THREE-MONTH PEDIATRIC RADIOLOGY ROTATION

GOALS, OBJECTIVES AND EVALUATION PROGRAM
CHILDREN’S HOSPITAL
BOSTON, MA

The three-month rotation for diagnostic radiology residents at Children's Hospital has the following goals and objectives:

1. To familiarize residents with the diagnostic imaging of infants and children, and to emphasize that infants are not simply small children, and children are not simply small adults.

2. To develop comfort with and skill in talking to children and their parents.

3. The rotation is heavily weighted toward general diagnostic radiology so that the resident will learn to become familiar with the concepts behind and the imaging findings in infants and children with the most common as well as the most commonly overlooked conditions. These include but are not limited to the following, arranged by organ system and age:

   **Chest and Airway**
   Reactive airway disease; pneumonia (including “round pneumonia”); foreign bodies; cystic fibrosis; congenital cystic adenomatoid malformation; lobar emphysema; and an approach to the lucent and the opaque hemithorax; and airway emergencies.

   **Musculoskeletal**
   Growth plate injuries and the Salter classification; buckle (torus) fractures; normal variants in the growing skeleton that can mimic disease; slipped capital femoral epiphysis; Legg-Perthes disease; scoliosis; signs of inflicted trauma; common fractures (including supracondylar, ankle, and toddler’s).

   **Gastrointestinal**
   Intussusception and its non-operative treatment; malrotation; meconium ileus and other causes of bowel obstruction in the very young (and meconium ileus equivalent in cystic fibrosis); pyloric stenosis; inflammatory bowel disease; gastroesophageal reflux disease; acquired small bowel obstruction in older infants and children.

   **Uroradiology**
   Urinary tract infection/vesicoureteral reflux and management guidelines thereof, including imaging (ultrasonography, voiding cystourethrography, radionuclide cystography, cortical scintigraphy); congenital anomalies presenting as prenatally diagnosed hydronephrosis, including UPJ obstruction, primary megaureter, duplex kidney with ectopic ureterocele or obstructed ectopic ureter, posterior urethral valves; ectopic ureters in girls with wetting; neurogenic dysfunction of the bladder associated with myelomeningocele, for example.

   **Neonatology**
   Hyaline membrane disease; bronchopulmonary dysplasia; meconium aspiration; pulmonary interstitial emphysema; effect of surfactant on radiographic and clinical patterns; ECMO; necrotizing enterocolitis.

   **Neuroradiology**
   Indications for and performance of emergency head CT, usually for trauma with ability to recognize epidural hematoma, subdural hematoma, contusion, etc.; recognition of hydrocephalus and its treatment.
with shunting, including evaluation of ventricular shunts; indications for emergency MRI, cerebral angiography, and myelography; indications for and performance of neck CT, usually for infection.

The residents will also be exposed to an approach to the various imaging modalities as they are used in infants and children, including nuclear medicine, ultrasonography, computed tomography, magnetic resonance imaging, interventional radiology and conventional fluoroscopy.

Residents assigned to Children’s Hospital will be permitted to attend lectures at Children’s Hospital according to their schedule Monday through Friday. The residents will participate in general diagnostic radiology activities under the supervision of the attending staff at Children’s Hospital. The Resident will take part in the on-call schedule for pediatric radiology as assigned. They are evaluated by a formal evaluation process at the end of their assigned Children’s Hospital rotation. These evaluations are based on the trainee’s performance and technical competency and will be reported to their affiliating Program Director.