

EMERGENCY RADIOLOGY

Tampa General Hospital

Rotation Director: Carlos Martinez, M.D.

General Goals: The Emergency Department (ED) rotations, and especially the night float experience, offer the resident the foremost opportunity to exhibit her/his mastery of the core competencies of the training program. The priorities of emergency care differ from that offered in a general clinic or outpatient setting in that timeliness of interpretation is as important as accuracy in this environment. During the ED rotation, therefore, the imaging modality skills acquired in other sections are combined in a unique and clinically relevant manner.

<u>Daily Work</u>: Residents begin the night float Emergency Radiology rotation after completing one year of diagnostic radiology training. Attending physician coverage of the ED is provided from 6:00 a.m. until 11:00 p.m. daily. Attending physicians are available for consultation, if needed, via PACS from 11 p.m. until 6:00 a.m. The department is covered on weekdays by a resident physician from 1:00 p.m. to 11:00 p.m. and by two resident physicians from 10:00 p.m. until 8:00 a.m. One of the night float residents has primary responsibility for teleradiology coverage of the James A. Haley VA Hospital and the Moffitt Cancer Center.

Suggested Reading:

Educational Goals and Objectives:

First and Second Year Radiology Residents

By the end of the first year on-call, the resident should have achieved competence in the following areas:

Patient Care:

- Participate in the real-time integration of clinical and imaging data in the formation of the treatment plan.
- Before the junior resident begins to take overnight call, they must be prepared to develop a patient management plan based upon available information (including radiography, ultrasound, CT, MRI). The assimilation of information from electronic reporting databases is an essential component of this process.

Medical Knowledge:

- By the completion of the first year, residents are expected to demonstrate knowledge of normal anatomy and recognition of abnormal imaging findings in life-threatening or unstable conditions, such as:
 - Cervical spine, pelvic and extremity fractures
 - Pneumothorax
 - Free fluid in the abdomen
 - Signs of active bleeding
 - Acute intracranial hemorrhage and cerebrovascular accident (CVA)
 - Common causes of non-traumatic acute abdominal pain (e.g. appendicitis, diverticulitis)
 - Pulmonary embolism in uncomplicated cases

Interpersonal and Communication Skills:

- The resident must be directly available at all times while assigned to the ED. Absences
 from the reading room should be coordinated with the attending radiologist or other
 resident to the ED.
- All residents rotating through the ED are expected to appropriately communicate and document in the patient record urgent or unexpected radiologic findings.
- The resident is expected communicate discrepancy reports and alterations between preliminary (i.e. resident) and final (i.e. attending) interpretations according to department protocol.
- Produce radiologic reports that are accurate, concise and grammatically correct.
- As residents change shifts, they are asked to identify outstanding issues to the arriving radiology team, in order to provide "continuity" of radiologic care.
- Communicate effectively with all members of the health care team.

Practice-Based Learning and Improvement:

- The resident assigned to the ED is expected to:
 - o Identify, rectify and learn from personal errors
 - Efficiently use electronic and print resources to access information. The
 resident is both asked to and expected to utilize access to on-line informational
 databases, as well as appropriate textbooks to expand their fund-of-knowledge
 in as close to a real-time manner as possible whenever confronted by unfamiliar
 diagnoses or entities

Professionalism:

- The resident assigned to the ED is expected to:
 - o Demonstrate respect for patients and all members of the health care team
 - Respect patient confidentiality
 - Present oneself as a professional in appearance and communication
 - o Demonstrate a responsible work ethic with regard to work assignments
 - Place the interest of the patient first and appropriately consult attending radiologist on call when necessary for assistance

Systems-Based Practice:

• Demonstrate knowledge of how radiologic information is integrated with the other parts of the health care system in the treatment of the patient. The radiologist, as a member

of both the Department of Diagnostic Imaging and the Emergency Department, is in a unique position to help patients and clinicians navigate through the complexities of both areas.

Demonstrate knowledge of trauma imaging protocols

Third Year Residents

In addition to those listed for second year residents, third year radiology residents have the following objectives:

Patient care:

- Integrate clinical history and imaging findings to provide a diagnosis or an appropriate differential diagnosis
- Provide an appropriate management plan for the patient based upon the above.

Medical Knowledge:

- Further refinement of observational abilities and knowledge base with application into an appropriate differential diagnosis of:
 - Bowel disorders (e.g. ischemia vs. infection vs. neoplasm)
 - Focal diseases of solid organs
 - Focal brain lesions
 - Secondary signs of CVA and herniation
 - Diffuse and focal lung diseases
- Knowledge of classification systems for:
 - Solid organ injury
 - Facial fractures
 - Pelvic fractures
 - Cervical spine fractures
- Imaging protocols for trauma

Interpersonal and Communication Skills:

- Teach first year residents and medical students emergency radiology
- Provide consultation on imaging findings to emergency department staff

Practice-based Learning and Improvement:

- Identify, rectify and learn from personal errors
- Efficiently use electronic and print resources to access information. The resident is both asked to and expected to utilize access to on-line informational databases as well as textbooks to expand their fund of knowledge in as close to a real-time manner as possible whenever confronted by unfamiliar diagnoses or entities

Professionalism:

Act as a role model for medical students and junior residents

Systems-Based Practice:

Demonstrate knowledge of cost-effective imaging evaluation in the emergency department

Fourth Year Residents

In addition to those listed for second year residents, third year radiology residents have the following objectives:

Patient Care:

 Demonstrate knowledge of medical and surgical treatment of diseases and how treatment options may guide imaging

Medical Knowledge:

Further refinement of detection abilities in subtle or complex cases

Interpersonal and Communication Skills:

• Function independently as a consultant to the emergency department attending staff

Practice-based Learning and Improvement:

- Identify, rectify and learn from personal errors
- Efficiently use electronic and print resources to access information. The resident is both asked to and expected to utilize access to on-line informational databases as well as textbooks to expand their fund of knowledge in as close to a real-time manner as possible whenever confronted by unfamiliar diagnoses or entities

Professionalism:

- Demonstrate respect for patients and all members of the health care team
- Respect patient confidentiality
- Present oneself as a professional in appearance and communication.
- Demonstrate a responsible work ethic with regard to work assignments

Systems-Based Practice:

 Demonstrate knowledge of cost-effective imaging evaluation in the emergency department

Mechanism of Evaluation:

The monthly global rotation evaluation form will be completed by the attending radiologists who have had interaction with the resident.