



**ACGME International**

**Advanced Specialty Program Requirements for  
Graduate Medical Education in  
Rheumatology  
(Internal Medicine)**

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# **ACGME International Advanced Specialty Program Requirements for Graduate Medical Education in Rheumatology (Internal Medicine)**

## **I Introduction**

### **I.A. Definition and Scope of Specialty**

The medical specialty of rheumatology focuses on the diagnosis and therapy of conditions and diseases affecting joints, muscles, and bones. It deals mainly with clinical problems involving joints, soft tissues, certain autoimmune diseases, vasculitis, and heritable connective tissue disorders.

### **I.B. Duration of Education**

- I.B.1. The education program in rheumatology must be 24 or 36 months in length.

## **II Institutions**

### **II.A. Sponsoring Institutions**

See International Subspecialty Foundational Requirements, Section I.A.

### **II.B. Participating Sites**

See International Subspecialty Foundational Requirements, Section I.B.

## **III Program Personnel and Resources**

### **III.A. Program Director**

See International Subspecialty Foundational Requirements, Section II.A.

### **III.B. Faculty**

- III.B.1. Faculty members must teach and supervise the fellows in the performance and interpretation of procedures, and this must be documented in each fellow's record, including indications, outcomes, diagnoses, and supervisor(s).

### **III.C. Other Program Personnel**

- III.C.1. Programs should have a working relationship with both a radiologist and an orthopaedic surgeon, including availability for teaching and consultation.

### **III.D. Resources**

- III.D.1. The following laboratory and imaging services must be present at the primary clinical site or at participating site(s):

- III.D.1.a) clinical immunology lab services;
- III.D.1.b) a compensated polarized light microscope;
- III.D.1.c) computed tomography (CT), bone densitometry, magnetic resonance imaging (MRI), musculoskeletal ultrasound, and angiography; and,
- III.D.1.d) ultrasound for both diagnostic and interventional musculoskeletal applications at the bedside and in the ambulatory clinic.
- III.D.2. Fellows must have access to facilities for rehabilitation medicine.
- III.D.3. The program should have access to:
  - III.D.3.a) orthopaedic surgery services for obtaining synovial biopsies and consultations for joint arthroplasty;
  - III.D.3.b) other consultation services for obtaining indicated biopsies of muscle, nerve, skin, and arteries; and,
  - III.D.3.c) access to pathology services for evaluation of muscle, vascular, and synovial biopsy materials.

#### **IV Fellow Appointment**

##### **IV.A. Eligibility Criteria**

- IV.A.1. Prior to appointment in the program, fellows should have completed an ACGME International (ACGME-I)-accredited core specialty program in internal medicine.

##### **IV.B. Number of fellows**

See International Subspecialty Foundational Requirements, Section III.B.

#### **V Specialty-Specific Educational Program**

##### **V.A. Regularly Scheduled Didactic Sessions**

See International Subspecialty Foundational Requirements, Section IV.A.

##### **V.B. Clinical Experiences**

- V.B.1. At least 12 months of education must be devoted to clinical experience.
- V.B.2. Fellows must have experience in the role of a rheumatology consultant in both the inpatient and ambulatory settings.
- V.B.3. Fellows should participate in training using simulation.

- V.B.4. Fellows should have a structured continuity ambulatory clinic experience that exposes them to the breadth and depth of rheumatology.
- V.B.4.a) This experience should include an appropriate distribution of patients of each gender and a diversity of ages.
- V.B.4.b) This experience should average one half-day each week, averaged throughout the educational program.
- V.B.4.c) Each fellow should, on average, be responsible for four to eight patients during each half-day session.
- V.B.4.c).(1) Each fellow should, on average, be responsible for no more than eight to 12 patients during each half-day ambulatory session.
- V.B.4.c).(2) Continuity patients should not be limited to one disease type, but should expose fellows to patients with a broad variety and stage of disease.
- V.B.4.d) The continuing patient care experience should not be interrupted by more than one month, excluding a fellow's vacation.
- V.B.5 The program must include a minimum of two half-days of ambulatory care per week, averaged throughout the educational program, which includes the continuity ambulatory experience.
- V.B.6. Programs with the qualified faculty members and facilities should provide education in pediatric rheumatic diseases.

**V.C. Fellows' Scholarly Activities**

See International Subspecialty Foundational Requirements, Section IV.C.

**V.D. Duty Hour and Work Limitations**

- V.D.6. Direct supervision of procedures performed by each fellow must occur until competence has been acquired and documented by the program director.

**VI ACGME-I Competencies**

**VI.A. Patient Care**

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows must demonstrate proficiency in:

- VI.A.1. the practice of health promotion, disease prevention, diagnosis, care, and treatment of patients of each gender, from adolescence to old age, during health and all stages of illness;

- VI.A.2. treatment of:
- VI.A.2.a) crystal induced synovitis;
  - VI.A.2.b) infection of joints and soft tissues;
  - VI.A.2.c) metabolic diseases of bone;
  - VI.A.2.d) non-articular rheumatic diseases, including fibromyalgia;
  - VI.A.2.e) non-surgical exercise-related (sports) injury;
  - VI.A.2.f) polymyositis;
  - VI.A.2.g) osteoarthritis;
  - VI.A.2.h) osteoporosis;
  - VI.A.2.i) regional musculoskeletal pain syndromes, acute and chronic musculoskeletal pain syndromes, and exercise-related syndromes;
  - VI.A.2.j) rheumatoid arthritis;
  - VI.A.2.k) scleroderma/systemic sclerosis;
  - VI.A.2.l) Sjögren's Syndrome;
  - VI.A.2.m) spondyloarthropathies;
  - VI.A.2.n) systemic diseases with rheumatic manifestations;
  - VI.A.2.o) systemic lupus erythematosus; and,
  - VI.A.2.p) vasculitis.
- VI.A.3. examination and interpretation of synovial fluid under conventional and polarized light microscopy;
- VI.A.4. interpretation of radiographs of normal and diseased joints, bones, periarticular structures, and prosthetic joints;
- VI.A.5. assessment and management of musculoskeletal pain;
- VI.A.6. performance of arthrocentesis of peripheral joints and periarticular/soft tissue injections, including instruction and experience in performing these procedures under ultrasound guidance; and,

VI.A.7. performance and interpretation of diagnostic ultrasonography of painful musculoskeletal structures commonly encountered in a rheumatology clinic, including synovial joints, periarticular soft tissues, tendons, and ligaments.

**VI.B. Medical Knowledge**

Fellows 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. Fellows must demonstrate proficiency in knowledge of:

VI.B.1. the scientific method of problem solving and evidence-based decision making;

VI.B.2. the indications, contraindications, and techniques for, and limitations, complications, and interpretation of results of those diagnostic and therapeutic procedures integral to the discipline, including the appropriate indications for and use of screening tests and procedures;

VI.B.3. the indications for and interpretation of:

VI.B.3.a) arthroscopy;

VI.B.3.b) biopsy specimens, including histochemistry and immunofluorescence of tissues relevant to the diagnosis of rheumatic diseases;

VI.B.3.c) bone densitometry;

VI.B.3.d) CT of lungs and paranasal sinuses for patients with suspected or confirmed rheumatic disorders;

VI.B.3.e) electromyograms and nerve conduction studies for patients with suspected or confirmed rheumatic disorders;

VI.B.3.f) MRI of the central nervous system (brain and spinal cord) for patients with suspected or confirmed rheumatic disorders;

VI.B.3.g) plain radiography, arthrography, ultrasonography, radionuclide scans, CT, and MRI of joints, bones, and periarticular structures;

VI.B.3.h) arteriograms (conventional and MRI/magnetic resonance angiogram (MRA)) for patients with suspected or confirmed vasculitis;

VI.B.3.i) Schirmer's test;

VI.B.3.j) parotid scans and salivary flow studies; and,

- VI.B.3.k) ultrasound scans of normal and painful musculoskeletal structures commonly encountered in a rheumatology clinic, including synovial joints, periarticular soft tissues, tendons, and ligaments.
- VI.B.4. the anatomy, basic immunology, genetic basis, cell biology, and metabolism pertaining to rheumatic diseases, disorders of connective tissue, metabolic disease of bone, osteoporosis, and musculoskeletal pain syndromes;
- VI.B.5. the pathogenesis, epidemiology, clinical expression, treatments, and prognosis of the full range of rheumatic and musculoskeletal diseases;
- VI.B.6. the physical and biologic basis of the range of diagnostic testing in rheumatology, and the clinical test characteristics of these procedures;
- VI.B.7. the pharmacokinetics, metabolism, adverse events, interactions, and relative costs of drug therapies used in the management of rheumatic disorders;
- VI.B.8. the aging influences on musculoskeletal function and responses to prescribed therapies for rheumatic diseases;
- VI.B.9. the essential components of quality experimental design, clinical trial design, data analysis, and interpretation of results, and the importance of adherence to ethical standards of experimentation;
- VI.B.10. the appropriate employment of principles of physical medicine and rehabilitation in the care of patients with rheumatic disorders; and,
- VI.B.11. the indications for surgical and orthopaedic consultation, including indications for arthroscopy and joint replacement/arthroplasty.

**VI.C. Practice-based Learning and Improvement**

Fellows 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.

**VI.D. Interpersonal and Communication Skills**

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

**VI.E. Professionalism**

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

**VI.F. Systems-based Practice**

Fellows 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.