



ACGME International

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

Initial approval: 1 February 2020

ACGME International Program Requirements for Graduate Medical Education in Pediatric Gastroenterology (Pediatrics)

I. Introduction

I.A. Definition and Scope of Specialty

A fellowship in pediatric gastroenterology provides fellows with the background and experience to diagnose and manage patients with acute and chronic diseases of the digestive system (esophagus, stomach, intestines, hepatobiliary system, and pancreas) and with nutritional disorders, and to conduct scholarly activity in this specialized field.

I.B. Duration of Education

I.B.1. The educational program in pediatric gastroenterology must be 36 or 48 months in length.

II. Institutions

II.A. Sponsoring Institution

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

II.A.1.a) The pediatric gastroenterology program should be geographically proximate to the core pediatric residency program.

II.A.2. The educational program in pediatric gastroenterology must not negatively affect the education of residents in the affiliated pediatric residency program.

II.B. Participating Sites

See International Subspecialty Foundational Requirements, Section I.B.

III. Program Personnel and Resources

III.A. Program Director

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

III.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.

III.A.3. The program director must ensure that each fellow:

III.A.3.a) is provided with mentorship in development of the necessary clinical, educational, scholarship, and administrative skills; and,

III.A.3.b) documents experience in procedures, and that such documentation is available for review.

- III.A.4. The program director must coordinate, with the core and subspecialty program directors, the incorporation of the competencies into fellowship education to foster consistent expectations for fellows' achievement and faculty members' evaluation processes.
- III.A.5. Meetings with the program directors of the core residency program and all pediatric subspecialties should take place at least semiannually.
- III.A.5.a) There must be documentation of the meetings.
- III.A.5.b) The meetings should address a departmental approach to common educational issues and concerns that may include core curriculum, the Competencies, and evaluation.
- III.A.6. The program director must have the authority and responsibility to set and adjust the clinical responsibilities and ensure that the fellows have appropriate clinical responsibilities and an appropriate patient load.

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 three faculty members, including the program director.
- III.B.2. Faculty members must encourage and support fellows in scholarly activities.
- III.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.
- III.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 gastroenterology.
- III.B.3. Qualified faculty members in the following pediatric subspecialties should be available for the education of fellows:
- III.B.3.a) neonatal-perinatal medicine;
- III.B.3.b) pediatric cardiology;
- III.B.3.c) pediatric critical care medicine;
- III.B.3.d) pediatric endocrinology;
- III.B.3.e) pediatric hematology-oncology;
- III.B.3.f) pediatric infectious disease;
- III.B.3.g) pediatric nephrology; and,
- III.B.3.h) pediatric pulmonology.

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

- III.B.4.a) anesthesiologist(s);
- III.B.4.b) child and adolescent psychiatrist(s);
- III.B.4.c) child neurologist(s);
- III.B.4.d) medical geneticist(s);
- III.B.4.e) pathologist(s);
- III.B.4.f) pediatric radiologists(s);
- III.B.4.g) pediatric surgeon(s); and,
- III.B.4.h) transplant hepatologist(s).

III.B.5. Consultants should be available in adult gastroenterology for transition care of young adults.

III.C. Other Program Personnel

III.C.1. To ensure multidisciplinary and interprofessional practice in pediatric gastroenterology, 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) physical and occupational therapist(s);
- III.C.1.g) respiratory therapist(s);
- III.C.1.h) school and special education liaison(s);
- III.C.1.i) social worker(s); and,
- III.C.1.j) speech and language therapist(s).

III.D. Resources

III.D.1. Facilities and services, including comprehensive laboratory, pathology, and imaging, must be available.

- III.D.1.a) There must be a fully-equipped and -staffed procedure facility that includes diagnostic and therapeutic endoscopic instruments, staff members skilled in the care of pediatric patients, and appropriate equipment for patients ranging in age from the neonate to the young adult.
- III.D.2. An adequate number and variety of pediatric gastroenterology patients ranging in age from newborn through young adulthood must be available to provide a broad experience for the fellows.
- III.D.3. A sufficient number of patients must be available in inpatient and outpatient settings to meet the educational needs of the program.

IV. Fellow Appointments

IV.A. Eligibility Criteria

- IV.A.1. Prior to appointment in the program, fellows should have completed an ACGME International (ACGME-I)-accredited residency program in pediatrics or a pediatric residency program 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 gastroenterology.
- V.A.1.a) The program must utilize didactic and clinical experience.
- V.A.1.b) Pediatric gastroenterology conferences must occur regularly, and must involve active participation by the fellows in planning and implementation.
- V.A.1.c) Fellow education must include instruction in:
- V.A.1.c).(1) basic and fundamental disciplines, as appropriate to pediatric gastroenterology, such as anatomy, physiology, biochemistry, embryology, pathology, microbiology, pharmacology, immunology, genetics, and nutrition/metabolism;
- V.A.1.c).(2) pathophysiology of disease, reviews of recent advances in clinical medicine and biomedical research, and conferences dealing with bioethics; complications and death; and the scientific, ethical, and legal implications of confidentiality and informed consent; and,

- V.A.1.c).(2).(a) Conferences should include relationships between physicians and with patients, families, allied health professionals, and society at large.
- V.A.1.c).(3) 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.1.d) Structured and scheduled interdisciplinary conferences with pediatric radiology, pediatric pathology, and pediatric surgery must be included in the didactic curriculum.

V.B. Clinical Experience

- V.B.1. Fellows must have responsibility for providing longitudinal care for outpatients throughout their educational program that is supervised by one or more members of the pediatric gastroenterology faculty.
- V.B.1.a) This must include longitudinal care for outpatients.
- V.B.1.b) The panel of patients must be representative of the types of gastroenterology disorders fellows are likely to encounter once they complete their educational program.

V.C. Fellows' Scholarly Activities

- V.C.1. The program must have a core curriculum in research and scholarship.
- V.C.1.a) Where appropriate, the curriculum should be a collaborative effort involving all pediatric subspecialty programs at the institution.
- V.C.2. Each fellow must design and conduct a scholarly project in the area of pediatric gastroenterology with guidance from the fellowship director and a designated mentor. The designated mentor must:
- V.C.2.a).(1) be approved by the scholarship oversight committee; and,
- V.C.2.a).(2) have expertise in the fellow's area of scholarly interest, either as a faculty member in pediatric gastroenterology or through collaboration with other departments or divisions.
- V.C.3. The program must provide a scholarship oversight committee for each fellow to oversee and evaluate his or her progress as related to scholarly activity.
- V.C.3.a) Where applicable, the fellow scholarship oversight committee should be a collaborative effort involving other pediatric subspecialty programs or other experts.
- V.C.4. Fellows' scholarly experience must begin in the first year and continue for the entire length of the educational program.

V.C.4.a) The experience must be structured to allow development of requisite skills in research and scholarship, and provide sufficient time for project completion and presentation of results to the scholarship oversight committee.

V.D. Duty Hour and Work Limitations

See International Subspecialty Foundational Requirements, Sections VI.I. and VI.J.

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 necessary clinical skills needed in pediatric gastroenterology, including:

VI.A.1.a) 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;

VI.A.1.b) providing transfer of care that ensures seamless transitions, counseling patients and families, using information technology to optimize patient care, and providing appropriate role modeling and supervision;

VI.A.1.c) providing for or coordinating care for patients with complex and chronic diseases with the appropriate physician and/or agency;

VI.A.1.d) selecting, performing, and evaluating procedures for morphological, physiological, immunological, microbiological, and psychosocial assessment of gastrointestinal, pancreatic, and hepatobiliary diseases and nutritional disorders;

VI.A.1.e) using a variety of diagnostic tests, such as the use of imaging techniques, tests of digestive system function, histological interpretation of biopsy specimens, and assessment of nutritional status and pancreatic function; and,

VI.A.1.f) diagnosing and managing infants, children, and adolescents with acute and chronic liver diseases, biliary/cholestatic disease, pancreatic disorders, and nutritional disorders, and those requiring liver transplantation, including:

VI.A.1.f).(1) digestive tract anomalies;

VI.A.1.f).(2) functional bowel disorders;

VI.A.1.f).(3) gastrointestinal allergy;

- VI.A.1.f).(4) gastrointestinal bleeding;
 - VI.A.1.f).(5) gastrointestinal complications of eating disorders;
 - VI.A.1.f).(6) gastrointestinal infections;
 - VI.A.1.f).(7) gastrointestinal problems in the immune-compromised host, to include graft versus host (GVH) disease;
 - VI.A.1.f).(8) growth failure and malnutrition, to include an understanding of nutritional assessment and parenteral and enteral support;
 - VI.A.1.f).(9) hepatobiliary diseases, such as biliary atresia, diseases of the gallbladder, fatty liver, intrahepatic cholestasis, autoimmune liver disease, viral hepatitis, acute liver failure, and metabolic liver diseases;
 - VI.A.1.f).(10) inflammatory bowel disease;
 - VI.A.1.f).(11) malabsorption/maldigestion, such as celiac disease, cystic fibrosis, and pancreatic insufficiency;
 - VI.A.1.f).(12) motility disorders;
 - VI.A.1.f).(13) pancreatitis, acute and chronic; and
 - VI.A.1.f).(14) peptic ulcer disease.
- VI.A.2. Fellows must be able to competently perform all medical and diagnostic procedures considered essential for the practice of pediatric gastroenterology. Fellows must:
- VI.A.2.a) competently use and interpret the results of laboratory tests and imaging;
 - VI.A.2.b) acquire the necessary procedural skills and develop an understanding of their indications, contraindications, risks, and limitations;
 - VI.A.2.c) demonstrate competence in the performance and/or interpretation of:
 - VI.A.2.c).(1) breath hydrogen analysis;
 - VI.A.2.c).(2) colonoscopy, both diagnostic and therapeutic;
 - VI.A.2.c).(3) diagnostic gastrointestinal endoscopy;
 - VI.A.2.c).(4) endoscopic placement of feeding tubes, to include percutaneous endoscopic gastrostomy placement;
 - VI.A.2.c).(5) endoscopic removal of gastrointestinal foreign bodies;

- VI.A.2.c).(6) esophageal impedance/pH testing;
- VI.A.2.c).(7) gastrointestinal manometry;
- VI.A.2.c).(8) hemostatic techniques for variceal and nonvariceal gastrointestinal bleeding;
- VI.A.2.c).(9) pancreatic function testing;
- VI.A.2.c).(10) paracentesis;
- VI.A.2.c).(11) percutaneous liver biopsy;
- VI.A.2.c).(12) rectal suction biopsy; and,
- VI.A.2.c).(13) videocapsule endoscopy.

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. 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; and,
- VI.B.2. methods of initial evaluation and criteria for follow-up care for patients:
 - VI.B.2.a) requiring liver transplantation; and,
 - VI.B.2.b) with intestinal failure who require small bowel transplantation.

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.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 demonstrate skills in teaching both individuals and groups of learners in clinical settings, classrooms, lectures, and seminars, as well as by electronic and print modalities.
- VI.D.2. Fellows must demonstrate skills in providing feedback to learners and assessing educational outcomes.

VI.E. Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including:

- VI.E.1. trustworthiness that makes colleagues feel secure when the fellow is responsible for the care of patients;
- VI.E.2. leadership skills that enhance team function, the learning environment, and/or the health care delivery system/environment to improve patient care; and,
- VI.E.3. the capacity to recognize that ambiguity is part of clinical medicine and to respond by utilizing appropriate resources in dealing with uncertainty.

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.