

NAME OF ROTATION: Pediatric Surgery @ Pediatric,

Adolescent Surgical Associate, P.C. (PASA)

COURSE DIRECTOR: Dan Kim, MD

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LOCATION: Children's Health Care of Atlanta, Scottish Rite

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TRAINING LEVEL: PGY- 2

LENGTH OF ROTATION: 1 month

COURSE DESCRIPTION:

As early as 1950, the field of pediatric surgery was largely confined to the intervention of surgical conditions noted during the newborn period. The division of a patent ductus arteriosus and correction of intestinal atresia were some of the earliest performed surgical procedures on newborn patients. While readily performed, these procedures were primitive and plagued with high mortality rates and perioperative complications. With the development of a greater understanding and appreciation for newborn anatomy and physiology, the success rate of these procedures was improved and more techniques were introduced to treat commonly encountered pediatric surgical conditions. Conditions such as pyloric stenosis, intussception, and midgut volvuus were recognized and surgical treatment was developed. As surgical procedures improved, perioperative conditions which previously attributed to high morbidity rates decreased. Over the past decade, pediatric surgery has sparked the introduction of an array of techniques designed to treat the pediatric patient and thus have added to the overall health of the pediatric population.

A critical component of a Pediatric Residency program is a comprehensive understanding and appreciation of the etiology of commonly encountered pediatric surgical conditions, methods of diagnoses, indications for surgical intervention, and management of perioperative conditions. The Pediatric Surgery rotation is designed to provide the general pediatric resident with hands on experience in the surgical care of the pediatric patient. An acquisition of these skills assist in the development of a well rounded pediatrician who is better suited to provide optimum pediatric patient care.



GOALS, OBJECTIVES AND CORE COMPETENCIES:

GOAL 1: To provide the resident with a broad overview of the multiple aspects of diagnosis and treatment of the surgical maladies commonly encountered in a general pediatrics practice.

Objective 1.1: Recognize and describe the pathophysiology and management of commonly encountered conditions including but not limited to:

- 1. Acute abdomen
- 2. Aspirated foreign bodies
- 3. Incarcerated hernias
- 4. Soft tissue infections

GOAL 2: Understand basic surgical techniques utilized in the operating room.

Objective 2.1: The resident will become proficient in the various procedures performed during surgery in the pediatric operating room including but not limited to:

- 1. Tissue handling
- 2. Suturing
- 3. Surgical anatomy
- 4. Principles of hernias

GOAL 3: Active participation in surgical hospital rounds.

Objective 3.1: The resident will be directly involved in the decision making process including the necessity for operative intervention during daily surgical rounds.

Objective 3.2: The resident will demonstrate an understanding and appreciation for the diagnosis and management of commonly encountered pediatric surgical conditions including but not limited to the following:

- 1. Hernias
- 2. Hydroceles
- 3. GE reflux
- 4. Soft tissue tumors
- 5. Foreign body aspiration
- 6. Surgical wound care



GOAL 4: Provide effective patient education of the specific disease entity in addition to treatment options, follow up care, and future preventive strategies.

Objective4.1: The resident will be able to discuss the risk factors of the disease with the attending physician and family.

Objective 4.2: Recognize the initial presenting symptoms and educate the family on dangerous signs and acute methods of intervention for specific surgical conditions.

Objective 4.3: The resident will become well versed in the management and identification of resources for additional information and provide effective family counseling.

Objective 4.4: The resident will be able to understand, discuss, and respond empathetically to the various cultural beliefs, societal influences, and medical practices which the surgical care of the pediatric patient.

<u>GOAL 5</u>: Understand how to use history, physical exam, and standard recommended screening procedures to effectively diagnose, manage, and treat the pediatric surgical patient.

Objective 5.1: The resident will be able to review and interpret birth history, interval history, and family medical history and determine factors which could adversely affect the child's surgical outcome and overall health.

Objective 5.2: The resident will be able to obtain and interpret a detailed social history including living conditions, environmental hazards, public assistance status, medical insurance, child – parent interaction, family functioning and supports, and substance abuse history in parents or other family members and refer parents to outside community resources as appropriate.

Objective 5.3: The resident will be able to perform and interpret screening examinations for commonly encountered surgical conditions including but not limited to the following:

- 1. Incarcerated hernias
- 2. Acute appendicitis
- 3. Perforated appendicitis.



GOAL 6: Understand the role of the general pediatrician versus the pediatric surgeon in the assessment and management of commonly encountered pediatric surgical conditions.

Objective 6.1: Define commonly encountered pediatric surgical conditions by pathophysiology and etiology and be able to list symptoms and signs of commonly presenting illnesses.

COMPETENCIES:

Upon completion of the Pediatric surgical rotation, the resident will be well versed in the following:

Pediatric Competencies in Brief: Pediatric Subspecialties.

Pediatric Competencies in Brief (Subspecialty Rotation). Demonstrate high standards of professional competence while working with patients under the care of a subspecialist. [For details see Pediatric Competencies.]

Competency 1: Patient Care. Provide family-centered patient care that is developmentand age-appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

- 1.1: Use a logical and appropriate clinical approach to the care of patients presenting for specialty care, applying principles of evidence-based decision-making and problem-solving.
- 1.2: Describe general indications for subspecialty procedures and interpret results for families.

Competency 2: Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

- 2.1: Acquire, interpret and apply the knowledge appropriate for the generalist regarding the core content of this subspecialty area.
- 2.2: Critically evaluate current medical information and scientific evidence related to this subspecialty area and modify your knowledge base accordingly.



Competency 3: Interpersonal Skills and Communication. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

- 3.1: Provide effective patient education, including reassurance, for a condition(s) common to this subspecialty area.
- 3.2: Communicate effectively with primary care and other physicians, other health professionals, and health-related agencies to create and sustain information exchange and teamwork for patient care.
- 3.3: Maintain accurate, legible, timely and legally appropriate medical records, including referral forms and letters, for subspecialty patients in the outpatient and inpatient setting.

Competency 4: Practice-based Learning and Improvement. Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

- 4.1: Identify standardized guidelines for diagnosis and treatment of conditions common to this subspecialty area and adapt them to the individual needs of specific patients.
- 4.2: Identify personal learning needs related to this subspecialty; systematically organize relevant information resources for future reference; and plan for continuing acquisition of knowledge and skills.

Competency 5: Professionalism. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

- 5.1: Demonstrate personal accountability to the well-being of patients (e.g., following up on lab results, writing comprehensive notes, and seeking answers to patient care questions).
- 5.2: Demonstrate a commitment to carrying out professional responsibilities.
- 5.3: Adhere to ethical and legal principles, and be sensitive to diversity.



Competency 6: Systems-based Practice. Understand how to practice high-quality health care and advocate for patients within the context of the health care system.

- 6.1: Identify key aspects of health care systems as they apply to specialty care, including the referral process, and differentiate between consultation and referral.
- 6.2: Demonstrate sensitivity to the costs of clinical care in this subspecialty setting, and take steps to minimize costs without compromising quality.
- 6.3: Recognize and advocate for families who need assistance to deal with systems complexities, such as the referral process, lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours of service.
- 6.4: Recognize one's limits and those of the system; take steps to avoid medical errors.

Source. Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website. Available online: www.ambpeds.org/egweb. [Accessed 07/21/2009]. Project to develop this website was funded by the Josiah Macy, Jr. Foundation 2002-2005.

PROCEDURES:

Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

- Abscess: I & D of superficial abscesses
- Abscess: aspiration
- Anesthesia/analgesia: conscious sedation, digital blocks, local/topical, pain management
- Burn: management of 1st & 2nd degree, stabilization of major burn
- Central line: use/care
- Chest tube placement
- Foreign body removal (simple): subcutaneous
- Gastric lavage
- Gastric tube placement (OG/NG)
- Gastrostomy tube replacement
- Inguinal hernia: simple reduction



- Sterile technique
- Subungual hematoma: drainage
- Thoracentesis
- Wound care and suturing of lacerations

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SCHEDULE

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM		clinic	clinic	clinic	clinic	clinic	
PM		Lectures	clinic	clinic	clinic	clinic	

The resident will attend their weekly continuity clinic.

DIDACTIC SESSIONS:

Didactic sessions will be arranged by the attending physician. The resident will attend weekly didactic lectures at the residency suite on Monday afternoons as well as Grand Rounds.

EVALUATIONS:

The resident will be evaluated on the six core competencies.

REFERENCES:

Textbooks and reading will be assigned at the discretion of the course director.