**ACGME International**

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

Revised: 10 May 2024; Effective: 1 July 2025
Reformatted: 1 April 2022
Revised: 12 December 2015, Effective: 1 July 2016
Initial Approval: 2 October 2012

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

## Int. Introduction

*Background and Intent: Programs must achieve and maintain Foundational Accreditation according to the ACGME-I Foundational Requirements prior to receiving Advanced Specialty Accreditation. The Advanced Specialty Requirements noted below complement the ACGME-I Foundational Requirements. For each section, the Advanced Specialty Requirements should be considered together with the Foundational Requirements.*

### Int. I. Definition and Scope of the Specialty

Rheumatology is a subspecialty of internal medicine that focuses on the diagnosis and treatment of medical diseases of the joints, muscles, and connective tissues, and on processes of autoimmunity and inflammation that affect not only the musculoskeleton but the organ systems more broadly.

### Int. II. Duration of Education

Int. II.A. The educational program in rheumatology must be 24 or 36 months in length.

## I. Institution

### I.A. Sponsoring Institution

I.A.1. A fellowship in rheumatology must function as an integral part of an ACGME-I-accredited residency in internal medicine.

### I.B. Participating Sites

See International Foundational Requirements, Section I.B.

## II. Program Personnel and Resources

### II.A. Program Director

See International Foundational Requirements, Section II.A.

### II.B. Faculty

See International Foundational Requirements, Section II.B.

### II.C. Other Program Personnel

II.C.1. Programs should have ~~a~~ meaningful working relationship, including availability for teaching and consultation, with at least one pathologist, one nephrologist, one dermatologist, one radiologist and one orthopaedic surgeon.

## II.D. Resources

II.D.1. The following laboratory and imaging services must be present at the primary clinical site or at participating site(s) offering a required rotation:

II.D.1.a) clinical immunology lab services;

II.D.1.b) a compensated polarized light microscope;

II.D.1.c) computed tomography (CT), bone densitometry, magnetic resonance imaging (MRI), ultrasound, and angiography; and,

II.D.1.d) ultrasound for both diagnostic and interventional musculoskeletal applications at the bedside and in the ambulatory clinic.

II.D.2. Fellows must have access to facilities for rehabilitation medicine.

II.D.3. The program should have access to:

II.D.3.a) pathology services for evaluation of muscle, nervous system, skin, kidney, vascular, and synovial biopsy materials;

II.D.3.b) orthopaedic surgery services for obtaining synovial biopsies and consultations for joint arthroplasty and other surgical treatments;

II.D.3.c) other consultation services for obtaining indicated biopsies of muscle, nervous system tissue, skin, kidneys, and vasculature; and,

# III. Fellow Appointment

## III.A. Eligibility Criteria

III.A.1. Prior to appointment in the program, fellows should have completed an ACGME-I-accredited residency program in internal medicine, or an internal medicine residency program acceptable to the Sponsoring Institution's Graduate Medical Education Committee.

## III.B. Number of Fellows

See International Foundational Requirements, Section III.B.

# IV. Specialty-Specific Educational Program

## IV.A. ACGME-I Competencies

IV.A.1. The program must integrate the following ACGME-I Competencies into the curriculum.

IV.A.1.a) Professionalism

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| IV.A.1.a).(1) | Fellows must demonstrate a commitment to professionalism and an adherence to ethical principles. |
| IV.A.1.b) | Patient Care and Procedural Skills |
| IV.A.1.b).(1) | Fellows must provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows must demonstrate competence in managing the care of patients: |
| IV.A.1.b).(1).(a) | in a variety of health care settings, including inpatient and various ambulatory settings; |
| IV.A.1.b).(1).(b) | using critical thinking and evidence-based tools; |
| IV.A.1.b).(1).(c) | using population-based data; and, |
| IV.A.1.b).(1).(d) | with whom they have limited or no physical contact, through the use of telemedicine. |
| IV.A.1.b).(2). | Fellows must demonstrate competence in the treatment of |
| IV.A.1.b).(2).(a). | autoimmune manifestations of infectious conditions, such as lyme disease, other tick- borne illness, and subacute bacterial endocarditis; |
| IV.A.1.b).(2).(b). | crystal induced synovitis; |
| IV.A.1.b).(2).(c). | infection of joints and soft tissues; |
| IV.A.1.b).(2).(d). | inflammatory myositis (polymyositis, dermatomyositis, necrotizing myositis, and inclusion body myositis), as well as myositis mimics; |
| IV.A.1.b).(2).(e). | metabolic diseases of bone; |
| IV.A.1.b).(2).(f). | monogenic and polygenic autoinflammatory syndromes, including familial Mediterranean fever, familial cold autoinflammatory syndromes, and others; |
| IV.A.1.b).(2).(g). | musculoskeletal pain; |
| IV.A.1.b).(2).(h). | non-articular rheumatic diseases, including fibromyalgia; |
| IV.A.1.b).(2).(i). | non-surgical exercise-related (sports) injury; |
| IV.A.1.b).(2).(j). | osteoarthritis; |
| IV.A.1.b).(2).(k). | osteoporosis; |

IV.A.1.b).(2).(l). pediatric rheumatic diseases;

IV.A.1.b).(2).(m). regional musculoskeletal pain syndromes, acute and chronic musculoskeletal pain syndromes, and exercise-related syndromes;

IV.A.1.b).(2).(n). relapsing polychondritis;

IV.A.1.b).(2).(o). rheumatoid arthritis;

IV.A.1.b).(2).(p). Sjögren's Syndrome;

IV.A.1.b).(2).(q). spondyloarthropathies;

IV.A.1.b).(2).(r). systemic diseases with rheumatic manifestations;

IV.A.1.b).(2).(s). systemic lupus erythematosus;

IV.A.1.b).(2).(t). systemic sclerosis and scleroderma mimics; and,

IV.A.1.b).(2).(u). vasculitis, including primary large, medium, and small vessel vasculitis, vasculitis secondary to other rheumatic diseases, and vasculitis mimics.

IV.A.1.b).(3). Fellows must be able to perform all medical, diagnostic, and surgical procedures considered essential for the area of practice including

IV.A.1.b).(3).(a) performing diagnostic and therapeutic procedures relevant to their specific career path, including;

IV.A.1.b).(3).(a).(i) performance of arthrocentesis of peripheral joints and periarticular/soft tissue injections, including instruction and experience in performing these procedures under ultrasound guidance; and,

IV.A.1.b).(3).(a).(ii) 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.

IV.A.1.b).(3).(b) treating their patient's conditions with practices that are patient-centered, safe, scientifically based, effective, timely and cost-effective; including musculoskeletal pain assessment and management;

IV.A.1. b).(3).(c) using diagnostic and/or imaging studies relevant to the care of the patient, including

IV.A.1.b).(3).(c).(i) examination and interpretation of synovial fluid under conventional and polarized light microscopy; and,

IV.A.1.b).(3).(c).(ii) interpretation of radiographs of normal and diseased joints, bones, periarticular structures, and prosthetic joints.

IV.A.1.c) Medical Knowledge

IV.A.1.c).(1) 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 knowledge of:

IV.A.1.c).(1).(a) the scientific method of problem solving and evidence-based decision-making;

IV.A.1.c).(1).(b) 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, including;

IV.A.1.c).(1).(b).(i) arteriograms (conventional and MRI/ magnetic resonance angiogram (MRA)) for patients with suspected or confirmed vasculitis;

IV.A.1.c).(1).(b).(ii) arthroscopy;

IV.A.1.c).(1).(b).(iii) biopsy specimens, including histochemistry and immunofluorescence of tissues relevant to the diagnosis of rheumatic diseases;

IV.A.1.c).(1).(b).(iv) bone densitometry;

IV.A.1.c).(1).(b).(v) CT of lungs and paranasal sinuses for patients with suspected or confirmed rheumatic disorders;

IV.A.1.c).(1).(b).(vi) electromyograms and nerve conduction studies for patients with suspected or confirmed rheumatic disorders;

IV.A.1.c).(1).(b).(vii) lip biopsy, parotid scans and salivary flow studies

IV.A.1.c).(1).(b).(viii) MRI of the central nervous system (brain and spinal cord) for patients with suspected or confirmed rheumatic disorders;

IV.A.1.c).(1).(b).(ix) plain radiography, arthrography, ultrasonography, radionuclide scans, CT, and MRI of joints, bones, and periarticular structures;

IV.A.1.c).(1).(b).(x) Schirmer's and rose Begal tests; and,

IV.A.1.c).(1).(b).(xi) ultrasound scans of normal and painful musculoskeletal structures commonly encountered in a rheumatology clinic, including synovial joints, periarticular soft tissues, tendons, and ligaments.

IV.A.1.c).(1).(c) aging influences on musculoskeletal function and responses to prescribed therapies for rheumatic diseases;

IV.A.1.c).(1).(d) 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;

IV.A.1.c).(1).(e) appropriate employment of principles of physical medicine and rehabilitation in the care of patients with rheumatic disorders;

IV.A.1.c).(1).(f) 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;

IV.A.1.c).(1).(g) indications for surgical and orthopaedic consultation, including indications for arthroscopy and joint replacement/arthroplasty.

IV.A.1.c).(1).(h) pathogenesis, epidemiology, clinical expression, treatments, and prognosis of the full range of rheumatic and musculoskeletal diseases;

IV.A.1.c).(1).(i) pharmacokinetics, metabolism, adverse events, interactions, and relative costs of drug therapies used in the management of rheumatic disorders; and,

IV.A.1.c).(1).(j) physical and biologic basis of the range of diagnostic testing in rheumatology, and the clinical test characteristics of these procedures.

IV.A.1.c).(1).(k) must demonstrate sufficient knowledge specific to the subspecialty of rheumatology including application of technology appropriate for the

clinical context, including evolving technologies.

IV.A.1.d) Practice-based Learning and Improvement

IV.A.1.d).(1) 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 lifelong learning.

IV.A.1.e) Interpersonal and Communication Skills

IV.A.1.e).(1) Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

IV.A.1.f) Systems-based Practice

IV.A.1.f).(1) Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinates of health, as well as the ability to call effectively on other resources in the system to produce optimal care.

## IV.B. Regularly Scheduled Educational Activities

IV.B.1. The educational program must include didactic instruction based upon the core knowledge content in the subspecialty area.

IV.B.1.a) The program must ensure that fellows have an opportunity to review all knowledge content from conferences that they could not attend.

IV.B.2. Fellows must have a sufficient number of didactic sessions to ensure fellow-fellow and fellow-and-faculty interaction.

## IV.C. Clinical Experiences

IV.C.1. Assignment of rotations must be structured to minimize the frequency of rotational transitions, and rotations must be of sufficient length to provide a quality educational experience, defined by continuity of patient care, ongoing supervision, longitudinal relationships with faculty members, and meaningful assessment and feedback.

IV.C.2. Rotations must be structured to allow fellows to function as a part of an effective interprofessional team that works together toward the shared goals of patient safety and quality improvement.

IV.C.3. Rotations must be structured to minimize conflicting inpatient and outpatient responsibilities.

IV.C.4. At least 12 months of education must be devoted to clinical experience.

IV.C.5. Fellows must have experience in the role of a rheumatology consultant in the inpatient and ambulatory settings.

IV.C.6. The program must provide educational experiences in team-based care that allow fellows to interact with and learn from other health care professionals.

IV.C.7. The educational program must provide fellows with elective experiences relevant to their future practice or to further skill/competence development.

IV.C.8. The program must include a minimum of two half-days of ambulatory care per week, averaged throughout the educational program, including the continuity ambulatory experience.

IV.C.9. Fellows should participate in training using simulation.

IV.C.10. Fellows should have a structured continuity ambulatory clinic experience for the duration of the program that exposes them to the breadth and depth of rheumatology.

IV.C.10.a) This experience should average one half-day each week, averaged throughout the educational program.

IV.C.10. b) The continuing patient care experience should not be interrupted by more than one month, excluding a fellow's vacation.

**IV.C. Scholarly Activity**

IV.D.1. Fellows' Scholarly Activity

IV.D.1.a) While in the program all fellows must engage in at least one of the following scholarly activities: participation in grand rounds, posters, workshops, quality improvement presentations, podium presentations, grant leadership, non-peer-reviewed print/electronic resources, articles or publications, book chapters, textbooks, webinars, service on professional committees, or serving as a journal reviewer, journal editorial board member, or editor.

IV.D.2. Faculty Scholarly Activity

See International Foundational Requirements, Section IV.D.2.

## V. Evaluation

See International Foundational Requirements, Section V.

## VI. The Learning and Working Environment

### VI.A. Principles

See International Foundational Requirements, Section VI.A.

## VI.B. Patient Safety

See International Foundational Requirements, Section VI.B.

## VI.C. Quality Improvement

See International Foundational Requirements, Section VI.C.

## VI.D. Supervision and Accountability

VI.D.1. Direct supervision of procedures performed by each fellow must occur until competence has been acquired and documented by the program director.

## VI.E. Professionalism

See International Foundational Requirements, Section VI.E.

## VI.F. Well-Being

See International Foundational Requirements, Section VI.F.

## VI.G. Fatigue

See International Foundational Requirements, Section VI.G.

## VI.H. Transitions of Care

See International Foundational Requirements, Section VI.H.

## VI.I. Clinical Experience and Education

See International Foundational Requirements, Section VI.I.

## VI.J. On-Call Activities

See International Foundational Requirements, Section VI.J.