Internal Medicine Curriculum
Rheumatology

Contact Person: Dr. Michael Brit

Educational Purpose
A significant proportion (10-20%) of primary care encounters involves patients presenting to their primary care provider with musculoskeletal complaints. The primary goal of the rheumatology rotation will be to become familiar with the most common causes of arthritis and the connective tissue disorders. Differentiating one disease from the other, discussion of their pathophysiological mechanism and planning appropriate treatment strategies will be highlighted. The resident will be taught an algorithmic approach to the patient presenting with joint pain, non-articular rheumatism, back pain and/or abnormal serologic testing. Residents should spend at least one month in the Rheumatology Service. Vacation time greater than one week is discouraged and will be approved on a case-by-case basis by the corresponding Rheumatology attending. Seeing patients with the attending rheumatologist in their office with discussion of diagnoses and clinical management problems will be the primary method utilized.

Principal Teaching Methods
PGY-2 and PGY-3 residents will see patients with the attending rheumatologist at least three half-days a week and see consultations in the hospital with the attending rheumatologist. Residents will review their patient evaluations, diagnostic and management recommendations with the attending rheumatologist who will critique and suggest refinements. Assigned readings are reviewed together to ensure understanding.

Educational Content and Disease Mix
A. General Goals:
   1. To distinguish the major rheumatic syndromes by signs, symptoms and American College of Rheumatology (ACR) criteria.
   2. Training in the history and physical examination of the musculoskeletal system.
   3. Understand the uses, specificity and sensitivity of the variety of serologic and diagnostic tests used in rheumatology, such as RF, ANA, ANCA, ESR, CRP, etc.
B. Clinical Experiences:
   1. Learn the basics of diagnosis and treatment of a wide variety of rheumatic diseases to include metabolic bone disease, rheumatoid arthritis, osteoarthritis, crystalline-induced arthritis, connective tissue diseases, vasculitis, spondyloarthropathies, and soft-tissue rheumatism.
C. Specific Goals:
   1. Discuss the differential diagnosis of polyarthritis, pauci-articular arthritis, and monoarthritis.
   2. Distinguish between articular (arthritis) and non-articular (bursitis/tendonitis) pain.
   3. Distinguish between inflammatory and non-inflammatory arthritis.
   4. Distinguish between inflammatory (sacroiliitis/spondylitis) and non-inflammatory (DDD, mechanical) back pain.
   5. Diagnosis and treatment of spondyloarthropathy.
   6. Diagnosis and treatment of crystalline arthritis.
   7. Diagnosis and treatment of fibromyalgia.
   8. Diagnosis and treatment of septic arthritis.
   9. Diagnosis and treatment of vasculitis.
   10. Diagnosis and treatment of osteoporosis.
   11. Diagnosis and treatment of rheumatoid arthritis.
   12. Diagnosis and treatment of inflammatory muscle disease.
   13. Diagnosis and treatment of connective tissue diseases, to include SLE, Sjogren’s and scleroderma.
   14. Differential diagnosis, evaluation and treatment of abnormal serologic testing to include abnormal/elevated ESR (erythrocyte sedimentation rate), RF (rheumatoid factor), ANA Antinuclear antibodies, ANCA (anti-neutrophil cytoplasmic antibodies), hypocomplementemia, and specific auto-antibodies such as anti-dsDNA, anti-Smith (Sm), anti-RNP, Sjogren’s antibodies (SS-A and SS-B), etc.
**Patient Characteristics and Types of Clinical Encounters**

Various musculoskeletal and rheumatological disorders are evaluated during this rotation from subtle onset to severe involvement and disability. The majority of patient encounters are outpatient with occasional inpatient consults. Residents are supervised at all times by on-site faculty rheumatologists. The importance of occupational and physical therapists in minimizing disability from arthritis is constantly emphasized.

**Procedures**

House staff will have the opportunity to participate in joint aspiration and injection, soft-tissue injection (bursitis/tendonitis), and trigger point injection. Basics of synovial fluid analysis for diagnosis of inflammatory versus non-inflammatory arthritis, septic versus non-septic arthritis, and crystalline arthritis-gout versus pseudo-gout will be discussed.

**Required Presentations**

None, however, informal presentation of subjects of special interest may be required by the attending rheumatologist.

**Call Responsibility**

None. The attending rheumatologist may assign residents inpatient rheumatology consultations when requested.

**Reading List**

A. Required reading
   1. MKSAP 14 – Rheumatology

B. Supplementary reading and references
   2. Rheumatology Secrets, Up to Date 2nd Edition.
   4. ACR Slide Collection on CD-ROM consisting of over 700 slides covering most fields of rheumatology.
   5. Relevant rheumatology journals, such as Arthritis & Rheumatism, Journal of Rheumatology, Annals of the Rheumatic Diseases, etc

**Pathological Material**

The resident is encouraged to review all biopsied materials with the pathologist. Appropriate selection of the different clinical tests available is demonstrated.

**Evaluation Methods**

The resident will be evaluated primarily by observance of the attending rheumatologist. An end of month evaluation will be completed. The resident will be expected to demonstrate a basic understanding of the musculoskeletal examination of patients presenting with articular disorders.

**To complete the rheumatology rotation, the resident will be required to:**

A. Receive satisfactory end of rotation evaluation by the supervising faculty member.
B. Complete assigned readings.
C. Attend all outpatient clinic activities (excluding scheduled time away, required clinics and emergencies).
D. Complete required case report abstracts and/or posters assigned by the supervising faculty member.
E. Demonstrate appropriate skill in performing the musculoskeletal examination of a patient presenting with articular complaints.
F. Demonstrate understanding of proper selection of serologic studies.
Objectives
The curriculum is designed to address learning objectives of the following Accreditation Council on Graduate Medical Education core competencies. Reference:  [http://www.acgme.org/Outcome](http://www.acgme.org/Outcome)

“Every competency can be taught with every patient.”   B. Joyce, 2006

**PATIENT CARE**
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. Residents are expected to:

- communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- gather essential and accurate information about their patients
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- develop and carry out patient management plans
- counsel and educate patients and their families
- use information technology to support patient care decisions and patient education
- perform competently all medical and invasive procedures considered essential for the area of practice
- provide health care services aimed at preventing health problems or maintaining health
- work with health care professionals, including those from other disciplines, to provide patient-focused care

**MEDICAL KNOWLEDGE**
Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- demonstrate an investigatory and analytic thinking approach to clinical situations
- know and apply the basic and clinically supportive sciences which are appropriate to their discipline

**PRACTICE-BASED LEARNING AND IMPROVEMENT**
Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- analyze practice experience and perform practice-based improvement activities using a systematic methodology
- locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
- obtain and use information about their own population of patients and the larger population from which their patients are drawn
- apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- use information technology to manage information, access on-line medical information; and support their own education
- facilitate the learning of students and other health care professionals

**INTERPERSONAL AND COMMUNICATION SKILLS**
Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families and professional associates. Residents are expected to:

- create and sustain a therapeutic and ethically sound relationship with patients
- use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills
- work effectively with others as a member or leader of a health care team or other professional group
PROFESSIONALISM
Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
- demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities

SYSTEMS-BASED PRACTICE
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:

- understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- practice cost-effective health care and resource allocation that does not compromise quality of care
- advocate for quality patient care and assist patients in dealing with system complexities
- know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
Rheumatology Rotation Resident Check List

Intern/Resident ___________________________ PGY (circle one) 1 2 3

Supervising Faculty ___________________________ Month

Rotation Check List

Review the goals and objectives at the beginning of the rotation

Evaluation and feedback mid month

Evaluation and feedback at the end of rotation

Attended all scheduled clinical sessions

Completed assigned readings to include MKSAP (Medical Knowledge Self-Assessment Program 14- Rheumatology)

Completed required case reports/abstracts/posters

Reviewed and met the core competencies as outlined above. Please give at least one example.

A Patient Care
- Demonstrate appropriate skill in performing the musculoskeletal examination of a patient presenting with articular complaints
- Demonstrate understanding of proper selection of serologic studies
- Documented procedures appropriately

B. Medical Knowledge
- Understand educational content and complete assign readings
- Residents will be able to define and describe various problems related rheumatological disorders

C. Practice Based Learning
- Residents will develop and implement treatment plans by utilizing appropriate information systems and resources to help manage rheumatological disorders

D. Interpersonal and Communication Skills
- Residents will communicate diagnosis, treatment plan and follow up care to selected patients and their families

E. Professionalism
- Residents will recognize the importance of patient preferences when selecting diagnostic and therapeutic options
- Demonstrate ongoing commitment to self directed learning

F. Systems-Based Practice
- Residents will be able to develop, implement and evaluate treatment plans for patients that include determining when to obtain consultations for Rheumatological conditions
- Residents will be able to develop, implement and evaluate treatment plans that are cost effective

Literature search on assigned topics with attending discussions

Intern/Resident Signature ___________________________ Date _________________

Supervising Faculty ___________________________ Date _________________

Revised 5/2008. All items must be completed for rotation credit and checklist returned to the Department of Medicine.