



**ACGME International**

**Advanced Specialty Program Requirements for  
Graduate Medical Education in  
Pediatric Rheumatology  
(Pediatrics)**

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**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**

Pediatric rheumatology is a subspecialty of pediatrics that comprises the provision of care to infants, children, adolescents, and young adults with acute and chronic multisystem rheumatic and musculoskeletal diseases.

**Int. II. Duration of Education**

The educational program in pediatric rheumatology must be 36 or 48 months in length.

**I. Institution**

**I.A. Sponsoring Institution**

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

I.A.1.a) The pediatric rheumatology program should be geographically proximate to the affiliated pediatrics residency program.

I.A.2. The educational program in pediatric rheumatology must not negatively affect the education of residents in the affiliated pediatrics residency program.

**I.B. Participating Sites**

See International Foundational Requirements, Section I.B.

**II. Program Personnel and Resources**

**II.A. Program Director**

II.A.1. The program director must demonstrate a record of ongoing involvement in scholarly activity.

II.A.2. The program director must demonstrate a record of mentoring or guiding fellows in the acquisition of competence in the clinical, teaching, research,

quality improvement, and advocacy skills pertinent to the discipline.

- II.A.3. The program director must ensure that each fellow:
  - II.A.3.a) is provided with mentorship in development of the necessary clinical, educational, scholarship, and administrative skills; and,
  - II.A.3.b) documents experience in procedures.
  - II.A.3.b).(1) The program director must ensure that such documentation is reviewed as part of the fellow's semi-annual evaluation.
- II.A.4. The program director must coordinate, with the program directors of the pediatric residency and other related subspecialty programs, the incorporation of the ACGME-I Competencies into fellowship education to foster consistent expectations for fellows' achievement and faculty members' evaluation processes.
- II.A.5. Meetings with the program directors of the pediatrics residency program and all pediatric subspecialty programs should take place at least semiannually.
  - II.A.5.a) There must be documentation of these meetings.
  - II.A.5.b) These meetings should address a departmental approach to common educational issues and concerns that may include core curriculum, the ACGME-I Competencies, and evaluation.
- II.A.6. The fellowship program director must have the authority and responsibility to set and adjust clinical responsibilities and ensure that fellows have appropriate clinical responsibilities and patient loads.
- II.B. Faculty**
  - II.B.1. To ensure the quality of the education and scholarly activity of the program, and to provide adequate supervision of fellows, there must be at least two full-time equivalent (FTE) core faculty members, including the program director.
  - II.B.2. Faculty members must encourage and support fellows in scholarly activity.
    - II.B.2.a) This must include mentoring fellows in the application of scientific principles, epidemiology, biostatistics, and evidence-based medicine to the clinical care of patients.
    - II.B.2.b) Scholarly activities must be in basic science, clinical care, health services, health policy, quality improvement, or education with implications for the field of pediatric rheumatology.

II.B.3. Qualified faculty members in the following pediatric subspecialties should be available for the education of fellows:

- II.B.3.a) child and adolescent psychiatry;
- II.B.3.b) child neurology;
- II.B.3.c) pediatric cardiology;
- II.B.3.d) pediatric critical care medicine;
- II.B.3.e) pediatric gastroenterology;
- II.B.3.f) pediatric hematology-oncology;
- II.B.3.g) pediatric infectious diseases; and,
- II.B.3.h) pediatric nephrology.

II.B.4. The faculty should also include the following specialists with substantial experience in treating pediatric problems:

- II.B.4.a) allergist and immunologist(s);
- II.B.4.b) anesthesiologist(s);
- II.B.4.c) dermatologist(s);
- II.B.4.d) medical geneticist(s);
- II.B.4.e) neuroradiologist(s);
- II.B.4.f) ophthalmologist(s);
- II.B.4.g) orthopedic surgeon(s);
- II.B.4.h) pathologist(s);
- II.B.4.i) pediatric surgeon(s);
- II.B.4.j) physiatrist(s); and,
- II.B.4.k) radiologist(s).

II.B.5. Consultants with expertise in adult rheumatology should be available for transition care of young adults.

## **II.C. Other Program Personnel**

II.C.1. To ensure multidisciplinary and interprofessional practice in pediatric rheumatology, the following personnel with pediatric focus and

experience should be available:

- II.C.1.a) child life therapist(s);
- II.C.1.b) dietitian(s);
- II.C.1.c) mental health professional(s);
- II.C.1.d) nurse(s);
- II.C.1.e) occupational therapist(s);
- II.C.1.f) pharmacist(s);
- II.C.1.g) physical therapist(s);
- II.C.1.h) respiratory therapist(s);
- II.C.1.i) school and special education liaison(s); and,
- II.C.1.j) social worker(s).

**II.D. Resources**

- II.D.1. Facilities and services, including comprehensive laboratory, pathology, and imaging services, must be available.
  - II.D.1.a) The program must have access to laboratories that perform testing specific to pediatric rheumatology.
- II.D.2. An adequate number and variety of pediatric rheumatology patients ranging in age from newborn through young adulthood must be available to provide a broad experience for fellows.
- II.D.3. A sufficient number of patients must be available in inpatient and outpatient settings to meet the educational needs of the program.

**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 pediatrics, or a pediatric 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

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.

IV.A.1.b).(1).(a) Fellows must demonstrate competence in the clinical skills necessary in pediatric rheumatology, including:

IV.A.1.b).(1).(a).(i) managing care of children with rheumatic diseases, to include:

IV.A.1.b).(1).(a).(i).(a) acute rheumatic fever/post streptococcal arthritis and reactive arthritis;

IV.A.1.b).(1).(a).(i).(b) dermatomyositis/polymyositis;

IV.A.1.b).(1).(a).(i).(c) infections of bones and joints, to include Lyme disease;

IV.A.1.b).(1).(a).(i).(d) joint hypermobility syndromes;

IV.A.1.b).(1).(a).(i).(e) juvenile idiopathic arthritis and/or uveitis;

IV.A.1.b).(1).(a).(i).(f) psoriatic arthritis;

IV.A.1.b).(1).(a).(i).(g) rheumatic aspects of malignancy;

IV.A.1.b).(1).(a).(i).(h) rheumatic aspects of systemic and genetic diseases (e.g., endocrine, metabolic, pulmonary, and gastrointestinal diseases, periodic fever syndromes, and skeletal dysplasias);

IV.A.1.b).(1).(a).(i).(i)	scleroderma, both localized and systemic;
IV.A.1.b).(1).(a).(i).(j)	systemic lupus erythematosus;
IV.A.1.b).(1).(a).(i).(k)	systemic vasculitis (e.g., Henoch-Schonlein purpura, granulomatosis with polyangiitis, polyarteritis nodosa, Kawasaki disease); and,
IV.A.1.b).(1).(a).(i).(l)	undifferentiated rheumatic diseases, other musculoskeletal complaints, and abnormal laboratory tests related to rheumatic diseases.
IV.A.1.b).(1).(a).(ii)	promoting emotional resilience in children and adolescents and their families, to include:
IV.A.1.b).(1).(a).(ii).(a)	providing care that is sensitive to the developmental stage of the patient with common behavioral and mental health issues, and the cultural context of the patient and the patient's family; and,
IV.A.1.b).(1).(a).(ii).(b)	referring and/or co-managing patients with common behavioral and mental health issues along with appropriate specialists when indicated.
IV.A.1.b).(1).(a).(iii)	providing consultation, performing a history and physical examination, making informed diagnostic and therapeutic decisions that result in optimal clinical judgement, and developing and carrying out management plans; and,
IV.A.1.b).(1).(a).(iv)	providing transfer of care that ensures seamless transitions.
IV.A.1.b).(1).(b)	Fellows must demonstrate competence in the utilization of:
IV.A.1.b).(1).(b).(i)	bedside ultrasound;
IV.A.1.b).(1).(b).(ii)	immunomodulatory therapy;

IV.A.1.b).(1).(b).(iii)	interpretation of slit lamp examination of the eye;
IV.A.1.b).(1).(b).(iv)	nailfold capillary microscopy; and,
IV.A.1.b).(1).(b).(v)	pharmacologic and non-pharmacologic management of pain, including the multiple modalities by which pain can be treated.
IV.A.1.b).(1).(c)	Fellows must demonstrate competence in the management of patients with acute or chronic complex multi-system rheumatic disease in an ambulatory, emergency, or inpatient setting.
IV.A.1.b).(1).(d)	Fellows must demonstrate competence in the selection, interpretation and evaluation of laboratory tests, imaging and other diagnostic procedures necessary for pathologic, physiologic, immunologic, microbiologic, radiologic, and psychosocial assessment of rheumatic and musculoskeletal diseases.
IV.A.1.b).(1).(e)	Fellows must demonstrate competence in providing care for patients with whom they have limited or no physical contact, through telemedicine.
IV.A.1.b).(1).(f)	Fellows must demonstrate competence in making and coordinating consultations for physical therapy and/or occupational therapy.
IV.A.1.b).(1).(g)	Fellows must demonstrate leadership skills to enhance team function, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients.
IV.A.1.b).(2)	Fellows must be able to perform all medical, diagnostic, and surgical procedures considered essential for the area of practice.
IV.A.1.b).(2).(a)	Fellows must demonstrate the necessary procedural skills and develop an understanding of their indications, risks, and limitations, including:
IV.A.1.b).(2).(a).(i)	diagnostic aspiration of joints and interpretation of synovial fluid studies; and,
IV.A.1.b).(2).(a).(ii)	intra-articular administration of glucocorticoids.



- 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) biostatistics, bioethics, clinical and laboratory research methodology, study design, preparation of applications for funding and/or approval of clinical research protocols, critical literature review, principles of evidence-based medicine, ethical principles involving clinical research, and teaching methods;
- IV.A.1.c).(1).(b) the multidisciplinary nature of pediatric rheumatology; and,
- IV.A.1.c).(1).(c) normal growth and development, with emphasis on the musculoskeletal system, as well as the correlation of pathophysiology with clinical diseases.
- 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.e).(1).(a) Fellows must demonstrate competence in communicating as a consulting physician to patients with complex and chronic rheumatic diseases, and with these patients' families.
- 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 determinants 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. Fellows must have a formally-structured educational program in the clinical and basic sciences related to pediatric rheumatology.
- IV.B.1.a) The program must utilize didactic and clinical experience for fellow education.
- IV.B.1.b) Pediatric rheumatology conferences must occur regularly and must involve active fellow participation in planning and implementation.
- IV.B.1.c) Fellows must participate in structured learning activities with a multidisciplinary team that includes the relevant allied health professionals.
- IV.B.1.d) Fellow education must include instruction in:
- IV.B.1.d).(1) basic and fundamental disciplines, as appropriate to pediatric rheumatology, such as anatomy, biochemistry, embryology, genetics, immunology, microbiology, nutrition/metabolism, pathology, pharmacology, and physiology;
- IV.B.1.d).(2) bioethics;
- IV.B.1.d).(2).(a) This should include attention to physician-patient, physician-family, physician-physician/allied health professional, and physician-society relationships.
- IV.B.1.d).(3) pathophysiology of disease, reviews of recent advances in clinical medicine and biomedical research, and conferences dealing with complications and death, as well as the scientific, ethical, and legal implications of confidentiality and informed consent; and,
- IV.B.1.d).(4) the economics of health care and current health care management issues, such as clinical outcomes, cost-effective patient care, practice management, preventive care, population health, quality improvement, and resource allocation.
- IV.B.1.e) The program should provide instruction and experience in the rehabilitative and psychosocial aspects of chronic rheumatic diseases as they affect the child.
- IV.B.1.f) The program should provide instruction in indications for appropriate surgical interventions, including tissue biopsies in rheumatic diseases.

## **IV.C. Clinical Experiences**

- IV.C.1. Fellows must have a minimum of 12 months of clinical experience.
- IV.C.2. The educational program must include fellow experience in counseling patients with chronic illness and these patients' families.
- IV.C.3. Fellow education must include experience in serving as a role model and providing supervision to residents and/or medical students.
- IV.C.4. 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.5. Clinical experiences should be structured to facilitate learning in a manner that allows fellows to function as part of an effective interprofessional team that works together longitudinally with shared goals of patient safety and quality improvement.
- IV.C.6. Fellows must have responsibility for providing longitudinal care to a panel of patients throughout their educational program that is supervised by one or more members of the pediatric rheumatology faculty.
  - IV.C.6.a) This must include longitudinal care for outpatients.
  - IV.C.6.b) The panel of patients must be representative of the types of rheumatic complaints fellows are likely to encounter once they complete the educational program.

## **IV.D. Scholarly Activity**

- IV.D.1. Fellows' Scholarly Activity
  - IV.D.1.a) The program must have a core curriculum in research and scholarship.
    - IV.D.1.a).(1) Where appropriate, the curriculum should be a collaborative effort involving all pediatric subspecialty programs at the Sponsoring Institution.
  - IV.D.1.b) The program must provide a Scholarship Oversight Committee for each fellow to oversee and evaluate the fellow's progress as related to scholarly activity.
    - IV.D.1.b).(1) Where applicable, a fellow's Scholarship Oversight Committee should be a collaborative effort involving other pediatric subspecialty programs or other experts.
  - IV.D.1.c) Each fellow must design and conduct a scholarly project in

pediatric rheumatology with guidance from the fellowship director and a designated mentor. The designated mentor must:

- IV.D.1.c).(1) be approved by the Scholarship Oversight Committee; and,
- IV.D.1.c).(2) have expertise in the fellow's area of scholarly interest, either as a faculty member in pediatric rheumatology or through collaboration with other departments or divisions.
- IV.D.1.d) Fellows' scholarly experience must begin in the first year of and continue for the entire length of the educational program.
- IV.D.1.d).(1) The experience must be structured to allow development of requisite skills in research and scholarship, and to provide sufficient time for project completion and presentation of results to the Scholarship Oversight Committee.

IV.D.2. Faculty Scholarly Activity

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

**V. Evaluation**

See International Foundational Requirements, Section V.A.

**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. The program director must have the authority and responsibility to set and adjust the clinical responsibilities and ensure that fellows have appropriate clinical responsibilities and an appropriate patient load.

VI.D.1.a) This must include progressive clinical, technical, and consultative experiences that will enable each fellow to develop expertise as a pediatric rheumatology consultant.

VI.D.2. Lines of responsibility for the fellows must be clearly defined.

**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.