

## Rotation 3, Third or Fourth year

### MSK/Tele Rotation

#### Goals

After completing the third four-week rotation in musculoskeletal radiology, the resident will be able to:

- Demonstrate learning of knowledge-based objectives and mastery of technical objectives for the third rotation.
- Continue to refine skills developed during the first two rotations.
- Effectively use information technology to address clinical problems.
- Participate in the education of junior residents and medical students.
- Attend and present cases at the Tuesday 7am conference.
- Attend all MSK conferences unless committed to a Resident conference.
- Become a more independent provider of musculoskeletal radiologic interpretive services.
- Manage clinical and technical questions from technical and support staff.

<p><b>Patient Care.</b> Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p>	<p>Demonstrate the ability to teach a junior colleague how to protocol examinations and plan procedures.</p> <p>Demonstrate the ability to assess and prioritize requests for add-on procedures.</p> <p>Demonstrate the ability to answer common procedural and policy questions from technologists and support staff.</p>
<p><b>Medical Knowledge.</b> Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavioral sciences, as well as the application of this knowledge to patient care.</p>	<p>Discuss current literature as it pertains to the radiologic evaluation of sports injuries, neoplasm, infection and arthropathies. Critique newly published articles and proposed protocol changes for CT and MR.</p> <p>Recognize and diagnose all pathology seen on radiographs.</p> <p>Identify abnormal MR findings. Competency in interpretation of ankle, hip and wrist MR. Demonstrate learning of common pathology of the hip and ankle on MRI.</p>

	<p>Demonstrate learning of anatomy and common injuries/pathology of the elbow and wrist on MRI</p> <p>Run the musculoskeletal section efficiently in the event the attending is otherwise occupied.</p> <p>Residents should be able to function on a level adequate to pass their ABR core exam.</p> <p>All major texts and the syllabi should be read by now and their ability to interpret films should reflect their knowledge.</p> <p>Areas of weakness are to be determined by the attending and followed up by reading assignments as well as short talks to the group of residents at the viewbox.</p> <p>Recognize radiologic findings and describe pathophysiology of endocrine disease including hyperparathyroidism, renal osteodystrophy, osteomalacia/rickets, hypophosphatasia, hypophosphatemia.</p> <p>Recognize radiologic findings of hematopoietic and storage diseases including sickle cell anemia, thalassemia, mastocytosis, and Gaucher's disease.</p> <p>Demonstrate systematic approach to relatively common dysplasias and congenital conditions such as achondroplasia, osteogenesis imperfecta, osteopetrosis.</p>
<p><b>Practice-based Learning and Improvement.</b> Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.</p>	<p>Demonstrate the ability to locate, appraise and assimilate evidence from scientific studies related to the performance and interpretation of musculoskeletal imaging. Reflect on how they can perform tasks with efficiency and accuracy in a quality driven environment.</p>
<p><b>Interpersonal and Communication Skills.</b> Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.</p>	<p>Demonstrate the ability to teach a junior colleague how to protocol examinations and plan procedures.</p> <p>Demonstrate the ability to answer common procedural and policy questions from technologists and support staff.</p>

<p><b>Professionalism.</b> Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.</p>	<p>Demonstrate an ability to counsel a patient and obtain informed consent before performing a procedure, including a description of the procedure, risks, benefits, and alternatives; and solicit and respond to patient questions without discrimination based on religious, ethnic, sexual, economic, or educational differences.</p> <p>Conduct of residents should reflect confidence in their ability, and a pleasant on- going relationship with clinicians.</p> <p>Attendance at all didactic lectures, and timely arrival each day on the rotation is expected.</p>
<p><b>Systems-based Practice.</b> Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.</p>	<p>Residents must recognize a diagnostic cross-sectional imaging study, versus a non-diagnostic one. Ability to critique radiography and imaging studies should be present. Knowledge on how to improve the study should be gained in final year.</p> <p>Communicate CT or MR scan problems to the technologist whilst the scan is being done and suggest imaging changes to optimize the scans. Be able to instruct the technologist on proper scan orientation. Provide effective and timely feedback and education to CT and MRI technologists regarding quality of examinations.</p>

**Reading list:** "Musculoskeletal MRI" by P. Kaplan et al

## References

1. Accreditation Council for Graduate Medical Education. Competencies Definitions and Practice Performance Measurements for Diagnostic Radiology. Available online at [http://www.acgme.org/acWebsite/RRC\\_420/420\\_compDefsPerfMeas.pdf](http://www.acgme.org/acWebsite/RRC_420/420_compDefsPerfMeas.pdf).
2. Accreditation Council for Graduate Medical Education. Program Requirements for Graduate Medical Education in Diagnostic Radiology. Available online at [http://www.acgme.org/acWebsite/downloads/RRC\\_progReq/420pr701\\_u705.pdf](http://www.acgme.org/acWebsite/downloads/RRC_progReq/420pr701_u705.pdf).
3. Collins J, Abbott GF, Holbert JM, et al. Revised Curriculum on Cardiothoracic Radiology for Diagnostic Radiology Residency With Goals and Objectives Related to General Competencies. Acad Radiol 2005; 12:210-223.
4. American College of Radiology. ACR Practice Guideline for Communication of Diagnostic Imaging Findings. Available online at [http://www.acr.org/s\\_acr/bin.asp?CID=541&DID=12196&DOC=FILE.PDF](http://www.acr.org/s_acr/bin.asp?CID=541&DID=12196&DOC=FILE.PDF).
5. American College of Radiology. ACR Appropriateness Criteria: Expert Panel on Musculoskeletal Imaging. Available online at [http://www.acr.org/s\\_acr/sec.asp?CID=1206&DID=15047](http://www.acr.org/s_acr/sec.asp?CID=1206&DID=15047).

6. American College of Radiology. ACR Practice Guidelines and Technical Standards. Available online at [http://www.acr.org/s\\_acr/bin.asp?CID=1848&DID=14800&DOC=FILE.PDF](http://www.acr.org/s_acr/bin.asp?CID=1848&DID=14800&DOC=FILE.PDF).