

## **PEDIATRIC RADIOLOGY – RADY CHILDREN’S HOSPITAL**

### **GOALS AND OBJECTIVES – 2<sup>nd</sup> /3<sup>RD</sup>/4<sup>TH</sup> YEAR RESIDENTS**

- I. Knowledge: At the end of the rotation the radiology resident should be able to:
  - A. CHEST
    1. Identify normal from abnormal airways and recognize air trapping on chest radiographs of infants and young children.
    2. Recognize common hiding places of pneumonia in infants and children and recognize common normal pitfalls that are frequently mistaken for pathology.
    3. Identify foreign bodies in the lower airway of children.
    4. Recognize abnormalities associated with congenital heart disease on chest radiographs.
    5. Explain pathophysiology and recognize patterns of the more common congenital heart lesions.
  - B. BONE
    1. Identify common and uncommon fractures in children.
    2. Differentiate accidental from non-accidental trauma.
    3. Recognize and either diagnose or give a reasonable differential diagnosis of primary bone malignant and benign tumors and tumor-like lesions in children.
    4. Identify causes of limping in a child.
    5. Understand and interpret hip ultrasound in the evaluation of hip dysplasia.
    6. Identify septic arthritis and/or osteomyelitis on various imaging modalities.
    7. Establish bone age on the basis of radiographs and understand the different methods.

8. Recognize and measure different types of scoliosis
9. Recognize normal variants commonly mistaken for pathology.

C. GENITOURINARY

1. Identify abnormalities on VCUG's versus normal variants.
2. Have a complete understanding of urinary tract infections in children and the role of various imaging modalities.
3. Recognize congenital abnormalities of the GU tract.
4. Recognize abnormalities on renal ultrasound in children.
5. Recognize abnormalities on radionuclide renal scans.
6. Identify testicular torsion, tumors and anatomic abnormalities by scrotal ultrasound.

D. G.I.

1. Identify and formulate a differentiate diagnosis of neonatal intestinal obstruction in the neonate.
2. Recognize malrotation on an UGI in the neonate, infant and child.
3. Recognize radiographic abnormalities of the child with an acute abdomen.
4. Identify and witness or perform with supervision treatment of intussusception
5. Identify swallowing disorders in children.
6. Formulate a differential diagnosis in the child with GI bleeding.
7. Understand the role of various imaging modalities in the child with an abdominal mass and formulate a differential diagnosis.

E. HEAD, NECK AND SPINE

1. Identify normal vs. abnormal findings on skull and spine radiographs including trauma, infections, neoplasms and congenital anomalies.

2. Recognize abnormalities on skull films and CT in the evaluation of craniosynostosis.
3. Identify common abnormalities on CT of the head and MRI of the brain in neonates, infants and children.
4. To identify normal and abnormal findings on cranial ultrasound.
5. To identify abnormalities on MRI and ultrasound of the spine.

II. Decision Making/Technical Skills: At the end of the rotation the resident should be able to:

1. Make preliminary decisions on image interpretation and consultation.
2. Recognize and obtain assistance in situations, which require immediate input from the staff radiologist.
3. Understand the importance of image quality, technique and radiation doses.
4. Perform fluoroscopic exams on neonates, infants and children; anticipating possible complications.
5. Review pediatric inpatient and outpatient radiographs and dictate results after work has been checked with staff radiologist.
6. Assist the technologist/nurse in preparation of the patient for fluoroscopic examination (i.e. contrast enema, bladder catheterization).
7. Supervise and teach medical students and pediatric residents on elective in radiology.
8. Prepare and present cases at weekly conferences.
9. Make decisions on quality of films, ultrasound exams, etc. prior to discharge of patient on outpatient studies.
10. Recognize limitations of skills and always ensures all work is checked by staff radiologist prior to final dictation.
11. Learn how to become more efficient and budget his or her time to accurately get through a large volume of work.

SUGGESTED STUDY/READING LIST:

1. Children's Hospital San Diego Radiology Teaching File. Using Dr. Senac's file library then random additional cases in TF
2. ACR Pediatric Radiology practice parameters found here:  
<https://www.acr.org/Clinical-Resources/Practice-Parameters-and-Technical-Standards/Practice-Parameters-by-Subspecialty>
3. Pediatric Radiology: The Requisites by Walters, M and Robertson, RL 4<sup>th</sup> edition 2017
4. Diagnostic Imaging: Pediatric Neuroradiology by Barkovich, J. 2<sup>nd</sup> edition 2015

## CONFERENCE SCHEDULE

### MONDAY

Ortho/Rad 730-830

### TUESDAY

Cardiac Surgery 0630-0815

Rad Ops 1200-1330 (1<sup>st</sup> Tuesday)

Rad M/M 1200-1330 (3<sup>rd</sup> Tuesday)

### WEDNESDAY

ER/Rad 1200-1330 (1<sup>st</sup> Wednesday)

Tumor Board 1230-1330 (2<sup>nd</sup> & 4<sup>th</sup> Wednesday)

Neuro Tumor Board 1230-1330 (3<sup>rd</sup> Wednesday)

### THURSDAY

### FRIDAY

Urology/Rad 730-830 (1<sup>st</sup> & 3<sup>rd</sup> Friday)

ICU M/M 730-830 (2<sup>nd</sup> Friday)

Trauma M/M 730-830 (3<sup>rd</sup> Friday)

ENT/Rad 730-830 (4<sup>th</sup> Friday)

UCSD/Peds 1200-1300 (2<sup>nd</sup> Friday)