

**University of Florida College of Medicine - Jacksonville**  
**Rheumatology Fellowship Program**  
**Radiology Rotation**

Mix of diseases: Patients present with a variety of musculoskeletal and rheumatologic problems, including rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, systemic lupus erythematosus, enthesitis, Baker's cyst, carpal tunnel syndrome, tenosynovitis, trigger finger, evaluation and management of degenerative knee problems, evaluation and management of degenerative hip problems, evaluation and management of common elbow, ankle, knee and shoulder injuries.

Patient Characteristics: the patient population is diverse, male and female, of all ages from adolescent to geriatric, representing most ethnic and racial backgrounds, from all social and economic statuses.

Types of clinical encounters: Fellows will review x-rays, bone scans and MRIs in the radiology department.

### **Goals**

The goal of radiology elective rotation is to provide the opportunity to the rheumatology fellows to understand the relative strengths, weaknesses and indications for conventional radiography, CT, MRI, US, and Bone Scan imaging modalities. Fellows will develop an understanding of the basic steps of reading a plain film of the musculoskeletal system.

### **Objectives**

#### **Patient care**

By the end of the rotation the fellow is expected to:

##### **PGY 4**

- Name indications and pros and cons of various radiographic methods used to image the musculoskeletal system.
- Recognize normal anatomy of the musculoskeletal system in x rays and MRIs.

##### **PGY 5**

- Recognize pathology of the musculoskeletal system in x rays and MRIs associated with patients' symptoms.
- Review musculoskeletal radiographs of patients seen in clinic or hospital services and correlate findings with clinical history/exam.

#### **Medical Knowledge**

By the end of the rotation the fellow is expected to:

##### **PGY 4**

- Demonstrate a systematic approach to plain radiograph assessment of the hand, shoulder, neck, back, knee, SI joints, hip, ankle and foot.
- List indications and basic technique for special procedures in musculoskeletal radiology.
- Recognize bone and soft tissue changes associated with inflammatory versus mechanical arthritis.

##### **PGY 5**

- Recognize common traumatic bone lesions.

- Recognize key features of RA, the Spondyloarhtropathies, and microcrystalline arthritis.
- Recognize benign versus malignant-appearing bone lesions.

### **Practice-Based Learning and Improvement**

By the completion of this rotation, the fellow will be able to:

#### **PGY 4**

- Effectively use technology to manage information for patient care and self-improvement related to radiographic imaging in rheumatologic problems.
- Review the outcomes of patient care in order to reflect on the approach taken in the delivery of care.

#### **PGY 5**

- Utilize established practice guidelines for individual diseases to devise care strategies.
- Identify limitations of one's medical knowledge in evaluation and management of patients and use medical literature to address these gaps in medical knowledge.

### **Interpersonal and Communication Skills**

By the completion of this rotation, the fellow will be able to:

#### **PGY 4**

- Communicate in a sensitive and effective manner with patients and families from diverse ethnic and socioeconomic backgrounds, the necessity for a diagnostic x ray or MRI
- Ensure patients' questions have been answered regarding potential discomforts during MRI or potential complications following an MRI.

#### **PGY 5**

- Work effectively and cooperate with the medical assistant who will be helping with the procedure.
- Communicate effectively with members of the health care team the results of the radiologic evaluation.
- Incorporate patient preferences in diagnostic evaluation and management.
- Maintain accurate medical records.

### **Professionalism**

By the completion of this rotation, the fellow will be able to:

#### **PGY4 and PGY 5**

- Show respect for patient's opinions regarding radiologic examinations.
- Demonstrate accountability/ responsibility by following up the radiologic examination.
- Demonstrate a commitment to ethical principles by maintaining confidentiality of patient information and appropriately obtaining informed consent.
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
- Treat team members, primary care-givers and patients with respect and empathy.
- Practice and adhere to the medical staff code of conduct.

### **Systems-based practice**

By the completion of this rotation, the fellow will be able to:

#### **PGY 4**

- Recognize the importance of the role of support systems in the health of patients with musculoskeletal disease, including physical therapy, occupational therapy, home health workers, and home medical equipment vendors.
- Discuss the role of the orthopedic consultant.

#### **PGY 5**

- Practice cost effective medicine by using radiology imaging when indicated.
- Identify barriers to health for individual patients, such as social/economic/ or cultural factors.

#### **Methods of achieving objectives**

- Direct patient care under the supervising attending
- Self-study using any one of several recommended basic textbooks of clinical Rheumatology (Arthritis Black and White) and per radiology attendings
- Select handouts and journal articles on pertinent topics
- Core conference series
- Electronic databases and computerized resources (UF databases, Up To Date)

#### **Assessment tools**

- Attending will monitor fellow's interaction with the primary service and other health care team members while serving as a consultant.
- Attending will critique fellow's assessment and plan.
- Attending will monitor fellow's self-directed learning.
- Attending will determine whether fellow has met the objectives detailed above.
- Rheumatology MKSAP questions
- Faculty -based quizzes
- ACR questions

#### **Evaluation process**

- Goals and Objectives will be reviewed with the fellow at the beginning of each rotation.
- Verbal feedback throughout and at the completion of the rotation from the attending.
- Evaluation form completed by the attending and reviewed with the fellow.
- Evaluation submitted to the Administrative Office for review by the PD.