

Body Imaging

James A. Haley VA Hospital

Rotation Director: David Cartaya, M.D.

General Goals and Overview: On this rotation, the resident will learn to interpret CT examinations of the chest, abdomen, and pelvis.

Daily Work:

The rotation in “Body Imaging” begins immediately after completion of morning conference duties and represents a split shift rotation. The early shift continues until 2:00 PM. A second shift continues from 2:00 PM until 8:00 PM daily. During the course of his/her shift, the resident will be responsible for reviewing daily performed CT examinations, including CT Head, Neck, Thorax, Abdomen, and Pelvis examinations. Priority is giving to assuring that all STAT or emergent examinations are completed first. During the course of the workday, the resident should review relevant prior exams on PACS to help with accurate interpretation of the current exam. The resident should review prior discharge dictations, relevant pathology and surgical reports, and pertinent clinical notes from the electronic medical records. The resident should review the examinations and form their own impressions. Residents will provide an initial preliminary report on all cases, and may be directed to pre-dictate cases for attending review. Any unexpected or emergent findings should be communicated to the referring physician upon discovery in accordance with facility policy.

Each case reviewed by a resident will be staffed by board certified or board eligible attending radiologist. Attending radiologists are also available for immediate consultation should residents have questions or be unsure of the imaging findings or potential importance.

Before departing at the end of his/her shift, the resident should review and sign all of their reports, making sure their queue is empty on the computer system before leaving work. All studies should be dictated prior to leaving for the day and within 24 hours of the performance of the exam. Residents are expected to help referring physicians interpret studies performed at the James A. Haley VA Hospital.

Suggested Reading:

- Brant WE, Helms CA. *Fundamentals of Diagnostic Radiology*. 3rd Ed. Baltimore: Lippincott Williams & Wilkins, 2007.
- Zagoria R. *Genitourinary Radiology: The Requisites*. 2nd Ed. St. Louis: Mosby, 2004.
- Halpert RD, Feczko PJ. *Gastrointestinal Radiology: The Requisites*. 2nd Ed. St Louis: Mosby, 1999.

Educational Goals and Objectives:

First Year Residents:

Patient Care:

- Become familiar with CT protocols
- Be able to manage contrast reactions

Medical Knowledge:

- Describe the basic physics of computerized tomography
- Describe Hounsfield units, window and level settings
- Describe proper CT protocols for specific disease processes
- Describe dynamic vs. equilibrium phase imaging and differentiate between these entities
- Describe normal thoracic parenchymal, mediastinal and vascular anatomy
- Describe normal abdominal and pelvic anatomy
- Describe normal musculoskeletal anatomy
- State indications for aortic dissection CT and the protocol to be followed with this examination
- Describe the differences between conventional axial CT and helical CT

Interpersonal and Communication Skills:

- Appropriately obtain informed consent
- Appropriately communicate and document in the patient record urgent or unexpected radiologic findings
- Produce radiologic reports that are accurate, concise and grammatically correct
- Communicate effectively with all members of the health care team

Practice-based Learning and Improvement:

- Identify, rectify and learn from personal errors
- Incorporate feedback into improved performance
- Efficiently use electronic and print resources to access information

Professionalism:

- Demonstrate respect for patients and all members of the health care team
- Serve as a role model for medical students
- 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 how radiologic information is integrated with the other parts of the health care system in the treatment of the patient
- Demonstrate knowledge of ACR standards and appropriateness criteria
- Demonstrate knowledge of cost-effective imaging practices

Second and Third Year Residents:

Patient Care:

- Develop a management plan based upon CT findings and clinical information.
- Demonstrate proper technique in planning and performing CT procedures
- Know the appropriate indications for CT examinations and alternatives depending on the suspected diagnosis.
- Appropriately protocol CT cases based upon the indication for the examination
- Minimize adverse reactions to iodinated contrast through appropriate patient selection and medication.

Medical Knowledge:

- Respond logically and with competence as a CT Radiology consultant.
- Describe volume, doses and administration rates of contrast for CT examinations.
- Provide a differential diagnosis for thoracic, abdominal, musculoskeletal, and vascular pathology
- Orient and supervise the proper imaging investigation of a patient or of a specific disease.

Interpersonal and Communication Skills:

- Appropriately communicate and document in the patient record urgent or unexpected radiologic findings
- Produce radiologic reports that are accurate, concise and grammatically correct
- Effectively teach junior residents and/or medical students
- Communicate effectively with all members of the health care team

Practice-based Learning and Improvement:

- Identify, rectify and learn from personal errors
- Incorporate feedback into improved performance
- Efficiently use electronic and print resources to access information

Professionalism:

- Demonstrate respect for patients and all members of the health care team
- Serve as a role model for junior residents and medical students
- 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 how radiologic information is integrated with the other parts of the health care system in the treatment of the patient
- Demonstrate knowledge of ACR practice guidelines for CT examinations
- Demonstrate knowledge of cost-effective imaging practices
- Understand treatment implicated by findings on CT (e.g. what is the next treatment that should occur based on the CT findings).

Evaluation:

These are the evaluation mechanisms used to evaluate the resident and determine that the program goals and objectives are met.

Evaluation Forms:

- Monthly rotation global evaluation form by faculty

Exams:

- ACR in-service exam
- Mock Oral Board exam

The residents will also be evaluated on:

- Attendance during CT rotation.
- Efficiency during CT rotation.
- Knowledge of CT protocols.
- Knowledge of CT anatomy, physiology and pathology.
- Knowledge of proper prescription of CT examinations.
- Ability to provide a reasonable differential diagnosis for a CT imaging finding and suggest the next most appropriate step in the work-up of the patient.
- Efficiency in dictating studies.
- Quality, content and completeness of dictations.
- Interactions with referring physicians.
- Affability with coworkers, CT technologists, administrative assistants, nursing staff and radiology support staff.