

Title of Clerkship: **Pediatric Radiology Elective**
Elective Year(s): Fourth Year
Department: Radiology
Type of Elective: Clinical X Non-Clinical/Research _____ Basic Science _____
Clerkship Site: The University of Toledo Medical Center
Course Number: RAD1 710
Blocks Available: Fall and Spring
Number of Students/
Block: 180
Faculty: Haitham Elsamaloty, M.D.

Elective Description/
Requirements: Designed as a two-week supplement to Introduction to Diagnostic Radiology. This course will introduce key aspects of radiology essential for success as a pediatric intern. Students will complete an online module-based curriculum throughout the course of the semester. The modules are available via: <https://www.cchs.net/pediatricradiology/> Through the modules students will obtain an advanced understanding of:

1. Radiation safety as it pertains to the pediatric patient.
2. The most appropriate imaging modalities for evaluating a given differential diagnosis.
3. Radiographic features specific to various pediatric pathologies.

Modules REQUIRED for completion of the course include:

Introduction to the Pediatric Knowledge Techniques:

1. Lines and Catheters,
2. Radiation Safety

Cardiac:

1. Acyanotic Congenital Heart Disease

Chest:

2. Childhood Pneumonia
3. Neonatal Chest

Esophagus and Airway:

1. Gastroesophageal Reflux

GI:

1. Appendicitis
2. Intussusception
3. Malrotation and Midgut Volvulus
4. Hypertrophic Pyloric Stenosis
5. Newborn Jaundice
6. Newborn Low Intestinal Obstruction
7. Pneumoperitoneum

GU:

1. Testicular Torsion
2. Vesicoureteral Reflux
3. Neuroblastoma
4. Ganglioneuroblastoma
5. Ganglioneuroma
6. Posterior Urethral Valves
7. Wilms and Other Renal Tumors

Musculoskeletal:

Child Abuse:

1. Skeletal Trauma
2. Childhood Fractures
3. Legg-Calve-Perthes' Disease

4. Slipped Capital Femoral Epiphysis
5. Developmental Dysplasia of the Hip
6. Septic Arthritis
7. Toxic Synovitis

Neuroradiology:

1. Pediatric Brain Tumors

Spine:

1. The Sacral Dimple
2. TORCH Infections

Additional modules are available for student to complete at their discretion on an optional basis include:

Cardiac:

1. Coarctation of Aorta and Hypoplastic Left Heart
2. Cyanotic Congenital Heart Disease

Chest:

1. Bronchopulmonary Foregut Malformations
2. Mediastinal Masses
3. Pulmonary Edema

Esophagus and Airway:

1. Esophageal Atresia
2. Esophageal Foreign Body

GI:

1. Blunt Abdominal Trauma
2. Congenital Duodenal Obstruction
3. Jejunal and ileal Stenosis/Atresia
4. Omphalocele
5. Gastrochisis & Diaphragmatic Hernia

GU:

1. Duplication of the Collecting System/Ureters
2. Multicystic Dysplastic Kidney
3. Scrotal Neoplasms
4. Ureteral Junction Obstruction

Musculoskeletal:

1. Ewing's Sarcoma
2. Langerhans Cell Histiocytosis
3. Osteogenic Sarcoma
4. Rickets

Neuroradiology:

1. Chiari Malformations

Child Abuse:

1. Cerebral Trauma
2. Childhood Stroke
3. Congenital Anomalies of the Pediatric Face
4. Hydrocephalus
5. Malformations of Cortical Development
6. Newborn Cranial Ultrasound
7. Pediatric Neck Masses
8. The Holoprosencephalies
9. The Orbit

Syndrome:

1. Trisomy 21

Systemic Conditions:

1. Leukemia and Lymphoma
2. Sickle Cell Disease

Length of Clerkship: 2 weeks

Links to Core

Competencies:

K5, K15, K16, S7, S9,
S11, P3, P7

K1-K5, K7, S7-11, P7

K1-K5, S7-11

S6, S7

K2-5, K16, S1, S9, P5

S1, S9-S11, P4, P7

Educational Course Objectives:

1. Defend common pediatric radiology tests, including their accuracy, limitations and risks by utilizing ACR appropriateness criteria for common conditions.
2. Discuss and interpret pediatric clinical cases which provide clinical, radiologic, and pathologic correlations on various disease processes.
3. Incorporate patient specific variable into ordering and interpreting appropriate imaging tests.
4. Identify the different pediatric interventional procedures performed by radiology including their contraindications, risks and benefits.
5. Identify radiation, contrast, and MRI safety concerns to minimize and quantify risk from common pediatric imaging studies.
6. Communicate effectively with patients and clinicians when reporting imaging results or consulting on test appropriateness.

Professionalism:

UTCUM students will meet or exceed the institutional standards for professionalism as stated in the current Education Program Objectives and the current Educational Course Objectives for the Sponsoring Department.

Instructional Methods:

Online modules and Independent Study

Evaluation Methods:

Completion of ALL REQUIRED online modules with documentation certificates provided to the radiology clerkship coordinator two weeks before the end of the semester.

Prerequisites:

Successful completion of Diagnostic Radiology 705, Diagnostic Radiology 760 or Radiology/Pathology 762

Clerkship Director:

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