



ACGME International

Advanced Specialty Program Requirements for Graduate Medical Education in Pediatric Radiology (Radiology)

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I. Introduction

I.A. Definition and Scope of Specialty

Specialists in pediatric radiology provide care to infants, children, and adolescents by applying their knowledge to appropriately image both common and rare pediatric diseases in a safe environment directed to the special needs of those served. Pediatric radiologists function as expert diagnosticians, consultants, and clinicians who use all pediatric imaging modalities, including radiography; computed tomography (CT); ultrasonography; vascular intervention techniques; nuclear radiology, to include positron emission tomography (PET), magnetic resonance imaging (MRI), and any other imaging modality customarily utilized in the specialty.

I.B. Duration of Education

- I.B.1. The educational program in pediatric radiology must be 12 or 24 months in length.

II. Institutions

II.A. Sponsoring Institution

- II.A.1. A fellowship in pediatric radiology must function as an integral part of an ACGME-I-accredited residency program in radiology.
- II.A.2. The educational program in pediatric radiology must not negatively affect the education of residents in the affiliated radiology residency program.
- II.A.3. There should be an ACGME-I-accredited pediatric residency program, as well as pediatric medical and surgical subspecialty programs, to provide an appropriate patient population and educational resources.

II.B. Participating Sites

See International Subspecialty Foundational Requirements, Section I.B.

III. Program Personnel and Resources

III.A. Program Director

- III.A.1. Qualifications of the program director must include completion of a fellowship or extensive post-residency experience in pediatric radiology.
- III.A.2. The program director should spend at least 80 percent of his or her professional time in pediatric radiology.

- III.A.3. The program director must:
- III.A.3.a) select and supervise the fellows and comply with departmental, institutional, and ACGME-I guidelines concerning fellowship issues;
 - III.A.3.b) work with the members of the faculty to organize, continuously evaluate, and improve the fellowship educational program; and,
 - III.A.3.c) ensure that goals and objectives of specific rotations are distributed to fellows and faculty members.

III.B. Faculty

- III.B.1. To ensure the quality of the educational and scholarly activity of the program, and to provide adequate supervision of fellows, there must be at least one pediatric radiologist for every subspecialty fellow.
- III.B.1.a) The faculty should include members experienced in imaging pediatric patients in the subspecialty areas of neuroradiology, musculoskeletal radiology, cardiothoracic radiology, and vascular/interventional radiology.
- III.B.2. Pediatric radiology faculty members should supervise special imaging, such as ultrasound, cardiac, interventional radiology, nuclear radiology, CT, and MRI.
- III.B.3. A broad range of pediatric medical and surgical subspecialists should be available to the program, including:
- III.B.3.a) at least one full time pediatrician;
 - III.B.3.b) at least one pediatric surgeon; and,
 - III.B.3.c) at least one pediatric pathologist.

III.C. Other Program Personnel

See International Subspecialty Foundational Requirements, Section II.C.

III.D. Resources

See International Subspecialty Foundational Requirements, Section II.D.

IV. Fellow Appointments

IV.A. Eligibility Criteria

- IV.A.1. Prior to appointment in the program, fellows should have completed an Accreditation Council for Graduate Medical Education (ACGME)- or ACGME-I-accredited residency program in radiology, or a radiology

residency program acceptable to the Sponsoring Institution's Graduate Medical Education Committee (GMEC).

IV.B. Number of Fellows

See International Subspecialty Foundational Requirements, Section III.B.

V. Specialty-Specific Educational Program

V.A. Regularly Scheduled Didactic Sessions

V.A.1. Fellows must participate on a regular basis in scheduled conferences and didactic sessions.

V.A.2. Conferences must provide progressive fellow participation.

V.A.2.a) Scheduled presentations by fellows should be encouraged and should include:

V.A.2.a).(1) intradepartmental conferences;

V.A.2.a).(2) departmental grand rounds;

V.A.2.a).(3) at least one interdisciplinary conference per week; and,

V.A.2.a).(4) peer-reviewed case conferences and/or morbidity and mortality conferences.

V.A.3. Didactic sessions must be directed to the level of the fellow and provide formal review of the topics in the specialty curriculum.

V.A.3.a) Didactic sessions should occur at least twice a month.

V.A.4. Fellows must attend a minimum of three departmental or interdepartmental conferences per week dedicated to pediatric radiology, which may include rounds with pediatric services.

V.A.5. Fellows must actively participate in teaching conferences for medical students, radiology residents, other residents rotating on the pediatric radiology service, and other health professional training programs.

V.A.6. Fellows should attend at least one national or international meeting or post-graduate course in the subspecialty during the educational program.

V.B. Clinical Experience

V.B.1. The program should provide rotations in chest, body imaging, abdominal and genitourinary imaging, emergency call, ultrasound, musculoskeletal, nuclear medicine, fluoroscopy, vascular/interventional, neuroradiology, cardiology, and fetal imaging.

V.B.1.a) Rotations should have different lengths and designated rotations should be designed by the program director with the members of the faculty.

V.B.2. Fellows must assume direct and progressive responsibility in pediatric imaging as they advance through the program.

V.B.3. Fellows may elect to take up to three months training in a subspecialty area of pediatric radiology.

V.B.4. Fellows should have shared clinical experiences with residents in general pediatrics and with fellows in pediatric-related subspecialties, such as adolescent medicine, neonatology, pediatric cardiology, pediatric pathology, and pediatric surgery.

V.C. Fellows' Scholarly Activities

V.C.1. The program must provide instruction in the fundamentals of experimental design, performance, and interpretation of results.

V.C.2. All fellows must engage in a scholarly project.

V.C.2.a) The results of the scholarly project must be submitted for publication or presented at departmental, institutional, local, regional, national, or international meetings.

V.C.2.b) The project should include laboratory research, clinical research, or an analysis of disease processes, imaging techniques, or practice management issues.

V.D. Duty Hour and Work Limitations

V.D.1. Lines of responsibility for the radiology residents and the subspecialty fellows must be clearly defined.

V.D.2. Fellows must perform all exams and/or invasive studies under close, graded responsibility and supervision.

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.

VI.A.1. Fellows must demonstrate proficiency in:

- VI.A.1.a) using appropriate imaging, as applies to congenital, developmental, or acquired diseases of the newborn, infant, child, and adolescent, that is fundamental to the practice of pediatrics;
- VI.A.1.b) interpreting all exams and/or invasive studies with an awareness of normal, normal variants, and typical imaging findings of pediatric diseases and congenital malformations; and,
- VI.A.1.c) executing sound clinical judgement in pediatric imaging.
- VI.A.2. Fellows must competently perform all medical, diagnostic, and surgical procedures considered essential for the practice of pediatric radiology. Fellows must:
 - VI.A.2.a) apply low dose radiation techniques for both adults and children.

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 knowledge of:

- VI.B.1. those areas appropriate for a radiologist specialist, including,
 - VI.B.1.a) low-dose radiation techniques for both adults and children; and,
 - VI.B.1.b) prevention and treatment of complications of contrast administration.

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 lifelong learning.

- VI.C.1. Fellows must follow standards of care for practicing in a safe environment, attempt to reduce errors, and improve patient outcomes.

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.D.1. Fellows must provide accurate and timely consultation with referring physicians or services.

VI.D.2. Fellows must demonstrate skill in education of radiology residents, and if appropriate, medical students and other professional personnel in clinical settings, classrooms, lectures, and seminars, as well as through electronic and print modalities.

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 in the country or region in which they practice, as well as the ability to call effectively on other resources in the system to provide optimal health care.