

University of Florida College of Medicine - Jacksonville
Rheumatology Fellowship Program
Musculoskeletal Ultrasound Clinic

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: patient encounters will occur in the outpatient clinic as initial consultations or ongoing care of patients with musculoskeletal disorders.

Procedures:

- Ultrasound guided intra-articular aspirations and injections
- Ultrasound guided tendon injections

Goals

The goal of the musculoskeletal ultrasound clinic is to provide a structured training experience through which the fellow will be able to perform accurate musculoskeletal ultrasound (MSU), interpret the results of MSU and perform MSU-assisted joint aspiration and injection. The first 12 months of training the fellow will be expected to know the musculoskeletal anatomy and normal ultrasound scans, as well as to perform injections in large joints (e.g. knee). By the end of the following 12 months the fellow should be able to recognize pathology on ultrasound scanning and perform injections in small joints / tendons.

Objectives

Patient care

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

PGY 5

- Diagnose active synovitis, tenosynovitis, bursitis.
- Diagnose nerve pathologies.
- Diagnose Baker's cyst.
- Diagnose rotator cuff pathologies.
- Diagnose and manage musculoskeletal and joint disorders using MSU.
- Perform MSU-guided joint aspirations.

Medical Knowledge

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

PGY 4

- List the indications, contraindications and approach to MSU.
- Describe sonographic appearances of major tissues
- Describe basic sonoanatomy of the shoulder, elbow, wrist and hand, hip, knee, ankle and foot.
- Discuss the application of MSU to the diagnosis and management of all forms of rheumatic disease and acute and chronic musculoskeletal pain syndromes.

PGY 5

- Recognize the nonarticular rheumatic conditions that may benefit from MSU.
- List indications for MSU-guided arthrocentesis.

Practice-Based Learning and Improvement

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

PGY 4

- Identify practice and learning improvement activities related to MSU.
- Effectively use technology to manage information for patient care and self-improvement related to MSU.

PGY 5

- Review the outcomes of patient care in order to reflect on the approach taken in the delivery of care.
- 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 MSU or an US-guided procedure.
- Ensure patients' questions have been answered regarding potential discomforts during MSU or potential complications following an US-guided procedure.
- Maintain accurate medical records.

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 MSU.
- Incorporate patient preferences in diagnostic evaluation and management.

Professionalism

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

PGY4 and PGY 5

- Show respect for patient's opinion regarding invasive procedures.
- Demonstrate accountability/ responsibility by following up the laboratory results following the procedure.
- Demonstrate a commitment to ethical principles by maintaining confidentiality of patient information and appropriately obtaining informed consent.
- Understand respect and interact effectively with patients of different 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.
- Practice cost effective medicine by using MSU when indicated.

PGY 5

- Practice cost-effective health care, as demonstrated by appropriate referrals for MSU guided procedures guided by current outcome literature.
- 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
- Didactic (teaching) sessions with the attending physician
- Self-study using any one of several recommended basic textbooks of musculoskeletal ultrasound in rheumatology.(Fundamentals of Musculoskeletal Ultrasound, Jon A. Jacobson).
- Select handouts and journal articles on pertinent topics
- Core conference series
- ACR - MSU course

Assessment tools

- Direct observation by the attending
- Global assessment by the attending
- Multisource assessment (patient, peers, clerical staff, nurse, self)
- 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.