpersonal and Communication Skills: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. Creating a therapeutic and ethically sound relationship with children so they are able to maintain trust in the anesthesiologist
2. Using effective listening skills to elicit appropriate clinical information
3. Working effectively with others in the interdisciplinary health care team

E. Professionalism: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. Demonstrating respect, compassion and integrity with parents and their child
2. Demontrating a responsiveness to the needs to patients and society that supercedes self-interest
3. Demonstrating sensitivity and responsiveness to patient's culture, age, gender and disabilities
4. Demonstrating accountability to patients, colleagues and institution
5. Demonstrating a commitment to excellence and ongoing professional development

F. Systems-Based Practice: During the course of this rotation, the resident is expected to show increasing competency in each of the following …

1. The demonstration of continued awareness of and responsiveness to the health care system and social systems involved in pediatric care
2. Understand the need to operate efficiently when many outpatient cases are grouped together

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Appendix A: Medical Knowledge expected to be mastered during CA-3 Pediatric Anesthesia Rotation(s)

Lecture 57

Anatomy of the Respiratory System

1) Nose
2) Pharynx: Subdivisions; Innervation
3) Larynx
   a) innervation; muscles; blood supply; cartilages
   b) vocal cords, positions with paralysis
   c) differences between infant and adult
4) Trachea
   a) structure and relationships in neck and chest
5) Lungs
   a) divisions and bronchoscopic anatomy
   b) bronchial and pulmonary circulations
   c) microscopic anatomy
6) Muscles of Respiration, Accessory Muscles

Lecture 139

Emergencies in The Newborn

1) Diaphragmatic Hernia
2) Tracheoesophageal fistula
3) Neonatal Lobar Emphysema
4) Pyloric Stenosis
5) Necrotizing Enterocolitis
6) Omphalocele/Gastroschisis
7) Respiratory Distress Syndrome (RDS): Etiology, Management, Ventilation Techniques
8) Myelomeningocele

Lecture 140

Common Pediatric Medical Problems with Anesthetic Implications

1) Upper Respiratory Infections
2) Muscular Dystrophies
3) Developmental Delay
4) Airway Foreign Bodies

Lecture 141

Pediatric Postoperative Analgesia and N/V Prophylaxis

1) Systemic Medications and Routes of Administration, Multimodal Therapy
2) Regional Techiques: Caudal, Epidural, Nerve Blocks
3) Postoperative Nausea and Vomiting: Risk Factors, Prophylaxis, Treatment