ACGME Program Requirements for
Graduate Medical Education
in Pediatric Cardiology

Sections I-VI  General Pediatric Subspecialty Program Requirements
Sections VII-IX  Pediatric Cardiology Program Requirements

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ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics

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Revised Common Program Requirements effective: July 1, 2017
ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics

Common Program Requirements are in BOLD

Where applicable, text in italics describes the underlying philosophy of the requirements in that section. These philosophic statements are not program requirements and are therefore not citable.

In addition to complying with the requirements in this document, each program must comply with the Program Requirements for the respective subspecialty, which may exceed the minimum requirements set forth here. (Core)

Introduction

Int.A. Residency is an essential dimension of the transformation of the medical student to the independent practitioner along the continuum of medical education. It is physically, emotionally, and intellectually demanding, and requires longitudinally-concentrated effort on the part of the resident.

The specialty education of physicians to practice independently is experiential, and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge, and attitudes leading to proficiency in all the domains of clinical competency requires the resident physician to assume personal responsibility for the care of individual patients. For the resident, the essential learning activity is interaction with patients under the guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept--graded and progressive responsibility--is one of the core tenets of American graduate medical education. Supervision in the setting of graduate medical education has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident’s development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

Int.B. Duration of Educational Experience

Unless specified otherwise in the subspecialty-specific Program Requirements, the educational program must be 36 months in length. (Core)

I. Institutions

I.A. Sponsoring Institution

One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to fellow assignments at all participating sites. (Core)
The sponsoring institution and the program must ensure that the program director has sufficient protected time and financial support for his or her educational and administrative responsibilities to the program.  \(^{(Core)}\)

I.A.1. An accredited pediatric subspecialty program must exist in conjunction with and be an integral part of a core pediatric residency program, and must be sponsored by the same ACGME-accredited Sponsoring Institution.  \(^{(Core)}\)

I.A.1.a) The presence of a subspecialty program must not adversely affect the education of pediatric residents.  \(^{(Core)}\)

I.A.1.b) The subspecialty program should be geographically proximate to the core pediatric residency program.  \(^{(Detail)}\)

I.A.2. Program leadership, including the program director and associate program director(s), must be provided with a minimum combined total of 20-35 percent full time equivalent (FTE) protected time for the administration of the program (not including scholarly activity), depending on the size of the program, as follows.  \(^{(Core)}\)

<table>
<thead>
<tr>
<th>Program Size</th>
<th>% FTE Required</th>
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<tbody>
<tr>
<td>0-3 fellows</td>
<td>20%</td>
</tr>
<tr>
<td>4-6 fellows</td>
<td>25%</td>
</tr>
<tr>
<td>7-9 fellows</td>
<td>30%</td>
</tr>
<tr>
<td>≥ 10 fellows</td>
<td>35%</td>
</tr>
</tbody>
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I.A.3. The Sponsoring Institution must provide support for a program coordinator(s) and other support personnel required for operation of the program.  \(^{(Core)}\)

I.B. Participating Sites

I.B.1. There must be a program letter of agreement (PLA) between the program and each participating site providing a required assignment. The PLA must be renewed at least every five years.  \(^{(Core)}\)

The PLA should:

I.B.1.a) identify the faculty who will assume both educational and supervisory responsibilities for fellows;  \(^{(Detail)}\)

I.B.1.b) specify their responsibilities for teaching, supervision, and formal evaluation of fellows, as specified later in this document;  \(^{(Detail)}\)

I.B.1.c) specify the duration and content of the educational experience; and,  \(^{(Detail)}\)
I.B.1.d) 

state the policies and procedures that will govern fellow education during the assignment. *(Detail)*

I.B.2. 

The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all fellows, of one month full time equivalent (FTE) or more through the Accreditation Council for Graduate Medical Education (ACGME) Accreditation Data System (ADS). *(Core)*

I.B.3. 

Any site providing six months or more of required rotations should be approved by the Review Committee. *(Detail)*

II. Program Personnel and Resources

II.A. Program Director

II.A.1. 

There must be a single program director with authority and accountability for the operation of the program. The sponsoring institution’s GMEC must approve a change in program director. *(Core)*

II.A.1.a) 

The program director must submit this change to the ACGME via the ADS. *(Core)*

II.A.2. 

The program director should continue in his or her position for a length of time adequate to maintain continuity of leadership and program stability. *(Detail)*

II.A.3. 

Qualifications of the program director must include:

II.A.3.a) 

requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee; *(Core)*

II.A.3.b) 

current certification in the subspecialty by the American Board of Pediatrics, or subspecialty qualifications that are acceptable to the Review Committee; *(Core)*

II.A.3.b).(1) 

Qualifications other than subspecialty certification by the American Board of Pediatrics (ABP) will be considered only in exceptional circumstances. *(Detail)*

II.A.3.c) 

current medical licensure and appropriate medical staff appointment; and, *(Core)*

II.A.3.d) 

a record of ongoing involvement in scholarly activities, including peer-review publications and mentoring (i.e., guiding fellows in the acquisition of competence in the clinical, teaching, research, and advocacy skills pertinent to the discipline). *(Core)*

II.A.4. 

The program director must administer and maintain an educational environment conducive to educating the fellows in each of the
ACGME competency areas. (Core)

The program director must:

II.A.4.a) oversee and ensure the quality of didactic and clinical education in all sites that participate in the program; (Core)

II.A.4.b) approve a local director at each participating site who is accountable for fellow education; (Core)

II.A.4.c) approve the selection of program faculty as appropriate; (Core)

II.A.4.d) evaluate program faculty; (Core)

II.A.4.e) approve the continued participation of program faculty based on evaluation; (Core)

II.A.4.f) monitor fellow supervision at all participating sites; (Core)

II.A.4.g) prepare and submit all information required and requested by the ACGME; (Core)

II.A.4.g).(1) This includes but is not limited to the program application forms and annual program updates to the ADS, and ensure that the information submitted is accurate and complete. (Core)

II.A.4.h) ensure compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution; (Detail)

II.A.4.i) provide verification of fellowship education for all fellows, including those who leave the program prior to completion; (Detail)

II.A.4.j) implement policies and procedures consistent with the institutional and program requirements for fellow duty hours and the working environment, including moonlighting; (Core)

and, to that end, must:

II.A.4.j).(1) distribute these policies and procedures to the fellows and faculty; (Detail)

II.A.4.j).(2) monitor fellow duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements; (Core)

II.A.4.j).(3) adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and, (Detail)
II.A.4.j).(4) if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue. (Detail)

II.A.4.k) monitor the need for and ensure the provision of back up support systems when patient care responsibilities are unusually difficult or prolonged; (Detail)

II.A.4.l) comply with the sponsoring institution’s written policies and procedures, including those specified in the Institutional Requirements, for selection, evaluation and promotion of fellows, disciplinary action, and supervision of fellows; (Detail)

II.A.4.m) be familiar with and comply with ACGME and Review Committee policies and procedures as outlined in the ACGME Manual of Policies and Procedures; (Detail)

II.A.4.n) obtain review and approval of the sponsoring institution’s GMEC/DIO before submitting information or requests to the ACGME, including: (Core)

II.A.4.n).(1) all applications for ACGME accreditation of new programs; (Detail)

II.A.4.n).(2) changes in fellow complement; (Detail)

II.A.4.n).(3) major changes in program structure or length of training; (Detail)

II.A.4.n).(4) progress reports requested by the Review Committee; (Detail)

II.A.4.n).(5) requests for increases or any change to fellow duty hours; (Detail)

II.A.4.n).(6) voluntary withdrawals of ACGME-accredited programs; (Detail)

II.A.4.n).(7) requests for appeal of an adverse action; and, (Detail)

II.A.4.n).(8) appeal presentations to a Board of Appeal or the ACGME. (Detail)

II.A.4.o) obtain DIO review and co-signature on all program application forms, as well as any correspondence or document submitted to the ACGME that addresses: (Detail)

II.A.4.o).(1) program citations, and/or; (Detail)

II.A.4.o).(2) request for changes in the program that would have significant impact, including financial, on the program
II.A.4.p) ensure that the fellows are mentored in their development of clinical, educational, and administrative skills; (Core)

II.A.4.q) ensure that each fellow’s experience in such procedures be documented and that such documentation is available for review; (Core)

II.A.4.r) coordinate, with the core and subspecialty program directors, the incorporation of the competencies into fellowship education in order to foster consistent expectations with regard to fellows’ achievement of them, and for faculty members with regard to evaluation processes; and, (Core)

II.A.4.s) maintain documentation of meetings that describe ongoing interaction among pediatric subspecialty and core program directors. (Core)

II.A.4.s).(1) These meetings should take place at least semi-annually. (Detail)

II.A.4.s).(2) These meetings should address a departmental approach to common educational issues and concerns (e.g., core curriculum, competencies, evaluation). (Detail)

II.B. Faculty

II.B.1. At each participating site, there must be a sufficient number of faculty with documented qualifications to instruct and supervise all fellows at that location. (Core)

The faculty must:

II.B.1.a) devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities; and to demonstrate a strong interest in the education of fellows; and, (Core)

II.B.1.a).(1) In addition to the subspecialty program director, there must be at least one other member of the faculty who is qualified in the subspecialty. (Specific details are included in the related subspecialty-specific section of the Requirements.) (Core)

II.B.1.b) administer and maintain an educational environment conducive to educating fellows in each of the ACGME competency areas. (Core)

II.B.2. The physician faculty must have current certification in the subspecialty by the American Board of Pediatrics, or possess
Qualifications judged acceptable to the Review Committee. (Core)

II.B.2.a) Acceptable qualifications for the required key subspecialty faculty include: (Core)

II.B.2.a).(1) Certification, if eligible, by the appropriate member board of the American Board of Medical Specialties (ABMS); or,

II.B.2.a).(2) If ineligible for certification, documented subspecialty training and peer-reviewed publications in the field, with evidence of active participation in applicable local and national professional societies. (Detail)

II.B.2.b) Teaching and consultant faculty members in the full range of pediatric subspecialties and in other related disciplines must be available as specified in the subspecialty-specific requirements. (Core)

II.B.2.b).(1) The faculty should include an anesthesiologist(s), pathologist(s), and radiologist(s) who have substantial experience with pediatric problems and who interact with the fellows, as well as a medical geneticist(s), child neurologist(s), child and adolescent psychiatrist(s), pediatric surgeon(s), and surgical subspecialists, as appropriate to the subspecialty. (Detail)

II.B.3. The physician faculty must possess current medical licensure and appropriate medical staff appointment. (Core)

II.B.4. The nonphysician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments. (Core)

II.B.5. The faculty must establish and maintain an environment of inquiry and scholarship with an active research component. (Core)

II.B.5.a) The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences. (Detail)

II.B.5.b) Some members of the faculty should also demonstrate scholarship by one or more of the following:

II.B.5.b).(1) Peer-reviewed funding; (Detail)

II.B.5.b).(2) Publication of original research or review articles in peer-reviewed journals, or chapters in textbooks; (Detail)

II.B.5.b).(3) Publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or,

II.B.5.b).(4) Participation in national committees or educational
II.B.5.c) Faculty should encourage and support fellows in scholarly activities. (Core)

II.B.5.d) This must include the mentoring of fellows as they apply scientific principles, epidemiology, biostatistics, and evidence-based medicine to the clinical care of patients. (Core)

II.B.5.e) Scholarly activities should be in a field related to the subspecialty, such as basic science, clinical, health services, health policy, quality improvement, or education. (Detail)

II.B.5.f) To provide an appropriate environment for the fellows, the fellowship faculty must have a program of ongoing scholarship. (Core)

II.B.5.f).(1) This must be characterized by peer-reviewed funding and/or publications. (Core)

II.B.5.f).(2) The members of the teaching faculty must play a substantial role in conceiving and writing the funding application(s), conducting the project, collecting and analyzing data, and publishing results. (Core)

II.C. Other Program Personnel

The institution and the program must jointly ensure the availability of all necessary professional, technical, and clerical personnel for the effective administration of the program. (Core)

II.C.1. Professional personnel should include nutritionists, social workers, respiratory therapists, pharmacists, subspecialty nurses, physical and occupational therapists, child life therapists, and speech therapists with pediatric focus and experience, as appropriate to the subspecialty. (Detail)

II.D. Resources

The institution and the program must jointly ensure the availability of adequate resources for fellow education, as defined in the specialty program requirements. (Core)

II.D.1. Adequate inpatient and outpatient facilities, as specified in the requirements for each subspecialty, must be available. (Core)

II.D.1.a) These must be of sufficient size and be appropriately staffed and equipped to meet the educational needs of the program. (Core)

II.D.2. Support services must include clinical laboratories, intensive care, nutrition, occupational and physical therapy, pathology, pharmacology, mental health, diagnostic imaging, respiratory therapy, and social organizations. (Detail)
II.D.3. Patients must range in age from newborn through young adulthood, as appropriate. (Core)

II.D.4. Adequate numbers of pediatric subspecialty patients must be available to provide a broad experience for the fellows. (Core)

II.D.4.a) The program must maintain an appropriate balance of the number and variety of patients, the number of faculty members, and the number of fellows in the program. (Core)

II.E. Medical Information Access

Fellows must have ready access to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities should be available. (Detail)

III. Fellow Appointments

III.A. Eligibility Criteria

The program director must comply with the criteria for resident eligibility as specified in the Institutional Requirements. (Core)

III.A.1. Eligibility Requirements – Residency Programs

III.A.1.a) All prerequisite postgraduate clinical education required for initial entry or transfer into ACGME-accredited residency programs must be completed in ACGME-accredited residency programs, or in Royal College of Physicians and Surgeons of Canada (RCPSC)-accredited or College of Family Physicians of Canada (CFPC)-accredited residency programs located in Canada. Residency programs must receive verification of each applicant’s level of competency in the required clinical field using ACGME or CanMeds Milestones assessments from the prior training program. (Core)

III.A.1.b) A physician who has completed a residency program that was not accredited by ACGME, RCPSC, or CFPC may enter an ACGME-accredited residency program in the same specialty at the PGY-1 level and, at the discretion of the program director at the ACGME-accredited program may be advanced to the PGY-2 level based on ACGME Milestones assessments at the ACGME-accredited program. This provision applies only to entry into residency in those specialties for which an initial clinical year is not required for entry. (Core)

III.A.1.c) A Review Committee may grant the exception to the eligibility requirements specified in Section III.A.2.b) for residency
programs that require completion of a prerequisite residency program prior to admission. (Core)

III.A.1.d) Review Committees will grant no other exceptions to these eligibility requirements for residency education. (Core)

III.A.2. Eligibility Requirements – Fellowship Programs

All required clinical education for entry into ACGME-accredited fellowship programs must be completed in an ACGME-accredited residency program, or in an RCPSC-accredited or CFPC-accredited residency program located in Canada. (Core)

With the exception of adolescent medicine and pediatric emergency medicine subspecialty programs, prerequisite training for entry into a pediatric subspecialty program must include the satisfactory completion of either an ACGME-accredited pediatrics or internal medicine-pediatrics combined residency, or an RCPSC-accredited pediatrics or internal medicine-pediatrics combined residency program located in Canada. (Core)

Prerequisite training for entry into an adolescent medicine subspecialty program must include the satisfactory completion of either an ACGME-accredited family medicine, internal medicine, pediatrics or combined internal medicine-pediatrics residency, a CFPC-accredited family medicine program located in Canada, or an RCPSC-accredited internal medicine or pediatrics residency program located in Canada. (Core)

Prerequisite training for entry into a pediatric emergency medicine subspecialty program must include the satisfactory completion of either an ACGME-accredited emergency medicine, pediatrics or combined internal medicine-pediatrics residency, or an RCPSC-accredited emergency medicine or pediatrics residency program located in Canada. (Core)

III.A.2.a) Fellowship programs must receive verification of each entering fellow’s level of competency in the required field using ACGME or CanMEDS Milestones assessments from the core residency program. (Core)

III.A.2.b) Fellow Eligibility Exception

A Review Committee may grant the following exception to the fellowship eligibility requirements:

An ACGME-accredited fellowship program may accept an exceptionally qualified applicant**, who does not satisfy the eligibility requirements listed in Sections III.A.2. and III.A.2.a), but who does meet all of the following additional qualifications and conditions: (Core)

III.A.2.b).(1) Assessment by the program director and fellowship
III.A.2.b).(2) Review and approval of the applicant’s exceptional qualifications by the GMEC or a subcommittee of the GMEC; and

III.A.2.b).(3) Satisfactory completion of the United States Medical Licensing Examination (USMLE) Steps 1, 2, and, if the applicant is eligible, 3, and;

III.A.2.b).(4) For an international graduate, verification of Educational Commission for Foreign Medical Graduates (ECFMG) certification; and,

III.A.2.b).(5) Applicants accepted by this exception must complete fellowship Milestones evaluation (for the purposes of establishment of baseline performance by the Clinical Competency Committee), conducted by the receiving fellowship program within six weeks of matriculation. This evaluation may be waived for an applicant who has completed an ACGME International-accredited residency based on the applicant’s Milestones evaluation conducted at the conclusion of the residency program.

III.A.2.b).(5).(a) If the trainee does not meet the expected level of Milestones competency following entry into the fellowship program, the trainee must undergo a period of remediation, overseen by the Clinical Competency Committee and monitored by the GMEC or a subcommittee of the GMEC. This period of remediation must not count toward time in fellowship training.

** An exceptionally qualified applicant has (1) completed a non-ACGME-accredited residency program in the core specialty, and (2) demonstrated clinical excellence, in comparison to peers, throughout training. Additional evidence of exceptional qualifications is required, which may include one of the following: (a) participation in additional clinical or research training in the specialty or subspecialty; (b) demonstrated scholarship in the specialty or subspecialty; (c) demonstrated leadership during or after residency training; (d) completion of an ACGME-International-accredited residency program.

III.A.2.c) The Review Committee for Pediatrics does allow exceptions to the Eligibility Requirements for Fellowship Programs in
Section III.A.2. (Core)

III.A.2.d) Applicants who do not meet the eligibility criteria in Program Requirement III.A.2. must be advised in writing by the program director to consult the ABP or other appropriate board regarding their eligibility for subspecialty certification. (Core)

III.B. Number of Fellows

The program’s educational resources must be adequate to support the number of fellows appointed to the program. (Core)

III.B.1. The program director may not appoint more fellows than approved by the Review Committee, unless otherwise stated in the specialty-specific requirements. (Core)

III.C. Fellow Transfers

III.C.1. Before accepting a fellow who is transferring from another program, the program director must obtain written or electronic verification of previous educational experiences and a summative competency-based performance evaluation of the transferring fellow. (Detail)

III.C.2. A program director must provide timely verification of fellowship education and summative performance evaluations for fellows who may leave the program prior to completion. (Detail)

III.D. Appointment of Fellows and Other Learners

The presence of other learners (including, but not limited to, residents from other specialties, subspecialty fellows, PhD students, and nurse practitioners) in the program must not interfere with the appointed fellows’ education. (Core)

III.D.1. The program director must report the presence of other learners to the DIO and GMEC in accordance with sponsoring institution guidelines. (Detail)

IV. Educational Program

IV.A. The curriculum must contain the following educational components:

IV.A.1. Overall educational goals for the program, which the program must make available to fellows and faculty; (Core)

IV.A.2. Competency-based goals and objectives for each assignment at each educational level, which the program must distribute to fellows and faculty at least annually, in either written or electronic form; (Core)

IV.A.2.a) Each educational unit or major professional activity must have a curriculum associated with it. (Core)
IV.A.2.b) The competency-based goals and objectives, educational strategies, and assessment methods must align with intended outcomes of those activities. (Core)

IV.A.2.c) The curriculum should incorporate the competencies into the context of the major professional activities for which fellows should be entrusted. (Detail)

IV.A.3. Regularly scheduled didactic sessions; (Core)

IV.A.4. Delineation of fellow responsibilities for patient care, progressive responsibility for patient management, and supervision of fellows over the continuum of the program; and, (Core)

IV.A.5. ACGME Competencies

The program must integrate the following ACGME competencies into the curriculum: (Core)

IV.A.5.a) Patient Care and Procedural Skills

IV.A.5.a).(1) 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: (Outcome)

IV.A.5.a).(1).(a) must develop competence in the necessary clinical skills used in the subspecialty and provide consultation, including the ability to perform a history and physical examination, make informed diagnostic and therapeutic decisions that result in optimal clinical judgement, develop and carry out management plans, counsel patients and families, and use information technology to optimize patient care; (Outcome)

IV.A.5.a).(1).(b) must demonstrate the ability to provide transfer of care that ensures seamless transitions; (Outcome)

IV.A.5.a).(1).(c) must demonstrate the ability to develop and carry out management plans; and, (Outcome)

IV.A.5.a).(1).(d) must demonstrate the ability to provide appropriate role modeling and supervision. (Outcome)

IV.A.5.a).(2) Fellows must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. Fellows: (Outcome)
IV.A.5.a).(2).(a) must demonstrate competence in performing and interpreting the results of laboratory tests and diagnostic procedures for use in patient care. (Outcome)

IV.A.5.a).(2).(a).(i) Fellows must acquire the necessary procedural skills and develop an understanding of their indications, risks, and limitations. (Outcome)

IV.A.5.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: (Outcome)

IV.A.5.b).(1) must have a working understanding 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 the achievement of proficiency in teaching. (Outcome)

IV.A.5.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 life-long learning. (Outcome)

Fellows are expected to develop skills and habits to be able to meet the following goals:

IV.A.5.c).(1) identify strengths, deficiencies, and limits in one’s knowledge and expertise; (Outcome)

IV.A.5.c).(2) set learning and improvement goals; (Outcome)

IV.A.5.c).(3) identify and perform appropriate learning activities; (Outcome)

IV.A.5.c).(4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; (Outcome)

IV.A.5.c).(5) incorporate formative evaluation feedback into daily practice; (Outcome)
IV.A.5.c).(6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; (Outcome)

IV.A.5.c).(7) use information technology to optimize learning; (Outcome)

IV.A.5.c).(8) participate in the education of patients, families, students, fellows and other health professionals; and, (Outcome)

IV.A.5.c).(9) self-evaluate performance and incorporate assessments provided by faculty members, peers, and patients. (Outcome)

IV.A.5.c).(9).(a) This should be a component of each fellow's individual learning plan. (Detail)

IV.A.5.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. (Outcome)

Fellows are expected to:

IV.A.5.d).(1) communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; (Outcome)

IV.A.5.d).(2) communicate effectively with physicians, other health professionals, and health related agencies; (Outcome)

IV.A.5.d).(3) work effectively as a member or leader of a health care team or other professional group; (Outcome)

IV.A.5.d).(4) act in a consultative role to other physicians and health professionals; (Outcome)

IV.A.5.d).(5) maintain comprehensive, timely, and legible medical records, if applicable; and, (Outcome)

IV.A.5.d).(6) teach proficiently based on knowledge of the principles of adult learning, including participating effectively in curriculum development, delivery of information, provision of feedback to learners, and assessment of educational outcomes. (Outcome)

IV.A.5.d).(6).(a) Graduates should be effective in teaching both individuals and groups of learners in clinical settings, classrooms, lectures, and seminars, as
well as by electronic and print modalities. (Outcome)

IV.A.5.e)  Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. (Outcome)

Fellows are expected to demonstrate:

IV.A.5.e).(1) compassion, integrity, and respect for others; (Outcome)

IV.A.5.e).(2) responsiveness to patient needs that supersedes self-interest; (Outcome)

IV.A.5.e).(3) respect for patient privacy and autonomy; (Outcome)

IV.A.5.e).(4) accountability to patients, society and the profession; (Outcome)

IV.A.5.e).(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation; (Outcome)

IV.A.5.e).(6) trustworthiness that makes colleagues feel secure when the fellow is responsible for the care of patients; (Outcome)

IV.A.5.e).(7) leadership skills that enhance team function, the learning environment, and/or the health care delivery system/environment with the ultimate intent of improving care of patients; and, (Outcome)

IV.A.5.e).(8) the capacity to recognize that ambiguity is part of clinical medicine and to respond by utilizing appropriate resources in dealing with uncertainty. (Outcome)

IV.A.5.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. (Outcome)

Fellows are expected to:

IV.A.5.f).(1) work effectively in various health care delivery settings and systems relevant to their clinical specialty; (Outcome)
IV.A.5.f).(2) coordinate patient care within the health care system relevant to their clinical specialty; (Outcome)

IV.A.5.f).(3) incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate; (Outcome)

IV.A.5.f).(4) advocate for quality patient care and optimal patient care systems; (Outcome)

IV.A.5.f).(5) work in interprofessional teams to enhance patient safety and improve patient care quality; (Outcome)

IV.A.5.f).(6) participate in identifying system errors and implementing potential systems solutions; (Outcome)

IV.A.5.f).(7) participate in the administrative aspects of the subspecialty, including:

IV.A.5.f).(7).(a) knowledge of regional and national access to care, resources, workforce, and financing appropriate to the subspecialty through guided reading and discussion; and, (Outcome)

IV.A.5.f).(7).(b) organization and management of a subspecialty service within one’s own delivery system by engaging fellows as active participants in discussions (e.g., through scheduled division activities/meetings) that involve:

IV.A.5.f).(7).(b).(i) staffing a service or unit, including managing personnel and making and adhering to a schedule; (Outcome)

IV.A.5.f).(7).(b).(ii) drafting policies and procedures, leading interdisciplinary meetings and conferences, and providing in-service teaching sessions; (Outcome)

IV.A.5.f).(7).(b).(iii) proposals for hospital and community resources, including clinical, laboratory, and research space, equipment, and technology necessary for the program to provide state-of-the-art care while advancing knowledge in the field; (Outcome)

IV.A.5.f).(7).(b).(iv) business planning and practice management, including billing and coding, personnel management policies, and professional liability; (Outcome)
IV.A.5.f).(7).(b).(v) division or program development, organization, and maintenance; and, (Outcome)

IV.A.5.f).(7).(b).(vi) collaboration within (e.g., with pathology, radiology, or surgery) and beyond (e.g., participation in national specialty societies, cooperative care groups, or multi-center research) the institution as appropriate to the subspecialty. (Outcome)

IV.A.6. Curriculum Organization and Fellow Experiences

IV.A.6.a) Fellows must have a formally-structured educational program in the clinical and basic sciences related to the subspecialty. (Core)

IV.A.6.a).(1) The program must utilize didactic and practical experience. (Core)

IV.A.6.a).(2) Subspecialty conferences must occur regularly, and must involve active participation by the fellows in planning and implementation. (Core)

IV.A.6.a).(3) Fellow education must include instruction in basic and fundamental disciplines, as appropriate to the subspecialty, such as anatomy, physiology, biochemistry, embryology, pathology, microbiology, pharmacology, immunology, genetics, and nutrition/metabolism, (Core)

IV.A.6.a).(4) Fellow education must include instruction in pathophysiology of disease, reviews of recent advances in clinical medicine and biomedical research, and conferences dealing with complications and death, and the scientific, ethical, and legal implications of confidentiality and informed consent. (Core)

IV.A.6.a).(5) Bioethics must be addressed in the formal curriculum. (Core)

IV.A.6.a).(5).(a) This should include attention to physician-patient, physician-family, physician-physician/allied health professional, and physician-society relationships. (Detail)

IV.A.6.a).(6) Fellow education must include instruction in the economics of health care and current health care management issues, such as cost-effective patient care, practice management, preventive care, quality improvement, resource allocation, and clinical outcomes. (Core)

IV.A.6.b) A structured curriculum must be provided to allow fellows to participate and be assessed in the following activities:
IV.A.6.b).(1) provide for and obtain consultation from other health care providers caring for children; (Core)

IV.A.6.b).(2) contribute to the fiscally sound and ethical management of a practice (e.g., through billing, scheduling, coding, and record-keeping practices); (Core)

IV.A.6.b).(3) apply public health principles and improvement methodology to improve care for populations, communities, and systems; (Core)

IV.A.6.b).(4) lead an interprofessional health care team; (Core)

IV.A.6.b).(5) facilitate hand-overs to another health care provider; and, (Core)

IV.A.6.b).(6) lead within the subspecialty profession. (Core)

IV.A.6.c) The program must provide fellows with instruction and opportunities to interact effectively with patients, patients’ families, professional associates, and others in carrying out their responsibilities as physicians in the subspecialty. (Core)

IV.A.6.c).(1) Fellows must learn to create and sustain a therapeutic relationship with patients, and to work effectively as members or leaders of patient care teams or other groups in which they participate as a researcher, educator, health advocate, or manager. (Core)

IV.A.6.d) The fellowship program and residency program must complement and enhance one another. (Core)

IV.B. Fellows’ Scholarly Activities

IV.B.1. The curriculum must advance fellows’ knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care. (Core)

IV.B.1.a) Where appropriate, the core curriculum in scholarly activity should be a collaborative effort involving all of the pediatric subspecialty programs in the institution. (Detail)

IV.B.2. Fellows should participate in scholarly activity. (Core)

IV.B.2.a) Each fellow must design and conduct a scholarly project in his or her subspecialty area with the guidance of the fellowship director and a designated mentor. (Core)

IV.B.2.b) The program must provide a scholarship oversight committee for each fellow to oversee and evaluate his or her progress as related to scholarly activity. (Core)
IV.B.2.b). (1) Where applicable, the process of establishing fellow scholarship oversight committees should be a collaborative effort involving other pediatric subspecialty programs at the institution. (Detail)

IV.B.2.c) The scholarly experience must begin in the first year and continue for the entire period of training. (Core)

IV.B.2.c). (1) There must be adequate time for each fellow to allow for the development of requisite skills, project completion, and presentation of results to the scholarship oversight committee. (Core)

IV.B.3. The sponsoring institution and program should allocate adequate educational resources to facilitate fellow involvement in scholarly activities. (Detail)

V. Evaluation

V.A. Fellow Evaluation

V.A.1. The program director must appoint the Clinical Competency Committee. (Core)

V.A.1.a) At a minimum the Clinical Competency Committee must be composed of three members of the program faculty. (Core)

V.A.1.a). (1) The program director may appoint additional members of the Clinical Competency Committee.

V.A.1.a). (1). (a) These additional members must be physician faculty members from the same program or other programs, or other health professionals who have extensive contact and experience with the program’s fellows in patient care and other health care settings. (Core)

V.A.1.a). (1). (b) Chief residents who have completed core residency programs in their specialty and are eligible for specialty board certification may be members of the Clinical Competency Committee. (Core)

V.A.1.b) There must be a written description of the responsibilities of the Clinical Competency Committee. (Core)

V.A.1.b). (1) The Clinical Competency Committee should:

V.A.1.b). (1). (a) review all fellow evaluations semi-annually; (Core)
prepare and ensure the reporting of Milestones evaluations of each fellow semi-annually to ACGME; and, (Core)

advise the program director regarding fellow progress, including promotion, remediation, and dismissal. (Detail)

**V.A.2. Formative Evaluation**

**V.A.2.a)** The faculty must evaluate fellow performance in a timely manner during each rotation or similar educational assignment, and document this evaluation at completion of the assignment. (Core)

**V.A.2.b) The program must:**

**V.A.2.b).(1)** provide objective assessments of competence in patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice based on the specialty-specific Milestones; (Core)

**V.A.2.b).(2)** use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff); (Detail)

**V.A.2.b).(3)** document progressive fellow performance improvement appropriate to educational level; and, (Core)

**V.A.2.b).(4)** provide each fellow with documented semiannual evaluation of performance with feedback. (Core)

**V.A.2.c)** The evaluations of fellow performance must be accessible for review by the fellow, in accordance with institutional policy. (Detail)

**V.A.3. Summative Evaluation**

**V.A.3.a)** The specialty-specific Milestones must be used as one of the tools to ensure fellows are able to practice core professional activities without supervision upon completion of the program. (Core)

**V.A.3.b)** The program director must provide a summative evaluation for each fellow upon completion of the program. (Core)

This evaluation must:

**V.A.3.b).(1)** become part of the fellow’s permanent record
maintained by the institution, and must be accessible for review by the fellow in accordance with institutional policy; (Detail)

V.A.3.b).(2) document the fellow’s performance during the final period of education; and, (Detail)

V.A.3.b).(3) verify that the fellow has demonstrated sufficient competence to enter practice without direct supervision. (Detail)

V.B. Faculty Evaluation

V.B.1. At least annually, the program must evaluate faculty performance as it relates to the educational program. (Core)

V.B.2. These evaluations should include a review of the faculty’s clinical teaching abilities, commitment to the educational program, clinical knowledge, professionalism, and scholarly activities. (Detail)

V.B.3. This evaluation must include at least annual written confidential evaluations by the fellows. (Detail)

V.B.4. Faculty members must receive feedback from these evaluations. (Core)

V.C. Program Evaluation and Improvement

V.C.1. The program director must appoint the Program Evaluation Committee (PEC). (Core)

V.C.1.a) The Program Evaluation Committee:

V.C.1.a).(1) must be composed of at least two program faculty members and should include at least one fellow; (Core)

V.C.1.a).(2) must have a written description of its responsibilities; and, (Core)

V.C.1.a).(3) should participate actively in:

V.C.1.a).(3).a) planning, developing, implementing, and evaluating educational activities of the program; (Detail)

V.C.1.a).(3).b) reviewing and making recommendations for revision of competency-based curriculum goals and objectives; (Detail)

V.C.1.a).(3).c) addressing areas of non-compliance with ACGME standards; and, (Detail)
V.C.1.a).(3).(d) reviewing the program annually using evaluations of faculty, fellows, and others, as specified below. (Detail)

V.C.2. The program, through the PEC, must document formal, systematic evaluation of the curriculum at least annually, and is responsible for rendering a written, annual program evaluation. (Core)

The program must monitor and track each of the following areas:

V.C.2.a) fellow performance; (Core)
V.C.2.b) faculty development; (Core)
V.C.2.c) graduate performance, including performance of program graduates on the certification examination; (Core)
V.C.2.d) program quality; and, (Core)
V.C.2.d).(1) Fellows and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and (Detail)
V.C.2.d).(2) The program must use the results of fellows’ and faculty members’ assessments of the program together with other program evaluation results to improve the program. (Detail)
V.C.2.e) progress on the previous year’s action plan(s). (Core)

V.C.3. The PEC must prepare a written plan of action to document initiatives to improve performance in one or more of the areas listed in section V.C.2., as well as delineate how they will be measured and monitored. (Core)

V.C.3.a) The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes. (Detail)

V.C.4. At least 75 percent of the program’s graduates from the preceding six years who take the certifying examination for the first time must pass. (Outcome)

V.C.5. The same evaluation mechanisms used in the related core pediatrics residency program should be adapted for and implemented in all of the pediatric subspecialty programs that function with it. (Detail)

VI. The Learning and Working Environment

Fellowship education must occur in the context of a learning and working environment that emphasizes the following principles:
• Excellence in the safety and quality of care rendered to patients by fellows today

• Excellence in the safety and quality of care rendered to patients by today’s fellows in their future practice

• Excellence in professionalism through faculty modeling of:
  o the effacement of self-interest in a humanistic environment that supports the professional development of physicians
  o the joy of curiosity, problem-solving, intellectual rigor, and discovery

• Commitment to the well-being of the students, residents/fellows, faculty members, and all members of the health care team

VI.A. Patient Safety, Quality Improvement, Supervision, and Accountability

VI.A.1. Patient Safety and Quality Improvement

All physicians share responsibility for promoting patient safety and enhancing quality of patient care. Graduate medical education must prepare fellows to provide the highest level of clinical care with continuous focus on the safety, individual needs, and humanity of their patients. It is the right of each patient to be cared for by fellows who are appropriately supervised; possess the requisite knowledge, skills, and abilities; understand the limits of their knowledge and experience; and seek assistance as required to provide optimal patient care.

Fellows must demonstrate the ability to analyze the care they provide, understand their roles within health care teams, and play an active role in system improvement processes. Graduating fellows will apply these skills to critique their future unsupervised practice and effect quality improvement measures.

It is necessary for fellows and faculty members to consistently work in a well-coordinated manner with other health care professionals to achieve organizational patient safety goals.

VI.A.1.a) Patient Safety

VI.A.1.a).(1) Culture of Safety

A culture of safety requires continuous identification of vulnerabilities and a willingness to transparently deal with them. An effective organization has formal mechanisms to assess the knowledge, skills, and attitudes of its personnel toward safety in order to identify areas for improvement.
VI.A.1.a).(1).(a) The program, its faculty, residents, and fellows must actively participate in patient safety systems and contribute to a culture of safety. (Core)

VI.A.1.a).(1).(b) The program must have a structure that promotes safe, interprofessional, team-based care. (Core)

VI.A.1.a).(2) Education on Patient Safety

Programs must provide formal educational activities that promote patient safety-related goals, tools, and techniques. (Core)

VI.A.1.a).(3) Patient Safety Events

Reporting, investigation, and follow-up of adverse events, near misses, and unsafe conditions are pivotal mechanisms for improving patient safety, and are essential for the success of any patient safety program. Feedback and experiential learning are essential to developing true competence in the ability to identify causes and institute sustainable systems-based changes to ameliorate patient safety vulnerabilities.

VI.A.1.a).(3).(a) Residents, fellows, faculty members, and other clinical staff members must:

VI.A.1.a).(3).(a).(i) know their responsibilities in reporting patient safety events at the clinical site; (Core)

VI.A.1.a).(3).(a).(ii) know how to report patient safety events, including near misses, at the clinical site; and, (Core)

VI.A.1.a).(3).(a).(iii) be provided with summary information of their institution’s patient safety reports. (Core)

VI.A.1.a).(3).(b) Fellows must participate as team members in real and/or simulated interprofessional clinical patient safety activities, such as root cause analyses or other activities that include analysis, as well as formulation and implementation of actions. (Core)
VI.A.1.a).(4) Fellow Education and Experience in Disclosure of Adverse Events

Patient-centered care requires patients, and when appropriate families, to be apprised of clinical situations that affect them, including adverse events. This is an important skill for faculty physicians to model, and for fellows to develop and apply.

VI.A.1.a).(4).(a) All fellows must receive training in how to disclose adverse events to patients and families. *(Core)*

VI.A.1.a).(4).(b) Fellows should have the opportunity to participate in the disclosure of patient safety events, real or simulated. *(Detail)*

VI.A.1.b) Quality Improvement

VI.A.1.b).(1) Education in Quality Improvement

A cohesive model of health care includes quality-related goals, tools, and techniques that are necessary in order for health care professionals to achieve quality improvement goals.

VI.A.1.b).(1).(a) Fellows must receive training and experience in quality improvement processes, including an understanding of health care disparities. *(Core)*

VI.A.1.b).(2) Quality Metrics

Access to data is essential to prioritizing activities for care improvement and evaluating success of improvement efforts.

VI.A.1.b).(2).(a) Fellows and faculty members must receive data on quality metrics and benchmarks related to their patient populations. *(Core)*

VI.A.1.b).(3) Engagement in Quality Improvement Activities

Experiential learning is essential to developing the ability to identify and institute sustainable systems-based changes to improve patient care.

VI.A.1.b).(3).(a) Fellows must have the opportunity to participate in interprofessional quality improvement activities. *(Core)*
VI.A.1.b).(3).(a).(i) This should include activities aimed at reducing health care disparities. (Detail)

VI.A.2. Supervision and Accountability

VI.A.2.a) Although the attending physician is ultimately responsible for the care of the patient, every physician shares in the responsibility and accountability for their efforts in the provision of care. Effective programs, in partnership with their Sponsoring Institutions, define, widely communicate, and monitor a structured chain of responsibility and accountability as it relates to the supervision of all patient care.

Supervision in the setting of graduate medical education provides safe and effective care to patients; ensures each fellow’s development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishes a foundation for continued professional growth.

VI.A.2.a).(1) Each patient must have an identifiable and appropriately-credentialed and privileged attending physician (or licensed independent practitioner as specified by the applicable Review Committee) who is responsible and accountable for the patient’s care. (Core)

VI.A.2.a).(1).(a) This information must be available to fellows, faculty members, other members of the health care team, and patients. (Core)

VI.A.2.a).(1).(b) Fellows and faculty members must inform each patient of their respective roles in that patient’s care when providing direct patient care. (Core)

VI.A.2.b) Supervision may be exercised through a variety of methods. For many aspects of patient care, the supervising physician may be a more advanced fellow. Other portions of care provided by the fellow can be adequately supervised by the immediate availability of the supervising faculty member or fellow physician, either on site or by means of telephonic and/or electronic modalities. Some activities require the physical presence of the supervising faculty member. In some circumstances, supervision may include post-hoc review of fellow-delivered care with feedback.

VI.A.2.b).(1) The program must demonstrate that the appropriate level of supervision in place for all fellows is based on each fellow’s level of training and ability, as well as patient complexity and acuity. Supervision may be
exercised through a variety of methods, as appropriate to the situation. (Core)

VI.A.2.c) Levels of Supervision

To promote oversight of fellow supervision while providing for graded authority and responsibility, the program must use the following classification of supervision: (Core)

VI.A.2.c).(1) Direct Supervision – the supervising physician is physically present with the fellow and patient. (Core)

VI.A.2.c).(2) Indirect Supervision:

VI.A.2.c).(2).(a) with Direct Supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision. (Core)

VI.A.2.c).(2).(b) with Direct Supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision. (Core)

VI.A.2.c).(3) Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered. (Core)

VI.A.2.d) The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each fellow must be assigned by the program director and faculty members. (Core)

VI.A.2.d).(1) The program director must evaluate each fellow’s abilities based on specific criteria, guided by the Milestones. (Core)

VI.A.2.d).(2) Faculty members functioning as supervising physicians must delegate portions of care to fellows based on the needs of the patient and the skills of each fellow. (Core)

VI.A.2.d).(3) Fellows should serve in a supervisory role to residents or junior fellows in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow. (Detail)
VI.A.2.e) Programs must set guidelines for circumstances and events in which fellows must communicate with the supervising faculty member(s). (Core)

VI.A.2.e).(1) Each fellow must know the limits of their scope of authority, and the circumstances under which the fellow is permitted to act with conditional independence. (Outcome)

VI.A.2.f) Faculty supervision assignments must be of sufficient duration to assess the knowledge and skills of each fellow and to delegate to the fellow the appropriate level of patient care authority and responsibility. (Core)

VI.B. Professionalism

VI.B.1. Programs, in partnership with their Sponsoring Institutions, must educate fellows and faculty members concerning the professional responsibilities of physicians, including their obligation to be appropriately rested and fit to provide the care required by their patients. (Core)

VI.B.2. The learning objectives of the program must:

VI.B.2.a) be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; (Core)

VI.B.2.b) be accomplished without excessive reliance on fellows to fulfill non-physician obligations; and, (Core)

VI.B.2.c) ensure manageable patient care responsibilities. (Core)

VI.B.3. The program director, in partnership with the Sponsoring Institution, must provide a culture of professionalism that supports patient safety and personal responsibility. (Core)

VI.B.4. Fellows and faculty members must demonstrate an understanding of their personal role in the:

VI.B.4.a) provision of patient- and family-centered care; (Outcome)

VI.B.4.b) safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and adverse events; (Outcome)

VI.B.4.c) assurance of their fitness for work, including: (Outcome)

VI.B.4.c).(1) management of their time before, during, and after clinical assignments; and, (Outcome)
VI.B.4.c). recognition of impairment, including from illness, fatigue, and substance use, in themselves, their peers, and other members of the health care team. (Outcome)

VI.B.4.d) commitment to lifelong learning; (Outcome)

VI.B.4.e) monitoring of their patient care performance improvement indicators; and; (Outcome)

VI.B.4.f) accurate reporting of clinical and educational work hours, patient outcomes, and clinical experience data. (Outcome)

VI.B.5. All fellows and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. This includes the recognition that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider. (Outcome)

VI.B.6. Programs must provide a professional, respectful, and civil environment that is free from mistreatment, abuse, or coercion of students, residents/fellows, faculty, and staff. Programs, in partnership with their Sponsoring institutions, should have a process for education of fellows and faculty regarding unprofessional behavior and a confidential process for reporting, investigating, and addressing such concerns. (Core)

VI.C. Well-Being

In the current health care environment, fellows and faculty members are at increased risk for burnout and depression. Psychological, emotional, and physical well-being are critical in the development of the competent, caring, and resilient physician. Self-care is an important component of professionalism; it is also a skill that must be learned and nurtured in the context of other aspects of fellowship training. Programs, in partnership with their Sponsoring Institutions, have the same responsibility to address well-being as they do to evaluate other aspects of fellow competence.

VI.C.1. This responsibility must include:

VI.C.1.a) efforts to enhance the meaning that each fellow finds in the experience of being a physician, including protecting time with patients, minimizing non-physician obligations, providing administrative support, promoting progressive autonomy and flexibility, and enhancing professional relationships; (Core)

VI.C.1.b) attention to scheduling, work intensity, and work compression that impacts fellow well-being; (Core)

VI.C.1.c) evaluating workplace safety data and addressing the safety of fellows and faculty members; (Core)
VI.C.1.d) policies and programs that encourage optimal fellow and faculty member well-being; and, (Core)

VI.C.1.d).(1) Fellows must be given the opportunity to attend medical, mental health, and dental care appointments, including those scheduled during their working hours. (Core)

VI.C.1.e) attention to fellow and faculty member burnout, depression, and substance abuse. The program, in partnership with its Sponsoring Institution, must educate faculty members and fellows in identification of the symptoms of burnout, depression, and substance abuse, including means to assist those who experience these conditions. Fellows and faculty members must also be educated to recognize those symptoms in themselves and how to seek appropriate care. The program, in partnership with its Sponsoring Institution, must: (Core)

VI.C.1.e).(1) encourage fellows and faculty members to alert the program director or other designated personnel or programs when they are concerned that another resident, fellow, or faculty member may be displaying signs of burnout, depression, substance abuse, suicidal ideation, or potential for violence; (Core)

VI.C.1.e).(2) provide access to appropriate tools for self-screening; and, (Core)

VI.C.1.e).(3) provide access to confidential, affordable mental health assessment, counseling, and treatment, including access to urgent and emergent care 24 hours a day, seven days a week. (Core)

VI.C.2. There are circumstances in which fellows may be unable to attend work, including but not limited to fatigue, illness, and family emergencies. Each program must have policies and procedures in place that ensure coverage of patient care in the event that a fellow may be unable to perform their patient care responsibilities. These policies must be implemented without fear of negative consequences for the fellow who is unable to provide the clinical work. (Core)

VI.D. Fatigue Mitigation

VI.D.1. Programs must:

VI.D.1.a) educate all faculty members and fellows to recognize the signs of fatigue and sleep deprivation; (Core)
VI.D.1.b) educate all faculty members and fellows in alertness management and fatigue mitigation processes; and, (Core)

VI.D.1.c) encourage fellows to use fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning. (Detail)

VI.D.2. Each program must ensure continuity of patient care, consistent with the program’s policies and procedures referenced in VI.C.2, in the event that a fellow may be unable to perform their patient care responsibilities due to excessive fatigue. (Core)

VI.D.3. The program, in partnership with its Sponsoring Institution, must ensure adequate sleep facilities and safe transportation options for fellows who may be too fatigued to safely return home. (Core)

VI.E. Clinical Responsibilities, Teamwork, and Transitions of Care

VI.E.1. Clinical Responsibilities

The clinical responsibilities for each fellow must be based on PGY level, patient safety, fellow ability, severity and complexity of patient illness/condition, and available support services. (Core)

VI.E.1.a) The program director must have the authority and responsibility to set appropriate clinical responsibilities (i.e., patient caps) for each fellow based on the PGY-level, patient safety, fellow education, severity and complexity of patient illness/condition, and available support services. (Core)

VI.E.1.a).(1) This must include progressive clinical, technical, and consultative experiences that will enable the fellows to develop expertise as a consultant in the subspecialty. (Core)

VI.E.1.a).(2) Lines of responsibility for the pediatric residents and the fellows must be clearly defined. (Core)

VI.E.1.b) The program director must ensure that fellows maintain an appropriate patient load. Insufficient patient experiences do not meet educational needs; an excessive patient load suggests an inappropriate reliance on fellows for service obligations, which may jeopardize the educational experience. (Core)

VI.E.2. Teamwork

Fellows must care for patients in an environment that maximizes communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty and larger health system. (Core)

VI.E.2.a) Interprofessional team members should participate in the
VI.E.3. Transitions of Care

VI.E.3.a) Programs must design clinical assignments to optimize transitions in patient care, including their safety, frequency, and structure. (Core)

VI.E.3.b) Programs, in partnership with their Sponsoring Institutions, must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety. (Core)

VI.E.3.c) Programs must ensure that fellows are competent in communicating with team members in the hand-over process. (Outcome)

VI.E.3.d) Programs and clinical sites must maintain and communicate schedules of attending physicians and fellows currently responsible for care. (Core)

VI.E.3.e) Each program must ensure continuity of patient care, consistent with the program’s policies and procedures referenced in VI.C.2, in the event that a fellow may be unable to perform their patient care responsibilities due to excessive fatigue or illness, or family emergency. (Core)

VI.F. Clinical Experience and Education

Programs, in partnership with their Sponsoring Institutions, must design an effective program structure that is configured to provide fellows with educational and clinical experience opportunities, as well as reasonable opportunities for rest and personal activities.

VI.F.1. Maximum Hours of Clinical and Educational Work per Week

Clinical and educational work hours must be limited to no more than 80 hours per week, averaged over a four-week period, inclusive of all in-house clinical and educational activities, clinical work done from home, and all moonlighting. (Core)

VI.F.2. Mandatory Time Free of Clinical Work and Education

VI.F.2.a) The program must design an effective program structure that is configured to provide fellows with educational opportunities, as well as reasonable opportunities for rest and personal well-being. (Core)

VI.F.2.b) Fellows should have eight hours off between scheduled clinical work and education periods. (Detail)
VI.F.2.b).(1) There may be circumstances when fellows choose to stay to care for their patients or return to the hospital with fewer than eight hours free of clinical experience and education. This must occur within the context of the 80-hour and the one-day-off-in-seven requirements.  

VI.F.2.c) Fellows must have at least 14 hours free of clinical work and education after 24 hours of in-house call.  

VI.F.2.d) Fellows must be scheduled for a minimum of one day in seven free of clinical work and required education (when averaged over four weeks). At-home call cannot be assigned on these free days.  

VI.F.3. Maximum Clinical Work and Education Period Length  

VI.F.3.a) Clinical and educational work periods for fellows must not exceed 24 hours of continuous scheduled clinical assignments.  

VI.F.3.a).(1) Up to four hours of additional time may be used for activities related to patient safety, such as providing effective transitions of care, and/or fellow education.  

VI.F.3.a).(1).(a) Additional patient care responsibilities must not be assigned to a fellow during this time.  

VI.F.4. Clinical and Educational Work Hour Exceptions  

VI.F.4.a) In rare circumstances, after handing off all other responsibilities, a fellow, on their own initiative, may elect to remain or return to the clinical site in the following circumstances:  

VI.F.4.a).(1) to continue to provide care to a single severely ill or unstable patient;  

VI.F.4.a).(2) humanistic attention to the needs of a patient or family; or,  

VI.F.4.a).(3) to attend unique educational events.  

VI.F.4.b) These additional hours of care or education will be counted toward the 80-hour weekly limit.  

VI.F.4.c) A Review Committee may grant rotation-specific exceptions for up to 10 percent or a maximum of 88 clinical and educational work hours to individual programs based on a sound educational rationale.
The Review Committee for Pediatrics will not consider requests for exceptions to the 80-hour limit to the fellows’ work week.

VI.F.4.c).(1) In preparing a request for an exception, the program director must follow the clinical and educational work hour exception policy from the ACGME Manual of Policies and Procedures. (Core)

VI.F.4.c).(2) Prior to submitting the request to the Review Committee, the program director must obtain approval from the Sponsoring Institution’s GMEC and DIO. (Core)

VI.F.5. Moonlighting

VI.F.5.a) Moonlighting must not interfere with the ability of the fellow to achieve the goals and objectives of the educational program, and must not interfere with the fellow’s fitness for work nor compromise patient safety. (Core)

VI.F.5.b) Time spent by fellows in internal and external moonlighting (as defined in the ACGME Glossary of Terms) must be counted toward the 80-hour maximum weekly limit. (Core)

VI.F.6. In-House Night Float

Night float must occur within the context of the 80-hour and one-day-off-in-seven requirements. (Core)

VI.F.6.a) Fellows should not have more than four total weeks of night float per year, and night float should not be scheduled in consecutive weeks. (Detail)

VI.F.7. Maximum In-House On-Call Frequency

Fellows must be scheduled for in-house call no more frequently than every third night (when averaged over a four-week period). (Core)

VI.F.8. At-Home Call

VI.F.8.a) Time spent on patient care activities by fellows on at-home call must count toward the 80-hour maximum weekly limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one day in seven free of clinical work and education, when averaged over four weeks. (Core)

VI.F.8.a).(1) At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each fellow. (Core)
VI.F.8.b) Fellows are permitted to return to the hospital while on at-home call to provide direct care for new or established patients. These hours of inpatient patient care must be included in the 80-hour maximum weekly limit. (Detail)
ACGME Program Requirements for Graduate Medical Education in Pediatric Cardiology

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ACGME Program Requirements for Graduate Medical Education
in Pediatric Cardiology

Introduction

Int.A. Scope of Educational Experience

Int.A.1. Pediatric cardiology programs must provide fellows with an understanding of normal and abnormal cardiovascular conditions, with a focus on the pathophysiologic basis of cardiovascular disease, and prepare them to provide optimal care and consultation for pediatric patients with cardiovascular disease. *(Core)*

Int.A.2. The program must include progressive, properly-balanced, and well-organized responsibility for the care and study of patients on inpatient services, in intensive care units, and in ambulatory centers. *(Detail)*

VII. Institutions

It is preferable that all facilities be within the primary site. Where a special facility is shared in the interest of cost and efficiency, the program director may arrange for a fellow to rotate to that facility. *(Detail)*

VIII. Program Personnel and Resources

VIII.A. Faculty

VIII.A.1. Pediatric Cardiologists

There must be at least four pediatric cardiologists who provide sufficient time to the program to ensure its educational and research quality, and to provide adequate supervision of cardiology fellows. *(Core)*

VIII.B. Other Program Personnel

VIII.B.1. Appropriate board certified pediatric intensive care personnel must be available for the special and constant care needed by patients in the PICU. *(Core)*

VIII.B.1.a) Fellows also must be provided access to scientists who are actively engaged in cardiovascular research. *(Detail)*

VIII.B.2. Staff from other disciplines, including cardiovascular radiology, cardiothoracic surgery, anesthesiology, pathology, genetics, and those with knowledge in the care of adults with congenital heart disease, should be readily available. *(Detail)*

VIII.B.3. Special staff expertise should be available in electrophysiology, exercise physiology, invasive and interventional cardiac catheterization procedures, preventive cardiology, and echocardiography, including transesophageal, Doppler, and fetal echocardiography. *(Detail)*
VIII.B.3.a) In addition, staff with expertise in other non-invasive diagnostic modalities such as cardiac magnetic resonance imaging (MRI) and/or CT angiograms should be available. (Detail)

VIII.C. Resources

VIII.C.1. Facilities should include space in an ambulatory setting for optimal evaluation and care of outpatients, and an inpatient area with a full array of pediatric and related services staffed by pediatric faculty and fellows. (Core)

VIII.C.2. An active inpatient pediatric cardiology service is essential to the educational program. (Detail)

VIII.C.2.a) It should provide all the diagnostic and treatment services characteristic of a comprehensive children's facility. (Detail)

VIII.C.3. There must be an intensive care unit in each center in which patients with heart disease are cared for under the supervision of the training program staff. (Detail)

VIII.C.3.a) In these units there must be preoperative and postoperative patients with heart disease available to the fellows, as well as appropriate personnel and equipment to allow provision of the special and constant care needed by these patients. (Detail)

VIII.C.4. Clinical data, including data from inpatients, outpatients, and patients undergoing catheterization and/or surgery, should be cross-indexed to allow rapid evaluation and analysis of the assembled information, including age, diagnosis, and outcome morbidity and mortality. (Detail)

VIII.C.5. Support Facilities

The following facilities must be available: (Core)

VIII.C.5.a) diagnostic imaging facilities (Core)

VIII.C.5.a).(1) including cardiac MRI and/or CT scanning and nuclear cardiology; (Detail)

VIII.C.5.b) diagnostic and interventional cardiac catheterization laboratory facilities; (Core)

VIII.C.5.c) an echocardiography laboratory (Core)

VIII.C.5.c).(1) with facilities for performing and interpreting standard transthoracic 2-D and Doppler echocardiograms, fetal echocardiograms, and transesophageal echocardiograms; (Detail)
VIII.C.5.d) a non-invasive electrophysiology laboratory (Core)

VIII.C.5.d).(1) with facilities for performing and interpreting standard electrocardiograms, ambulatory electrocardiograms, and exercise electrocardiograms; (Detail)

VIII.C.5.e) a clinical cardiac electrophysiologic laboratory for invasive intracardiac electrophysiologic studies and catheter ablation; (Core)

VIII.C.5.f) laboratories to perform routine analyses of blood and urine, (Core)

VIII.C.5.f).(1) to determine blood gas values, to perform blood chemistry and coagulation profiles, and to type and cross-match blood; (Detail)

VIII.C.5.g) an operating room designed for pediatric patients who require cardiopulmonary extracorporeal circulation. (Core)

VIII.C.5.g).(1) The area must be equipped with appropriate monitoring devices, defibrillators, and cardiac pacing devices; and, (Detail)

VIII.C.5.h) a blood bank (Core)

VIII.C.5.h).(1) This should be closely affiliated with the center that is equipped to meet the demands of cardiac surgery. (Detail)

VIII.C.6. Patient Population

VIII.C.6.a) Patients available to the program must encompass age groups from the fetus and newborn through young adulthood, and must include exposure to adults with heart disease, particularly congenital heart disease. (Core)

VIII.C.6.a).(1) The fellow must be exposed to pathologic conditions ranging from mild to those requiring extensive or continued intensive care. (Detail)

VIII.C.6.a).(2) There must be both pre- and post-surgical and medical experience with a broad spectrum of congenital and acquired heart disease, and in chronic, acute, and emergency situations. (Detail)

VIII.C.6.b) Patients admitted to the inpatient service should be under the direct or indirect supervision of the subspecialty program staff, and must be available to the fellows. (Detail)

VIII.C.6.c) An accredited program must have an annual patient population, including patients less than one year of age that is sufficient in number to enable each fellow to become skilled in techniques fundamental to the practice of pediatric cardiology. (Detail)
IX. Educational Program

IX.A. Patient Care

IX.A.1. Training in history-taking and physical examination must be the cornerstone of the training program. (Core)

IX.A.1.a) This must include family history that is a critical aspect of the evaluation of pediatric patients with suspected cardiovascular disease. (Detail)

IX.A.2. Fellows must demonstrate the following fundamental skills: (Outcome)

IX.A.2.a) Non-invasive Techniques (Outcome)

IX.A.2.a).(1) Fellows must demonstrate competence in clinical diagnosis, with special emphasis on radiology, electrocardiography, echocardiography, exercise testing, ambulatory electrocardiography, and magnetic resonance imaging. (Outcome)

IX.A.2.a).(1).(a) Each fellow must perform and interpret a minimum of 300 pediatric echocardiography studies. (Detail)

IX.A.2.a).(2) Fellows must acquire skill in the interpretation of electrocardiograms, ambulatory ECG monitoring studies, and exercise stress testing with ECG monitoring. (Outcome)

IX.A.2.b) Invasive Techniques (Outcome)

Fellows must demonstrate competence in the techniques and understanding of the indications for and limitations of diagnostic cardiac catheterization, selective angiography, electrophysiologic testing, therapeutic catheterizations, and pacemaker implantation. (Outcome)

IX.A.2.b).(1) During the three years of training, each fellow should participate in a minimum of 100 catheterizations and 10 pediatric intracardiac electrophysiologic studies. (Detail)

IX.A.3. Resuscitation Techniques (Outcome)

Fellows must demonstrate competence in the techniques, indications, contraindications, complications, and interpretation of pericardiocentesis, cardiopulmonary resuscitation, mechanical ventilation, cardioversion, and temporary pacing. (Outcome)

IX.A.4. Technical and Other Skills (Outcome)

IX.A.4.a) Fellows must demonstrate competence in the use of relevant
electronic equipment, recording devices, and other equipment necessary to perform cardiac catheterization, echocardiography, ambulatory ECG monitoring, and electrophysiologic studies.  

IX.A.4.b) The fellows should be exposed to the basics of implantable pacemaker and cardioverter defibrillator function, and the interrogation and programming of these devices. (Detail)

IX.A.4.c) In addition, fellows must have an understanding of the fundamentals of radiation safety. (Outcome)

IX.A.5. Preoperative and Postoperative Care (Outcome)

IX.A.5.a) Fellows must demonstrate competence in the care of preoperative and postoperative care of patients having both closed and open cardiac surgery, in close cooperation with the cardiothoracic surgical staff. (Outcome)

IX.A.5.b) Fellows must participate in cardiac catheterization conferences to develop the knowledge required in decision making and planning for corrective cardiac surgery. (Detail)

IX.A.5.c) Fellows must have sufficient exposure to and instruction in current surgical techniques, mechanical ventilation, methods of cardiopulmonary bypass, and hypothermia to develop an adequate understanding of these surgical techniques. (Detail)

IX.A.5.d) The fellow should receive instruction in the management of postoperative patients and postoperative complications, both immediate and delayed. (Detail)

IX.A.5.e) Opportunity for long-term follow-up observations of both preoperative and postoperative patients must be provided. (Detail)

IX.A.5.f) Fellows should participate in consultations or conferences in which the medical and surgical staff evaluates the results of surgery and the patient's cardiac status before discharge from the hospital. (Detail)

IX.A.6. Pediatric Cardiology Clinic (Outcome)

Fellows must attend a regularly-scheduled pediatric cardiology clinic that is supervised by one or more members of the cardiology staff. (Core)

IX.A.6.a) Time and space in this clinic must be available for fellows to provide continuity and follow-up care for patients under their care. (Detail)

IX.A.7. Other Clinical Experiences (Outcome)
IX.A.7.a) Fellows must demonstrate competence in the care of patients with collagen vascular diseases, infective endocarditis, cardiomyopathy, Kawasaki disease, and other infectious, vasculitic, and metabolic conditions. (Outcome)

IX.A.7.b) Instruction should include clinical experience in assessing the genetic basis of heart disease. (Detail)

IX.A.7.c) Fellows should demonstrate competence in the prevention, diagnosis, and management of patients with risk factors in hypertensive and atherosclerotic heart disease, including hyperlipidemic states. (Outcome)

IX.A.7.d) Fellows should understand the indications for cardiac transplantation and the basics of immunosuppression, natural history and complications of transplantation. (Outcome)

IX.B. Medical Knowledge

IX.B.1. Fellows must demonstrate knowledge of: (Outcome)

IX.B.1.a) embryology and anatomy of the normal heart and vascular system, clinical morphologic correlations, and potential deviations from normal; (Outcome)

IX.B.1.b) normal and abnormal cardiovascular and cardiopulmonary physiology and metabolism, as well as fundamentals of cardiovascular pharmacology, including mechanisms of drug action, therapeutic indications, and side effects; and, (Outcome)

IX.B.1.c) cardiovascular pathology that includes structured educational experiences to examine various types of congenital cardiovascular anomalies. (Outcome)

IX.B.2. Conferences involving current pathological material must be held regularly, and must be closely correlated with clinical experience. (Detail)

IX.B.3. The program must engage fellows in courses, seminars, workshops, and/or laboratory experience that provide an appropriate background in basic cardiac physiology, cardiac pharmacology, and other fundamental disciplines related to the heart and cardiovascular system. (Detail)

IX.B.4. Multidisciplinary conferences should include physiology, pharmacology, neonatology, anesthesiology, critical care, cardiothoracic surgery, cardiac radiology (such as MRI), and adult cardiology. (Detail)

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*Core Requirements: Statements that define structure, resource, or process elements essential to every graduate medical educational program.
**Detail Requirements:** Statements that describe a specific structure, resource, or process, for achieving compliance with a Core Requirement. Programs and sponsoring institutions in substantial compliance with the Outcome Requirements may utilize alternative or innovative approaches to meet Core Requirements.

**Outcome Requirements:** Statements that specify expected measurable or observable attributes (knowledge, abilities, skills, or attitudes) of residents or fellows at key stages of their graduate medical education.

**Osteopathic Recognition**
For programs seeking Osteopathic Recognition for the entire program, or for a track within the program, the Osteopathic Recognition Requirements are also applicable. 
([http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/Osteopathic_Recogniton_Requirements.pdf](http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/Osteopathic_Recogniton_Requirements.pdf))