



ACGME International

**Advanced Specialty Program Requirements for
Graduate Medical Education in
Pediatric Emergency Medicine (Emergency Medicine or Pediatrics)**

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I. Introduction

I.A. Definition and Scope of Specialty

A fellowship program in pediatric emergency medicine leads to clinical competence and independent practice in the subspecialty as it relates to the management of the acutely ill or injured child in an emergency care setting.

I.B. Duration of Education

I.B.1. The educational program in pediatric emergency medicine must be planned for graduates of an emergency medicine residency and a pediatrics residency.

I.B.1.a) For graduates of an emergency medicine residency, the program must be 24 or 36 months in length.

I.B.1.b) For graduates of a pediatric residency, the program must be 36 or 48 months in length.

II. Institutions

II.A. Sponsoring Institution

II.A.1. A fellowship in pediatric emergency medicine must be administered by and function as an integral part of an ACGME-I-accredited residency in either emergency medicine or pediatrics.

II.A.1.a) The pediatric emergency medicine fellowship and the ACGME-I-accredited residency in either emergency medicine or pediatrics must be sponsored by the same ACGME-I-accredited Sponsoring Institution.

II.A.2. The fellowship must be affiliated with ACGME-I-accredited residencies in both emergency medicine and pediatrics.

II.B. Participating Sites

II.B.1. A participating site that provides more than four months of required educational experience must be pre-approved by the Review Committee-International.

III. Program Personnel and Resources

III.A. Program Director

III.A.1. At a minimum, the program director must be provided with the salary support required to devote 20 percent full-time equivalent (FTE), or one day per week, of non-clinical time to the administration of the program.

III.A.2. Qualifications of the program director must include:

III.A.2.a) at least three years' experience as a clinician, teacher, and administrator in pediatric emergency medicine; and,

III.A.2.b) a record of ongoing involvement in scholarly activities.

III.B. Faculty

III.B.1. Teaching and consultant faculty members in the full range of pediatric and emergency medicine subspecialties and in other related disciplines must be available, including:

III.B.1.a) pediatric surgeons;

III.B.1.b) radiologists; and,

III.B.1.c) surgical subspecialists as appropriate to pediatric emergency medicine.

III.B.2. There must be at least three core faculty members, including the program director, who are certified in or who have extensive experience in pediatric emergency medicine.

III.B.3. Faculty members must be actively engaged in all curricular elements, including didactics and clinical experience in the management of acutely ill and injured pediatric patients.

III.B.4. Faculty members must mentor fellows in the application of scientific principles, epidemiology, biostatistics, and evidence-based medicine to the clinical care of patients.

III.C. Other Program Personnel

III.C.1. To enhance fellows' understanding of the multidisciplinary nature of pediatric emergency medicine, the following personnel with pediatric focus and experience should be available:

III.C.1.a) child life therapist(s);

III.C.1.b) dietitian(s);

III.C.1.c) mental health professional(s);

III.C.1.d) nurse(s);

III.C.1.e) pharmacist(s);

III.C.1.f) respiratory therapist(s); and,

III.C.1.g) social worker(s).

III.D. Resources

III.D.1. There must be an acute care facility that receives patients via ambulance from the pre-hospital setting and is equipped to handle trauma of any severity.

III.D.1.a) This facility should be accredited by the Joint Commission International or by another entity with reasonably equivalent standards as determined by the Review Committee-International.

III.D.1.b) This facility must be approved as an ambulance-receiving facility or its equivalent and be part of an emergency medical services system, if provided in the country or jurisdiction.

III.D.2. There must be comprehensive radiologic and laboratory support systems, readily available operative suites, and intensive care unit beds.

III.D.3. Support services either at the primary clinical site or through a formal referral system to an appropriate facility must include:

III.D.3.a) clinical laboratories;

III.D.3.b) imaging;

III.D.3.c) intensive care;

III.D.3.d) mental health services;

III.D.3.e) nutrition services;

III.D.3.f) occupational therapy;

III.D.3.g) pathology;

III.D.3.h) pharmacology;

III.D.3.i) physical therapy;

III.D.3.j) respiratory therapy; and,

III.D.3.k) social services.

III.D.4. An adequate number and variety of patients, ranging in age from newborn to young adulthood, must be available to provide a broad experience for the fellows.

III.D.4.a) There must be a minimum of 20,000 pediatric patient visits per year in the program's primary emergency department.

- III.D.4.b) There must be a sufficient number of acutely ill patients with major and minor trauma, airway obstruction or management, ingestions, obstetric and gynecologic disorders, psychosocial disturbances, and emergent problems representing all pediatric medical and surgical subspecialties.

IV. Fellow Appointments

IV.A. Eligibility Criteria

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

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 have a formally structured educational program in the clinical and basic sciences related to pediatric emergency medicine.
- V.A.1.a) Clinical and basic science instruction should be evidence-based on review and analysis of relevant literature.
- V.A.2. Fellows must participate in multi-disciplinary conferences that include lectures, morbidity and mortality conferences, case conferences, general reviews, and research seminars.
- V.A.3. Pediatric emergency medicine conferences should be regularly scheduled, and fellows should actively participate in the planning and implementation of these meetings.
- V.A.3.a) Faculty members' and fellows' attendance must be documented.
- V.A.3.b) Both faculty members and fellows should participate meaningfully in the didactic activities.
- V.A.4. Fellow education should include instruction in:
- V.A.4.a) basic and fundamental disciplines, as appropriate to pediatric emergency medicine, such as anatomy, biochemistry, embryology, genetics, immunology, microbiology, nutrition/metabolism, pathology, pharmacology, and physiology;

- V.A.4.b) pathophysiology of disease, reviews of recent advances in clinical medicine, and biomedical research;
- V.A.4.c) the economics of health care and current health care management issues, such as cost-effective patient care, practice management, preventive care, population health, quality improvement, resource allocation, and clinical outcomes;
- V.A.4.d) curriculum design, information delivery in clinical and other settings, provision of feedback to learners, assessment of educational outcomes, and the development of teaching materials;
- V.A.4.e) diversity, family presence during resuscitations, cultural competence, and professionalism;
- V.A.4.f) communication skills and self-directed assessment and learning; and,
- V.A.4.g) complications and death and the scientific, ethical, and legal implications of confidentiality and informed consent.
- V.A.5. Fellows should have formal sessions on organizing teaching programs, medical writing, and oral presentations.
- V.A.6. Fellows should receive instruction and experience in administrative and management skills, including quality improvement principles, necessary to oversee a division or department.

V.B. Clinical Experience

- V.B.1. Programs must specify a curriculum for graduates of an emergency medicine residency and a pediatric residency.
- V.B.2. The curriculum for fellows who have completed a residency in emergency medicine must include the following experiences that are part of the affiliated ACGME-I-accredited pediatric residency:
 - V.B.2.a) at least three months in general pediatrics;
 - V.B.2.b) two months in outpatient pediatric clinics, including exposure to pediatric subspecialties; and,
 - V.B.2.c) at least three months in the management of critically-ill neonates and children in intensive care units.
- V.B.3. The curriculum for fellows who have completed a residency in pediatrics must include the following experiences that are part of the affiliated ACGME-I-accredited emergency medicine residency:

- V.B.3.a) at least four months caring for adults in emergency medicine; and,
- V.B.3.a).(1) No more than one month of this experience should be on the adult trauma surgery service.
- V.B.3.b) a structured educational experience in emergency medical services and toxicology that includes the care of adults.
- V.B.3.b).(1) Fellow experience should include both didactic and experiential components that may be longitudinally integrated into other parts of the curriculum or designed as block rotations.
- V.B.3.b).(2) Fellow experience should include acute toxicology consultations, and, if provided in the country or jurisdiction, ride-alongs with emergency medicine services in the field.
- V.B.4. Fellows must participate in the care of pediatric patients of all ages, from infancy through young adulthood, and with a broad spectrum of illnesses and injuries of all severities.
- V.B.5. At least 12 months of the clinical experience must be spent seeing children in an emergency department where pediatric patients are treated for the full spectrum of illnesses and injuries.
- V.B.6. Fellow experience must include experience with blunt and penetrating trauma and psychiatric emergencies.
- V.B.7. The core content of the program must include education in emergency medical services for children (EMSC), administration, legal issues, procedures, patient safety, medical errors, ethics, and professionalism.
- V.B.8. Fellows must interact with the residents and faculty members in the affiliated core residencies.

V.C. Fellows' Scholarly Activities

- V.C.1. Scholarly activities must be in basic science, clinical care, health services, health policy, quality improvement, or education, as it relates to pediatric emergency medicine.
- V.C.2. Each fellow must design and conduct a scholarly project under the guidance of the program director and a designated mentor.
- V.C.3. The program must provide a Scholarship Oversight Committee for each fellow to supervise and evaluate the fellow's progress as related to scholarly activity.
- V.C.4. The scholarly experience must begin in the first year and continue for the entire length of the educational program.

V.C.4.a) There must be adequate time for each fellow's development of requisite skills, project completion, and presentation of results to the Scholarship Oversight Committee.

V.D. The Learning and Working Environment

V.D.1. When pediatric emergency medicine fellows are on emergency medicine rotations, there must be at least one equivalent period of continuous time off between scheduled work periods.

V.D.2. When on emergency medicine rotations, fellows must have a minimum of one day (24-hour period) free per each seven-day period.

V.D.2.a) This must not be averaged over a four-week period.

V.D.3. While on duty in the emergency department, fellows must not work longer than 12 continuous scheduled hours.

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 the ability to provide consultation, perform a history and physical examination, make informed diagnostic and therapeutic decisions that result in optimal clinical judgement, and develop and carry out management plans.

VI.A.2. Fellows must demonstrate the ability to: provide transfer of care that ensures seamless transitions; counsel patients and families; use information technology to optimize patient care; and provide appropriate role modeling and supervision.

VI.A.3. To promote emotional resilience in children, adolescents, and their families, fellows must:

VI.A.3.a) provide 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 family; and,

VI.A.3.b) demonstrate the ability to refer and/or co-manage patients with common behavioral and mental health issues along with appropriate specialists when indicated.

VI.A.4. 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.

- VI.A.5. Fellows must demonstrate competence in:
- VI.A.5.a) providing initial evaluation and treatment to all patients presenting to the emergency department;
 - VI.A.5.b) providing care for acutely ill and/or injured pediatric patients;
 - VI.A.5.c) differentiating between high-acuity and low-acuity patients;
 - VI.A.5.d) performing an age- and developmentally-appropriate, precise history and physical exam;
 - VI.A.5.e) developing a complaint-based and age-appropriate differential diagnosis using evidence-guided reasoning and pattern recognition;
 - VI.A.5.f) developing and initiating a prioritized diagnostic evaluation and therapeutic management plan that is complaint- and disease-specific, evidence-guided, culturally competent, and cost effective;
 - VI.A.5.g) accurately documenting patient encounters;
 - VI.A.5.h) demonstrating family-centered care with informed and/or shared decision-making with patients/families that is developmentally appropriate and within state statutes;
 - VI.A.5.i) developing appropriate patient dispositions;
 - VI.A.5.j) performing rapid and concise evaluations on patients with undifferentiated chief complaints and diagnoses, with simultaneous stabilization of any life-threatening conditions, and ensuring appropriate life-saving interventions before arriving at a definitive diagnosis;
 - VI.A.5.k) providing care for medically- and technologically-complex pediatric patients in the emergency department;
 - VI.A.5.l) developing a diagnostic and management plan that takes into consideration the interaction between the acute problem and the underlying chronic illness with its associated co-morbidities;

- VI.A.5.m) demonstrating compassion for the stress associated with sudden illness, injury, and death in responding to the emotional needs of patients, their families, and emergency department staff members;
- VI.A.5.n) demonstrating the skills necessary to prioritize and simultaneously manage the emergency care of multiple patients; and,
- VI.A.5.o) assuming leadership responsibility for the pediatric emergency department.
- VI.A.6. Fellows must demonstrate competence in performing and interpreting the results of imaging and diagnostic procedures and the resulting laboratory tests for use in patient care.
- VI.A.7. Fellows must acquire the necessary procedural and resuscitation skills, and develop an understanding of their indications, risks, and limitations for pediatric patients of all ages, including:
 - VI.A.7.a) abscess incision and drainage;
 - VI.A.7.b) airway and assisted ventilation, including bag-valve-mask ventilation, rapid sequence intubation, and supraglottic device insertion;
 - VI.A.7.c) cardioversion/defibrillation;
 - VI.A.7.d) central venous catheterization;
 - VI.A.7.e) closed reduction/splinting of fractures and dislocations;
 - VI.A.7.f) conversion of supraventricular tachycardia;
 - VI.A.7.g) cricothyrotomy – translaryngeal ventilation;
 - VI.A.7.h) epistaxis management, to include nasal packing;
 - VI.A.7.i) external cardiac pacing;
 - VI.A.7.j) foreign body removal;
 - VI.A.7.k) gastrostomy tube placement;
 - VI.A.7.l) initial management of burn injuries;

- VI.A.7.m) intraosseous access;
- VI.A.7.n) laceration repair;
- VI.A.7.o) lumbar puncture;
- VI.A.7.p) mechanical ventilation;
- VI.A.7.q) medical and trauma resuscitation in pediatric patients ranging in age from newborn to young adulthood;
- VI.A.7.r) non-invasive ventilation;
- VI.A.7.s) pericardiocentesis;
- VI.A.7.t) procedural sedation;
- VI.A.7.u) point of care ultrasound;
- VI.A.7.v) regional anesthesia;
- VI.A.7.w) slit lamp examination;
- VI.A.7.x) tube replacement in a mature tracheostomy site;
- VI.A.7.y) tube thoracostomy and needle decompression of pneumothorax;
- VI.A.7.z) umbilical vessel catheterization; and,
- VI.A.7.aa) vaginal delivery.

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.

- VI.B.1. Fellows must demonstrate knowledge of biostatistics, 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.

VI.C. Practice-based Learning and Improvement

VI.C.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.

VI.D. Interpersonal and Communication Skills

VI.D.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.

VI.E. Professionalism

VI.E.1. Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

VI.F. Systems-based Practice

VI.F.1. 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.