Pediatric Radiology: First Year Curriculum

Welcome to pediatric radiology. Ask for a tour by one of the senior residents or staff on your first day to get acquainted with the department. Attending radiologists read next to the resident reading room and are available for questions. The main number for the reading room is (612) 273-4824, and the door code is 168#. Please review the following and try to read ahead. There are few requirements for first year residents, so it’s best to establish good reading habits and take advantage of the time.

**Week 1: NICU and Chest**

**NICU:** Spend time with staff going over am NICU films and spend week going to Mon, Tues, Thurs, and Fri NICU rounds. Resident should become familiar with basic NICU chest radiograph presentations and understand/recognize line and tube malposition.

Review NICU head ultrasounds. By the end of the week the resident should know how to grade germinal matrix hemorrhage and understand the physiology.

**CHEST:** Read morning films and discuss with staff. Emphasis should be on ED and in-house chest radiographs, including the cardiac ICU. Should spend time reviewing patient’s chart/operative reports for cardiac ICU patients.

**Week 1 Reading Assignments:**
Fundamentals of Pediatric Radiology: Chapters 2-4 and the NEC portion of the GI chapter (5).

**Other recommended material:**
Review Support devices in the NICU powerpoint
Review Basic Chest and Abdomen Radiographic findings in the NICU powerpoint
Janet Strife teaching module- Neonatal chest.

**Articles:**
- “Interpretation of Chest Radiographs in Infants with Cough and Fever” Radiology
- “State-of-the-art cranial sonography: Part 1” AJR
- “State-of-the-art cranial sonography: Part 2” AJR
- “Diagnostic and interventional of the pediatric spine” PedRad

**Week 2: GI/Fluoro**
Residents should get comfortable reading abdominal radiographs. Recognize what to look for in pediatric patients (pneumatosis, free air, etc). Should encounter and
read abdominal US, including liver transplant ultrasounds and understand the basics.

First introduction of fluoro: This includes swallow studies, UGI, and colon enemas. Resident should understand how to position patients appropriately and be able to engage and discuss contrast selections.

- GI chapter from Fundamentals
- “Fellow rounds: bilious emesis” PedRad
- Review the fluoroscopy manual

Week 3: GU/Fluoro
Understand how to interpret renal ultrasounds and what to look for. Should review the current hydronephrosis classification scheme. Resident should also become familiar with testicular and ovarian ultrasounds and understand the differences between pre and post pubertal morphology.

- GU section from Fundamentals
- “Fellow rounds: left lower quadrant pain” PedRad

Week 4: MSK
Through the 4 week rotation the resident is encouraged to read MSK radiographs, with a focus on the follow up films. Should understand how to protocol MRI, but reading/comprehension is not required or encouraged.

- Read MSK section on Donnelley.
- “Fellow rounds: child with limp” PedRad
- “Pediatric elbow fractures: a new angle on an old topic” PedRad
- “Pediatric Distal Forearm and Wrist Injury: An Imaging Review” Emergency Radiology