

PROGRAM REQUIREMENTS FOR  
RESIDENCY EDUCATION IN  
PEDIATRICS

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**I. Introduction**

Residency programs in pediatrics must provide 3 years of consecutive training that involve progressive responsibility.

A. Duration and Scope of Training

Programs must provide residents with a broad exposure to the health care of children and substantial experience in the management of diverse pathologic conditions. This must include experience in child health maintenance and those conditions commonly encountered in primary care practice. It must also include experience with a wide range of acute and chronic medical conditions of pediatrics in both the inpatient and ambulatory settings.

The first year should include an introduction to the basic experiences on which the rest of the training will be based. During the last 24 months of training, the program must require residents to supervise the activities of more junior residents within the approved inpatient and outpatient educational settings.

Throughout the 3 years of training, the goal should be the achievement of competency in patient care, medical knowledge, professionalism, communication, practice-based learning and improvement, and systems-based practice.

B. Goal of the Residency

The goal of residency training in pediatrics is to provide educational experiences that prepare residents to be competent general pediatricians able to provide comprehensive and coordinated care to a broad range of pediatric patients. The residents' educational experiences must emphasize the competencies and skills needed to practice general pediatrics of high quality in the community. In addition, residents must become sufficiently familiar with the fields of subspecialty pediatrics to enable them to participate as team members in the care of patients with chronic and complex disorders.

Residents must be given the opportunity to function with other members of the health care team in both inpatient and ambulatory settings to become competent as leaders in the organization and management of patient care.

## II. Institutions

### A. Sponsoring Institution

**One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to resident assignments at all participating institutions.**

### B. Participating Institutions

- 1. Assignment to an institution must be based on a clear educational rationale, integral to the program curriculum, with clearly-stated activities and objectives. When multiple participating institutions are used, there should be assurance of the continuity of the educational experience.**

An accredited program may be independent or may occur in 2 or more institutions that develop formal agreements and conjoint responsibilities to provide complementary facilities, teaching staff, and teaching sessions. When affiliated institutions are utilized and a single Program Director assumes responsibility for the entire residency, including the appointment of all residents, the determination of all rotations, and the assignment of both residents and members of the teaching staff, the affiliated institution may be proposed as *integrated*. Ordinarily, a hospital may not be an integrated part of more than 1 pediatric residency, and a program may not propose the primary teaching site of another accredited program as an integrated participant. The Residency Review Committee (RRC) must approve the designation of a participating hospital as integrated. In making its determination, the RRC will consider the proximity of the hospital to the primary teaching site and the duration of rotations planned. Normally, at least 3 months of required experience should occur at a hospital that is designated as integrated. A significant increase in the time spent at an integrated hospital should receive prior approval from the RRC. Within a single program some participating hospitals may qualify as integrated, while others are merely *affiliated*.

Although no limit is placed on the duration of rotations to institutions that are integrated with the primary hospital's pediatric program (although the duration must have RRC approval), rotations to participating institutions that are not integrated with the primary hospital may not exceed a total of 9 months during the 3 years of training. No more than 3 months of these outside rotations may be in institutions that do not have their own pediatric residency.

Rotations to other programs should enrich but not replace core experiences. When residents rotate to an institution that has its own accredited pediatric residency, the rotating residents must be fully absorbed into the prevailing pattern of instruction and patient care at the same level as the pediatric residents of that host program.

Residency programs that offer training to residents from other pediatric residencies must provide instruction and experience equivalent to that given to their own residents. They should enter into agreements with other programs only if they are prepared to absorb those residents into the prevailing pattern of education and patient care.

2. **Assignment to a participating institution requires a letter of agreement with the sponsoring institution. Such a letter of agreement should:**
  - a) **identify the faculty who will assume both educational and supervisory responsibilities for residents;**
  - b) **specify their responsibilities for teaching, supervision, and formal evaluation of residents, as specified later in this document;**
  - c) **specify the duration and content of the educational experience; and**
  - d) **state the policies and procedures that will govern resident education during the assignment.**

### **III. Program Personnel and Resources**

The Chief of Pediatrics/Department Chair must have overall responsibility for all educational programs that are carried on within the Department of Pediatrics, including those in the subspecialties. All program descriptions submitted to the RRC from this department must bear this person's signature, in addition to that of the Designated Institutional Official (DIO) and the Program Director, indicating that the Chief or Chair has reviewed and approved the materials submitted.

#### **A. Program Director**

1. **There must be a single Program Director responsible for the program. The person designated with this authority is accountable for the operation of the program.** Given the differences in training programs, there may be flexibility in defining program leadership, with a suggested minimum of 0.75 FTE dedicated to this aspect of the residency program. In order to provide this level of leadership, the Program Director should devote at least 0.5 FTE of his/her professional effort to this activity. In a residency program of fewer than 31 residents (each resident in a combined program considered as 1.0 FTE), there should be a total of 0.75 physician faculty FTEs dedicated to the operation of the program. In a program of 31-60 residents, this should be 1.0 faculty FTEs. For programs with 61-90 residents, support should be 1.25 faculty FTEs, and for those with over 90 residents, 1.5 FTEs. If the Program Director is unable to fulfill commitments beyond 0.5 FTE, additional

time should be provided by key faculty members designated as associate Program Directors. Associate Program Director time should be provided in increments of no less than 0.25 FTE. This level of program leadership should be supported financially by the sponsoring and/or participating institutions. **In the event of a change of either Program Director or department chair, the Program Director should promptly notify the Executive Director of the RRC through the Web Accreditation Data System of the Accreditation Council for Graduate Medical Education (ACGME).**

2. **The Program Director, together with the faculty, is responsible for the general administration of the program, and for the establishment and maintenance of a stable educational environment. Adequate lengths of appointment for both the Program Director and faculty are essential to maintaining such an appropriate continuity of leadership.**

In addition to the key faculty noted above, all programs should have a minimum of one person (e.g., a senior resident, chief resident, or junior faculty) who functions as a liaison between the residents and faculty. Support, based on program size, should be as follows: fewer than 31 residents, 1 FTE; 31–90 residents, 2 FTEs and for greater than 90 residents, 3 FTEs. These numbers reflect minimum support.

3. **Qualifications of the Program Director are as follows:**
  - a) **The Program Director must possess the requisite specialty expertise, as well as documented educational and administrative abilities.**
  - b) **The Program Director must be certified in the specialty by the American Board of Pediatrics, or possess qualifications for the faculty role that are judged to be acceptable by the RRC (e.g., active participation in national societies, evidence of ongoing scholarship through contributions to the peer-review literature, and presentations at national meetings).**
  - c) **The Program Director must be appointed in good standing and based at the primary teaching site.**
4. **Responsibilities of the Program Director are as follows:**
  - a) **The Program Director must oversee and organize the activities of the educational program in all institutions that participate in the program. This includes selecting and supervising the faculty and other program personnel at each participating institution, appointing a local site director, and monitoring appropriate resident supervision at all participating institutions.**

- b) **The director is responsible for preparing an accurate statistical and narrative description of the program as requested by the RRC, as well as updating annually both program and resident records through the ACGME's Accreditation Data System.**
- c) **The Program Director must ensure the implementation of fair policies, grievance procedures, and due process, as established by the sponsoring institution and in compliance with the Institutional Requirements.**
- d) **The Program Director must seek the prior approval of the RRC for any changes in the program that may significantly alter the educational experience of the residents. Such changes, for example, include:**
  - (1) **the addition or deletion of a participating institution;**
  - (2) **a change in the format of the educational program;**
  - (3) **a change in resident complement for those specialties that approve resident complement.**

A modest change in the resident complement may be made without prior RRC approval if the program has the necessary resources to train the additional resident(s) without diluting the experience of those already in the program, and if the change has the approval of the DIO of the sponsoring institution. A program that plans to implement such an increase should review the most recent letter of notification from the RRC for any citations pertaining to resources. Any such citation should be addressed prior to implementing an increase in complement. Proposed increases must be reported electronically through the ACGME Web Accreditation Data System (WebADS).

**On review of a proposal for any major change in a program, the RRC may determine that a site visit is necessary.**

## **B. Faculty**

- 1. Sponsoring institutions must provide the requisite numbers of key faculty based on program size. **At each participating institution, there must be a sufficient number and diversity of faculty with documented qualifications to instruct, supervise adequately, and function as general pediatrician and subspecialist role models for all residents in the program.**

a) General Pediatricians

Within the primary hospital and/or integrated participating hospitals, there must be teaching staff with expertise in the area of general pediatrics who will serve as teachers, researchers, and role models for general pediatrics. These physicians should have a continuing time commitment to direct patient care to maintain their clinical skills. Hospital-based as well as community-based general pediatricians should participate actively in the program as leaders of formal teaching sessions, as outpatient preceptors, and as attending physicians on the general inpatient services. The number of general pediatricians actively involved in the teaching program must be sufficient to enable each resident to establish close working relationships that foster role-modeling. Where teaching staff participate on a part-time basis, there must be evidence of sufficient involvement and continuity in teaching.

b) Subspecialty Faculty

Similarly, within the primary hospital and/or integrated participating hospitals, there must be qualified teaching staff with subspecialty expertise who will serve as teachers, researchers, and role models for the residents. Specifically, there must be teaching staff with training and/or experience in behavioral and developmental pediatrics and in adolescent medicine. Within the primary hospital and/or integrated participating hospitals, there must also be teaching staff in at least 5 of the listed pediatric subspecialties (see Section V. B. 2. d) from which the 4 required 1-month rotations must be chosen. These pediatric subspecialists must function on an ongoing basis as integral parts of the clinical and didactic components of the program in both outpatient and inpatient settings.

c) Other Faculty

A surgeon having significant experience with pediatric patients must play a major role in the residents' education with respect to surgical diagnoses and preoperative and postoperative care. A pathologist and a radiologist who have significant experience with pediatric problems and who interact regularly with the pediatric residents are also essential.

2. **The faculty, furthermore, must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. They must demonstrate a strong interest in the education of residents, and must support the goals and objectives of the educational program of which they are members.** A measure of the commitment of the teaching staff to the pediatrics program is the degree to which patients under their care are available for resident education.

Since the faculty are expected to be role models for residents, they should demonstrate the knowledge, skills, and attitudes needed to provide an environment in which the competencies become habits of practice. To accomplish this there must be a structured program for faculty development that addresses clinical, teaching, research, and leadership skills. Teaching and evaluation of competencies must be included as part of this program.

**3. Qualifications of the physician faculty are as follows:**

- a) **The physician faculty must possess the requisite specialty expertise and competence in clinical care and teaching, as well as documented educational and administrative abilities and experience in their field.**
- b) **The physician faculty must be certified by the American Board of Pediatrics in the specialty and in their subspecialty area, where appropriate, or possess qualifications judged to be acceptable by the RRC.** Each time the program is evaluated by the RRC, it is the responsibility of the Program Director to provide evidence of appropriate qualifications for teaching staff who lack board certification, (e.g., active participation in national societies, evidence of ongoing scholarship through contributions to the peer-review literature, and presentations at national meetings).
- c) **The physician faculty must be appointed in good standing to the staff of an institution participating in the program.**

**4. The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the faculty, and an active research component must be included in each program. *Scholarship* is defined as the following:**

- a) **The scholarship of *discovery*, as evidenced by peer-reviewed funding or by publication of original research in a peer-reviewed journal;**
- b) **The scholarship of *dissemination*, as evidenced by review articles or chapters in textbooks;**
- c) **The scholarship of *application*, as evidenced by the publication or presentation of, for example, case reports or clinical series at local, regional, or national professional and scientific society meetings.**

**Complementary to the above scholarship is the regular participation of the teaching staff in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship (e.g., the**

**offering of guidance and technical support for residents involved in research such as research design and statistical analysis); and the provision of support for residents' participation, as appropriate, in scholarly activities.**

**5. Qualifications of the nonphysician faculty are as follows:**

- a) **Nonphysician faculty must be appropriately qualified in their field;**
- b) **Nonphysician faculty must possess appropriate institutional appointments.**

**C. Other Program Personnel**

**Additional necessary professional, technical, and clerical personnel must be provided to support the administration of the program.**

Teaching by other health professionals such as nurses, pharmacists, social workers, child-life specialists, physical and occupational therapists, speech and hearing pathologists, respiratory therapists, psychologists, and nutritionists is highly desirable.

Each residency should have a minimum of 1 FTE designated for administrative support. For programs of 31-60 residents, this support should be 1.5 FTEs; for programs of 61-90 residents, 2 FTEs; and for programs of more than 90 residents, 3 FTEs. These positions should be financially supported by the sponsoring and/or participating institutions.

**D. Resources**

**The program must ensure that adequate resources (e.g., sufficient laboratory space and equipment, computer and statistical consultation services) are available.**

**1. Inpatient and Outpatient Facilities**

The inpatient and outpatient facilities must be adequate in size and variety, and must have the appropriate equipment necessary for a broad educational experience in pediatrics.

There must be an emergency facility that is appropriately equipped and staffed for the care of pediatric patients. The program must also have an intensive care facility that is appropriately equipped and staffed for the care of a sufficient number of seriously-ill pediatric patients to provide adequate experience for the number of residents in the program.

2. Medical Databases

There must be access to an on-site library or electronic access to a collection of appropriate texts and journals in each institution participating in the residency program. Access must be readily available during nights and weekends.

3. Patient Population

The pediatric patients that must be available for resident education range in age from infancy through young adulthood. Programs must provide residents with patient care experience in both inpatient and outpatient settings. Insufficient patient experience does not meet educational needs; an excessive patient load suggests an inappropriate reliance on residents for service obligations, which might also jeopardize the educational experience.

**IV. Resident Appointments**

**A. Eligibility Criteria**

**The Program Director must comply with the criteria for resident eligibility as specified in the Institutional Requirements.**

**B. Number of Residents**

**The RRC may approve the number of residents based upon established written criteria that include the adequacy of resources for resident education (e.g., the quality and volume of patients and related clinical material available for education), faculty-resident ratio, institutional funding, and the quality of faculty teaching.** This approval notwithstanding, the RRC for Pediatrics does not approve a specific number of resident positions. At the time of program review, the Committee will judge the adequacy of the program's resources to support the number of resident positions proposed. Between reviews, a Program Director may implement a modest increase in complement in accordance with guidelines provided on the ACGME Website.

Because peer interchange is a very important component of the learning process, each program is expected to recruit and retain a sufficient number of qualified residents to fulfill the need for peer interaction among those training in pediatrics.

Residents at more than one level of training must interact in the care of inpatients, allowing for frequent and meaningful discussion during all phases of the training program (e.g., neonatal, outpatient, inpatient, and emergency services). To achieve this, a program should offer a minimum total of 12 resident positions (i.e., 4 at each level, exclusive of subspecialty residents). Except for periods of transition, the same number of positions should be offered in each of the 3 years of training. An inability to recruit the required minimum number of residents and/or a high rate of resident attrition from a program over a period of years will

be a cause of concern to the RRC. The RRC will consider the presence of residents from combined pediatrics programs (e.g., medicine-pediatrics or pediatrics-emergency medicine), when it evaluates the adequacy of the resident complement and of peer interaction. The total number of residents from combined programs should not be so large as to have a negative effect on the education of categorical residents.

**C. Resident Transfers**

**To determine the appropriate level of education for residents who are transferring from another residency program, the Program Director must receive written verification of previous educational experiences and a statement regarding the performance evaluation of the transferring resident prior to their acceptance into the program.** This documentation should be available for review by the site visitor. **A Program Director is required to provide verification of residency education for residents who may leave the program prior to completion of their education.**

**D. Appointment of Fellows and Other Students**

**The appointment of fellows and other specialty residents or students must not dilute or detract from the education opportunities available to regularly appointed residents.**

**V. Program Curriculum**

**A. Program Design**

**1. Format**

**The program design and sequencing of educational experiences will be approved by the RRC as part of the review process.** Each program must describe a core curriculum that complies with the RRC's requirements and in which all residents participate. All residents in the program must have a minimum of 18 months of training in common. In addition, programs that utilize multiple hospitals or that offer more than one track must provide evidence of a unified educational experience for each resident.

**2. Goals and Objectives**

**The program must possess a written statement that outlines its educational goals with respect to the knowledge, skills, and other attributes of residents for each major assignment and for each level of the program. This statement must be distributed to residents and faculty, and must be reviewed with residents prior to their assignments.**

## B. Specialty Curriculum

**The program must possess a well-organized and effective curriculum, both didactic and clinical. The curriculum must also provide residents with direct experience in progressive responsibility for patient management.**

### 1. PATIENT CARE

Residents must be able to provide family-centered patient care that is culturally effective, developmentally and age appropriate, compassionate, and effective for the treatment of disease and the promotion of health.

Residents must be exposed to sufficient numbers of patients ranging in age from infancy through young adulthood, and representing a diverse population of varying complexity in various clinical settings. The program must provide evidence of the breadth and depth of inpatient experience in the format determined by the RRC. A minimum of 40% of clinical training should be devoted to ambulatory experiences. These experiences include all assignments in the continuity practice, emergency and acute care, and community-based practices, as well as the ambulatory portion of normal/term newborn, developmental/behavioral, adolescent medicine, and other subspecialty experiences.

Residents must be given progressive responsibility under close faculty supervision within a team that fosters peer and supervisory interchange. The availability of consultative resources appropriate to the patient base must be ensured, while allowing residents to participate in the full spectrum of patient care from admission through discharge in the inpatient setting, and from intake through follow-up in the outpatient setting.

Indicators for a satisfactory patient care experience include: sufficient numbers of patients, diversity of diagnoses, and acuity/complexity of the patients. Faculty must document the fact that residents possess the necessary knowledge, skills, and attitudes to provide longitudinal primary care to patients. Residents should demonstrate competence in the following elements of patient care:

- a) gathering essential and accurate information about the patient;

Residents should be able to:

- (1) interview patients/families about the particulars of the medical condition for which they seek care, with specific attention to behavioral, psychosocial, environmental, and family unit correlates of disease;
- (2) perform complete and accurate physical examinations.

Residents must be evaluated performing histories and physical examinations. This must be accomplished through direct observation using a structured approach with different evaluators in different settings.

- b) making informed diagnostic and therapeutic decisions;
- c) developing and carrying out management plans;

The program must ensure that residents have the opportunity for independent evaluation, management, and coordination of care under the guidance of faculty. Residents must demonstrate progressive autonomy over the course of training that affords them the ability to act in a supervisory role under faculty guidance. A minimum of 5 supervisory months is required during the last 24 months of training.

Supervising residents/faculty must document the residents' ability to make diagnostic and therapeutic decisions based on best evidence and to develop and carry out management plans. This may be accomplished through direct observation in the clinical setting supplemented by one of the following: chart reviews or chart stimulated recall; faculty review of completed case-based modules; an observed structured clinical encounter; or some combination of these or other methods.

Programs should require residents to participate in the following:

- (1) independent evaluation and development of a differential diagnosis, diagnostic work-up, therapeutic management, coordination of care, and discharge planning under faculty guidance;
- (2) diagnosis and management of acute episodic medical illness, such as meningitis, sepsis, dehydration, pneumonia, diarrhea, renal failure, seizures, coma, hypotension, hypertension, and respiratory illnesses;
- (3) diagnosis and management of acute problems associated with chronic diseases, such as diabetic ketoacidosis, status asthmaticus, status epilepticus, oncologic therapy and complications, congenital heart disease, cystic fibrosis, chronic renal disease, gastrointestinal disorders, hepatic failure, metabolic disorders, neurologic disorders, and rheumatologic disorders;
- (4) pediatric aspects of the management of surgical patients, both preoperatively and postoperatively, including interaction with the surgical team.

In addition to the above, each resident should demonstrate the following:

- (5) the ability to determine which patients require in-hospital care and why, including medical, psychosocial, and environmental considerations;
  - (6) the skills in deciding which patients may be managed on a general inpatient service and which require higher levels of care and expertise in a critical care unit;
  - (7) the ability to select and interpret appropriate studies in the evaluation of patients;
  - (8) the ability to utilize best evidence to determine therapeutic management;
  - (9) the appropriate use of consultants.
- d) prescribing and performing all medical procedures;

These educational experiences should be graduated so that residents build and maintain skills throughout the training program. Residents should be supervised until they can demonstrate the necessary skill for independent practice.

The program must document instruction in the performance of procedures including indications, contraindications, and complications. As part of procedural competence, residents must be able to obtain informed consent and address the pain that is associated with procedures. Residents must use the on-line log provided by the ACGME to record their procedures. The Program Director must have documentation showing the competence of each resident for each procedure. The program must also document that residents have completed training in both Pediatric Advanced Life Support and the Neonatal Resuscitation Program.

Each program must provide sufficient training in the following skills:

- (1) basic and advanced life support;
- (2) endotracheal intubation;
- (3) placement of intraosseous lines (demonstration in a skills lab or PALS course is sufficient);
- (4) placement of intravenous lines;

- (5) arterial puncture;
- (6) venipuncture;
- (7) umbilical artery and vein catheterization;
- (8) lumbar puncture;
- (9) bladder catheterization;
- (10) gynecologic evaluation of prepubertal and postpubertal females;
- (11) wound care and suturing of lacerations;
- (12) subcutaneous, intradermal, and intramuscular injections;
- (13) developmental screening test;
- (14) procedural sedation;
- (15) pain management; and
- (16) reduction and splinting of simple dislocations/fractures.

In addition, programs should provide exposure to the following procedures or skills:

- (17) circumcision;
- (18) tympanometry and audiometry interpretation;
- (19) vision screening;
- (20) hearing screening;
- (21) simple removal of foreign bodies (e.g., from ears or nose);
- (22) inhalation medications;
- (23) incision and drainage of superficial abscesses;
- (24) chest tube placement; and
- (25) thoracentesis.

- e) counseling patients and families;

Faculty must document effective counseling of patients and families by residents, as well as their ability to deliver bad news, based on direct observation and comment from patients and families.

- f) providing effective health maintenance and anticipatory guidance;

A continuity clinic where the resident assumes responsibility for the comprehensive care of a group of patients is an essential component of training.

Residents must be able to:

- (1) develop therapeutic relationships with patients and families;
- (2) coordinate the care of children with complex and multiple problems;
- (3) provide child health supervision with an emphasis on age and developmentally appropriate anticipatory guidance and screening;
- (4) provide anticipatory guidance regarding developmental issues and preventive health care;
- (5) implement age-appropriate screening, including oral health;
- (6) manage patients with chronic disease by coordinating the care rendered by other health care providers.

- g) using information technology to optimize patient care.

## 2. MEDICAL KNOWLEDGE

Residents 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.

The program must document resident competence in the following elements of medical knowledge:

- a) sufficient knowledge of the basic and clinically supportive sciences appropriate to pediatrics;
  - (1) Inpatient

Resident experience on the inpatient service must be for a minimum of 5 months. A variety of patient experiences will meet this requirement, including general pediatric patients, mixed non-intensive care subspecialty patients, or a single group of non-intensive care subspecialty patients. No more than 1 of the 5 required months may be devoted to the care of patients in a single subspecialty. The patient population available for resident education on the inpatient service must be of sufficient number, age distribution, and variety of complex and diverse pathology.

Residents at more than one level of training must interact in the care of inpatients. A first-year resident should have direct responsibility for an average daily minimum of 5 inpatients. If the minimum number of patients is not met, resident inpatient logs will be required to attest to the adequacy of the experience.

Residents on the inpatient service must be supervised by pediatric faculty who have extensive experience in and knowledge of the care of pediatric patients with illnesses of sufficient severity to warrant hospitalization. The utilization of general pediatricians in this role is encouraged, provided that consultative services from pediatric subspecialists and other specialists appropriate to the patient population are readily available.

Regularly-scheduled teaching rounds must be conducted by qualified generalists and subspecialists who are directly involved in patient care. These rounds must be held at least 3 times per week, and may not be replaced by rounds that are primarily work oriented. Rounds should be targeted to the knowledge and skills required of a general pediatrician, and should emphasize the appropriate utilization of subspecialist colleagues. The correlation of the pathophysiologic basis of the disease process should be stressed. During ward rotations, there must be teaching rounds that are patient based, and that address such areas as interpretation of clinical data, pathophysiology, differential diagnosis, cost-effective management of the patient, and the appropriate use of technology and disease prevention.

*In-house call or night call* is defined as those duty hours beyond the normal workday when residents are required to be available on site in the assigned institution. In addition to providing patient care, the purposes of night call include the following: 1) learning the evolution of disease through continuity of patient care over an extended period of time; 2) cumulative acquisition and maintenance of skills; and 3)

fostering progressive independent decision-making. A night-float system may be used. *Night-float* is defined as those duty hours restricted to evening and overnight hours in a block format when residents are required to be present in the assigned institution. During a night-float rotation, residents do not typically have daytime responsibilities. Structured night-float rotations for which there are formal goals, objectives, and a specific evaluation component, and which provide an educational experience (i.e., both rounds and conferences with faculty), may count for 1 of the 5 required months of non-intensive care inpatient experience.

(2) Emergency and Acute Illness Experience

The experience in emergency and acute illness must constitute a minimum of 4 months. Two of these months should be in emergency medicine, of which the equivalent of 1 month may be completed longitudinally. At least 1 of these months must be a block rotation in an emergency department that serves as the receiving point for EMS transport and ambulance traffic and which is the access point for seriously-injured and acutely-ill pediatric patients. This may be either a pediatric emergency department or a combined pediatric/adult emergency department. Assignment to an acute care center or walk-in clinic to which patients are triaged from the emergency department will not fulfill this requirement.

The remaining 2 months of required experience may be in the emergency department or, if patients are available in sufficient numbers, in another setting where acutely-ill pediatric patients are seen. Optional sites may include walk-in clinics or acute care centers. Preferably, this experience should be a block rotation, but integration into other longitudinal experiences is acceptable if the required duration and the educational goals and objectives can be both met and documented, with appropriate supervision ensured.

The experience must be designed to develop resident competence in managing unselected and unscheduled patients with acute illness and injury of varying degrees of severity, from very minor to life-threatening.

Specific objectives of this experience must include, but not be limited to, the development of skills in the following: resuscitation, stabilization, and triage of patients after initial evaluation; interaction with other professionals involved in emergency care in the emergency department,

including the trauma team and emergency physicians; specialists in surgery, anesthesia, radiology, relevant pediatric and surgical subspecialties; dentists and others as appropriate. There must also be interaction with emergency medical personnel in the provision of pre-hospital care for acutely-ill or -injured patients, which includes either preparation of patients for transport or receipt of patients who have been transported via the EMS system.

The Program Director must ensure that the pediatric residents have first-contact evaluation of pediatric patients and continuous on-site supervision. It is not an adequate educational experience if the pediatric resident functions only on a consultative basis or deals only with a pre-selected patient population. Residents in these settings must have on-site supervision by board-certified emergency medicine specialists with expertise in the care of pediatric patients, or by members of the pediatric teaching staff who have documented experience in the care of acute pediatric illnesses and injuries.

Residents should have the opportunity to work on a multidisciplinary clinical team to learn the role of the general pediatrician in such a setting. A system for patient outcome feedback to the resident should be established. A resident's performance must be evaluated on a regular basis by staff directly involved in the acute and emergency care experience, and appropriate feedback must be provided to the resident and to the Program Director.

The pediatric residents' major responsibility must be for an appropriate range of pediatric patients, although they may be called on to care for some adult patients to ensure adequate volume and diversity. Programs that share the emergency and acutely-ill patient base with other training programs, such as emergency medicine, pediatric emergency medicine, and family medicine, must document that a sufficient and appropriately-diverse pediatric patient population is available to the pediatric residency program.

The comprehensive experience for all residents should include, but not be limited to, the following disorders, and should emphasize the pathophysiologic correlates of the clinical situations:

- (a) acute major and minor medical problems, including but not limited to respiratory infection, respiratory failure, cardiopulmonary arrest, dehydration, coma,

seizures, diabetic ketoacidosis, asthma, skin disorders, pyelonephritis, sepsis, shock, fever, and childhood exanthems;

- (b) acute manifestations or exacerbations of chronic diseases;
- (c) acute major and minor surgical problems, including but not limited to appendicitis, bowel obstruction, burns, foreign body inhalation and ingestion, abscess drainage, and head trauma;
- (d) poisonings and ingestion;
- (e) physical and sexual abuse;
- (f) minor trauma (including splinting, casting, and suturing);
- (g) major trauma (including active participation with the trauma team);
- (h) participation in pre-hospital management and transport;
- (i) acute psychiatric, behavioral, and psychosocial problems; and
- (j) admission or discharge planning, including communication with the personal physician.

(3) Continuity Experience

A program must document one half-day session per week for a minimum of 36 clinic weeks per year throughout the 3 years of training for each resident. The program must provide adequate continuity experience for all residents to allow them the opportunity to develop an understanding of and appreciation for the longitudinal nature of general pediatric care, including: aspects of physical and emotional growth and development; health promotion and disease prevention; management of acute, chronic, and end-of-life medical conditions; family and environmental impacts; coordination of patient-centered care both within the practice and with multidisciplinary providers; and practice management. The scope of each resident's continuity clinic patient population must be documented with a log that includes age, diagnoses, and encounter dates.

The program must ensure that residents are exposed to a continuity-patient population sufficient in number and of adequate variety to meet the educational objectives. It must include well patients and those with complex and chronic problems. Patients initially managed in the normal newborn nursery, emergency department, inpatient service, intensive care unit (pediatric and neonatal), subspecialty clinics, and other sites may be enrolled in the residents' panels. Inherent in the principle of continuity of care is that patients are seen on a regular and continuing basis. Isolated block experiences alone will not satisfy this requirement. Ideally, residents should participate in the care of their patients through any hospitalization, assess them during acute illnesses, and be available to facilitate other services, such as school-related evaluations and specialty referrals.

Residents must see progressive numbers of continuity patients, with a minimum of 3 patients per session in year 1, 4 in year 2, and 5 in year 3. Where residents participate in more than one half-day of continuity clinic per week (i.e., 2 sessions in same setting or 1 session in each of 2 settings), the total number of patients seen per week of clinic may be substituted for the number seen per session.

The curriculum should emphasize the generalist approach to common office-based pediatric issues, including anticipatory guidance, developmental and behavioral issues, and immunization practices and health promotion, as well as the care of children with chronic conditions. Residents must learn to serve as the coordinator of comprehensive primary care for children with complex and multiple health-related problems, and to function as part of a health-care team. Subspecialty consultants and allied health personnel must be available to residents in the care of their continuity patients.

Residents must assume responsibility for the continuing care of a group of patients throughout their training, either as an individual practitioner or as a team member. In an effort to foster a continuity experience that emulates a pediatric practice setting, the concept of group or team practice will be supported. If a team practice is implemented, there must be a regular and formal mechanism for sharing information among the team members.

Regardless of the setting, there should be a continuity relationship among the resident(s), preceptor(s), and a

group of patients. To enhance the communication that is essential to continuity of experience, team size should not be excessive, and must include a preceptor or a small group of preceptors to enhance the resident-preceptor relationship. Consistency of preceptors over time is desirable.

The preceptors' responsibilities include, but are not limited to, mentoring the residents in communication skills, quality improvement skills, practice management system complexities, and patient advocacy (refer to competencies in Practice-Based Learning and Improvement and Systems-Based Practice).

The number of teaching staff in the continuity clinic must be sufficient to ensure an appropriate educational experience for all residents present. Teaching staff who serve as attendings in the continuity clinic must have expertise in the area of general pediatrics, and must be able to function as role models in general pediatrics. They must be actively involved in direct patient care to maintain their expertise and credibility.

(4) Normal/Term Newborn Experience

There must be the equivalent of at least 1 month in the care of normal/term newborns. This may not be part of a neonatal intensive care unit (NICU) rotation, but it may be combined with another experience over a longer period of time if an equivalent duration is demonstrated and if the educational goals of both experiences can be met. If competence in newborn care cannot be achieved in one month, it is desirable for a program to incorporate additional newborn experience. Faculty with expertise in general pediatrics should be involved in this training through teaching and/or supervision. The experience should also include at least the following:

- (a) recognition and appropriate intervention for high-risk infants;
- (b) distinguishing well from ill infants;
- (c) performance of a physical examination on newborn infants, which includes assessment of gestational age and the appropriateness of intrauterine growth;
- (d) identification of common anomalies, birth defects, and syndromes, including counseling the parents;

- (e) provision of routine newborn care;
- (f) recognition and treatment of common physiologic deviations in the newborn;
- (g) identification and management of infants of mothers with substance abuse and/or sexually transmitted diseases (STDs) or other infections;
- (h) routine newborn screening and appropriate follow-up of infants with positive test results;
- (i) preventive measures, including immunization schedules and safety issues, such as counseling parents on the importance of infant safety seats and knowledge of normal infant nutrition, including breast feeding and knowledge of normal newborn growth and development; and
- (j) discharge planning.

(5) Community and Child Advocacy Experiences

There must be structured educational experiences, with planned didactic and experiential opportunities for learning and methods of evaluation, that prepare residents for the role of advocate for the health of children within the community. These should include both didactic and experiential components that may be integrated into other parts of the curriculum (e.g., continuity, adolescent, behavior/development) or they may be designed as distinct longitudinal or block rotations.

Residents must be supervised by pediatricians and other health professionals experienced in the relevant content areas. The curriculum should include, but not be limited to, the following subjects:

- (a) community-oriented care with focus on the health needs of all children within a community, particularly underserved populations;
- (b) culturally-effective health care;
- (c) effects on child health of common environmental toxins, such as lead, and also of potential agents used in bioterrorism;

- (d) the role of the pediatrician as a consultant to schools, in early childhood education and in child care settings;
- (e) the role of the pediatrician in child advocacy, including the legislative process;
- (f) the role of the pediatrician in disease and injury prevention; and
- (g) the role of the pediatricians in the regional emergency medical system for children, as well as their role in handling mass casualties.

These experiences should utilize settings within the community, such as community-based primary care practice settings; community health resources and organizations, including governmental and voluntary agencies (e.g., local and state public health departments, services for children with disabilities and special health care needs, Head Start, schools, including elementary school through college, day care settings, home health services, hospice, facilities for incarcerated youth, and facilities for treatment and management of substance abuse).

(6) Subspecialty Education

The curriculum must be designed to teach each resident the knowledge and skills appropriate for a general pediatrician, including the management of psychosocial problems that affect children with complex chronic disorders and their families. The experiences should include appropriate reading assignments, subspecialty conferences, and other activities that familiarize the residents with the techniques and skills used by the subspecialists.

Although it is not possible for each resident to have a formal rotation through every subspecialty, it is required that all residents be exposed to the specialized knowledge and methods of the pediatric subspecialties through longitudinal experiences on the general inpatient and intensive care services and in outpatient settings. Residents should be taught when to seek consultation, when to refer to the subspecialist, and how to manage chronic illness as a team member with the subspecialist and other allied health professionals.

All of the formal subspecialty rotations must involve an adequate number, variety, and complexity of patients to provide each resident with an appropriately broad experience in the subspecialty.

During these rotations, residents must be given appropriate patient care responsibilities with an opportunity to evaluate and formulate management plans for subspecialty patients. In the outpatient subspecialty clinics and with appropriate supervision by a subspecialist, residents should function as the physician of first contact.

Pediatric subspecialty faculty must be directly involved in the supervision of residents, and be readily available for consultation on a continuing basis.

(a) Intensive Care Experience (NICU and PICU)

The intensive care experiences must provide the opportunity for residents to deal with the special needs of critically-ill patients and their families. The intensive care experience must be for a minimum of 5 and a maximum of 6 months. This must include a minimum of 3 and a maximum of 4 block months of neonatal intensive care (Level II or III) and 2 block months of pediatric intensive care. Night and weekend responsibilities when the residents are predominantly responsible for the NICU are included in the allowable maximum intensive care experience, with 200 hours being considered the equivalent of 1 month. However, when a resident is covering the entire inpatient service, including neonatal intensive care or the delivery room, these hours need not be included in the calculation of time in intensive care. Hours covering the PICU are not included in calculation of time in intensive care.

To provide additional experience for those who may need it for future practice, 1 additional elective block month in critical care may be allowed. As is the case with any block month, it may include call. For a program that trains pediatricians to practice in non-urban areas that require the primary care pediatrician to resuscitate critically-ill infants and children, the program may petition the RRC for approval to offer additional critical care experience, providing appropriate justification.

The curricula in neonatal and pediatric intensive care must be structured to familiarize residents with the special multidisciplinary and multiorgan implications of fluid, electrolyte, and metabolic disorders; trauma, nutrition, and cardiorespiratory management; infection control; and recognition and management of congenital anomalies in pediatric patients. It also must be designed to teach the following:

- i) recognition and management of isolated and multi-organ system failure and assessment of its reversibility;
- ii) understanding of the variations in organ system dysfunction by age of patient;
- iii) integration of clinical assessment and laboratory data to formulate management and therapeutic plans for critically ill patients;
- iv) invasive and noninvasive techniques for monitoring and supporting pulmonary, cardiovascular, cerebral, and metabolic functions;
- v) participation in decision making in the admitting, discharge, and transfer of patients in the intensive care units;
- vi) resuscitation, stabilization, and transportation of patients to the ICUs and within the hospital;
- vii) understanding of the appropriate roles of the generalist pediatrician and the intensivist/neonatologist in these settings;
- viii) participation in preoperative and postoperative management of surgical patients, including understanding the appropriate roles of the general pediatric practitioner and the intensivist in this setting;
- ix) participation, during the neonatal intensive care experience, in perinatal diagnostic and management discussions;

- x) resuscitation and care of newborns in the delivery room; and
- xi) evaluation and management, during the pediatric intensive care experience, of patients following traumatic injury.

(b) Adolescent Medicine

The program must provide all residents with experience in adolescent medicine that will enable them to recognize normal and abnormal growth and development in adolescent patients. The experience must include, as a minimum, a 1-month block rotation to ensure a focused experience in the area of adolescent medicine. This experience must be supervised by faculty qualified to teach adolescent medicine.

The program must also provide the resident with an integrated experience that incorporates adolescent issues into ambulatory and inpatient experiences throughout the 3 years (e.g., inpatient unit, community settings, continuity clinic, and subspecialty rotations).

It must include instruction and experience in at least the following:

- i) normal pubertal growth and development and the associated physiologic and anatomic changes;
- ii) health promotion, disease prevention, and anticipatory guidance of adolescents;
- iii) common adolescent health problems, including chronic illness, sports-related issues, motor vehicle safety, and the effects of violence in conflict resolution;
- iv) interviewing the adolescent patient with attention to confidentiality, consent, and cultural background;
- v) psychosocial issues, such as peer and family relations, depression, eating disorders,

substance abuse, suicide, and school performance; and

- vi) male and female reproductive health, including sexuality, pregnancy, contraception, and STDs.

(c) Developmental/Behavioral Pediatrics

The program must provide all residents with an adequate experience in developmental/behavioral pediatrics to ensure that the resident recognizes normal and abnormal behavior, and understands child development from infancy through young adulthood. The experience must include, as a minimum, a 1-month block rotation that is a focused experience in behavioral/developmental pediatrics. The experience must be supervised by faculty qualified to teach developmental/behavioral pediatrics.

The program must educate the residents in the intrinsic and extrinsic factors that influence behavior to enable them to differentiate behavior that can and should be managed by the general pediatrician from behavior that warrants referral to other specialists. Clinical and didactic components of behavioral, psychosocial, and developmental pediatrics should be integrated, when possible, into the general educational program and into each patient encounter.

The program also must provide an integrated experience that incorporates behavioral and developmental issues into ambulatory and inpatient experiences throughout the 3 years (e.g., inpatient unit, community setting, continuity clinic, and subspecialty rotations). The program must include instruction in at least the following components to enable the residents to develop appropriate skills:

- i) normal and abnormal child behavior and development, including cognitive, language, motor, social, and emotional components;
- ii) family structure, adoption, and foster care;
- iii) interviewing parents and children;

- iv) psychosocial and developmental screening techniques;
- v) behavioral counseling and referral;
- vi) management strategies for children with developmental disabilities or special needs, within the context of the medical home;
- vii) needs of children at risk (e.g., those in poverty, from fragmented or substance abusing families, or victims of child abuse/neglect);
- viii) impact of chronic diseases, terminal conditions, and death on patients and their families; and
- ix) recognition and coordinating care for childhood and adolescent mental health problems that require referral for diagnosis and treatment.

(d) Additional Required Subspecialty Experience

Excluding the adolescent medicine, developmental/behavioral, and intensive care experiences (both NICU and PICU), the minimum time each resident must commit to subspecialty rotations is 7 months, 4 of which must be taken at the primary teaching site and/or integrated hospitals. Within these 7 months, each resident must complete a minimum of 4 different 1-month block rotations taken from the following list of pediatric subspecialties or closely allied specialties:

Allergy/Immunology	Infectious Diseases
Cardiology	Nephrology
Endocrinology	Neurology
Genetics	Pulmonary
Gastroenterology	Rheumatology
Hematology/Oncology	

For the 4 required block months in different subspecialties from the above list, the inpatient/outpatient mix should reflect the standard of practice for the subspecialty.

The additional 3 months may consist of single subspecialties or combinations of specialties from either the list above or the list below. Combinations of subspecialties may be structured as block or longitudinal experiences and, where appropriate, may be combinations of inpatient and outpatient experiences or all outpatient.

Pediatric Anesthesiology	Pediatric Otolaryngology
Child Psychiatry	Pediatric Radiology
Pediatric Dermatology	Pediatric Surgery
Pediatric Ophthalmology	Pediatric Physical
Pediatric Orthopaedics and Sports Medicine	Medicine and Rehabilitation

During the 3 years of training, no more than 3 block months, or its equivalent, may be spent by a resident in any one of these subspecialties. Subspecialty research electives that involve no clinical activities need not be counted as one of these 3 block months.

(e) Elective Experiences

Electives should be designed to enrich the educational experience of residents in conformity with their needs, interests, and/or future professional plans. Electives must be well-constructed, purposeful, and effective learning experiences, with written goals and objectives. The choice of electives must be made with the advice and approval of the Program Director and the appropriate preceptor.

(7) Didactic Experiences

Departmental conferences, including regular morbidity and mortality conferences, seminars, teaching rounds, and other structured educational experiences must be conducted on a regular basis and with sufficient frequency to fulfill educational goals. Reasonable requirements for resident attendance should be established for the various conferences; their attendance should be documented, and there must be appropriate faculty participation.

- b) didactic experiences to critically evaluate and apply current medical information and scientific evidence for patient care;

Faculty must document a resident's ability to access, appraise, and apply knowledge from the medical literature. Faculty evaluations must address the ability of residents to apply best medical evidence to the care of patients. Evaluation must be based on direct observation and precepting in a clinical setting.

In addition, the program must evaluate the competence of residents in performing an evidence-based exercise. This exercise may include, but is not limited to, a journal club presentation or other structured exercise in which best evidence is applied to a focused clinical question. The evaluation should be based on predetermined criteria.

### 3. PRACTICE-BASED LEARNING AND IMPROVEMENT

This involves the residents' investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and continuous improvements in patient care based on constant self-evaluation and life-long learning.

Each resident should demonstrate competence in the following elements of practice-based learning and improvement:

- a) taking primary responsibility for lifelong learning to improve knowledge, skills, and practice performance through familiarity with general and rotation specific goals and objectives and attendance at conferences;
- b) analyzing practice experience to recognize one's strengths, deficiencies, and limits in knowledge and expertise through participation in a quality improvement activity;
- c) using evaluations of performance provided by peers, patients, superiors, and junior colleagues to improve practice;
- d) locating, appraising, and assimilating evidence from scientific studies related to their patient's health problems;
- e) using information technology to optimize lifelong learning; and
- f) actively participating in the education of patients, families, students, residents and other health professionals, which should be documented by evaluations of a resident's teaching abilities by faculty and/or learners.

Documented meetings between an individual resident and mentor or advisor for purposes of feedback and guidance must occur at least twice a year. Documentation of an individual learning plan for each resident must occur annually.

#### 4. INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates.

Each resident should demonstrate competence in the following elements of interpersonal and communication skills:

- a) communicating effectively in a developmentally-appropriate manner with patients and families to create and sustain a professional and therapeutic relationship across a broad range of socioeconomic and cultural backgrounds;
- b) communicating effectively with physicians, other health professionals, and health related agencies;
- c) working effectively as a member or leader of a health care team or other professional group;
- d) acting in a consultative role to other physicians and health professionals; and
- e) maintaining comprehensive, timely, and legible medical records.

Teaching of this competency must begin with role modeling. Role modeling should be supplemented by direct observation of resident communication skills in real or simulated situations.

Written evaluations based on direct observation must document effective communication with patients/families, supervisors, fellow residents, allied health professionals, non-medical staff, and referring physicians. These assessments must address effective communication of health care information in the resident's role as primary caretaker, consultant, team member, and team leader as appropriate. Written evaluations of a resident's communication skills by patients/families and members of the health care team must also be sought.

In addition, the program must evaluate each resident's skill in written documentation and timely completion of medical records.

#### 5. PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity.

Each resident should demonstrate competence in the following elements of professionalism:

- a) demonstrating respect, compassion, integrity, and honesty; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession;
- b) demonstrating high standards of ethical behavior which include respect for patient privacy and autonomy, and maintaining appropriate professional boundaries;
- c) demonstrating sensitivity and responsiveness to a diverse patient population, including but not limited to, diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

The program must document teaching of this competency. This may consist of, but is not limited to, traditional lectures, case-based teaching modules, discussion of vignettes, or role playing exercises that address aspects of ethical and professional behavior.

Written evaluations of a resident's professional behavior by patients/families and members of the health care team based on direct observation must document elements of this competency.

Discussion of critical incidents (especially positive or negative behaviors) must be part of the ongoing mentoring of every resident.

## 6. SYSTEMS-BASED PRACTICE

This is manifested by actions that 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.

Each trainee should demonstrate competence in the following elements of systems-based practice:

- a) knowing how types of medical practice and delivery systems differ from one another, including methods of controlling health care cost, assuring quality, and allocating resources;
- b) practicing cost-effective health care and resource allocation that does not compromise quality of care;

Residents should learn to balance cost-effectiveness with quality of patient care. Discussions regarding these issues should be infused into the daily routine of patient care activities.

- c) advocating for quality patient care and assisting patients in dealing with system complexities;
- d) partnering with health care managers and health care providers to assess, coordinate, and improve health care;
- e) knowing how to advocate for the promotion of health and the prevention of disease and injury in populations; and
- f) acknowledging the importance of medical errors and examining systems to prevent them.

In order to prepare residents to operate within the health care delivery environment once training has been completed, the program must ensure structured educational experiences to address the following:

- patient advocacy within the system (understanding the epidemiology of major health problems and health literacy awareness in the community);
- risk management;
- cost effectiveness, balancing cost and quality;
- health care organization, financing, and practice management, including the organization and financing of health care services for children at the local, state, and national levels and the role of the pediatrician in the legislative process;
- the organization and financing of clinical practice, including personnel and business management, scheduling, billing and coding procedures, telephone and telemedicine management, and maintenance of an appropriate confidential patient record system; and
- systems approach to examining health care delivery practices, system errors and system solutions to error prevention.

The program must document teaching of this competency. These sessions may include, but are not limited to, traditional conferences or completion of case-based learning modules.

The program must also document experiential learning for the element that addresses the system causes of health care errors. Examples include, but are not limited to, a resident presentation at morbidity and mortality conference that focuses on potential system errors, or resident participation in an institutional process that identifies a system-based cause of an adverse patient outcome.

Faculty should assess resident progress in this domain. In addition, evaluations by other health professions must be obtained to assess residents' ability to function as part of an interdisciplinary team.

**C. Residents Scholarly Activities**

**Each program must provide an opportunity for residents to participate in research or other scholarly activities, and residents must participate actively in such scholarly activities.**

**D. ACGME Competencies**

**The residency program must require its residents to obtain competence in the six areas listed below to the level expected of a new practitioner. Programs must define the specific knowledge, skills, behaviors, and attitudes required, and provide educational experiences as needed in order for their residents to demonstrate the following:**

- 1. *Patient care* that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health;**
- 2. *Medical Knowledge* about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care;**
- 3. *Practice-based learning and improvement* that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care;**
- 4. *Interpersonal and communication skills* that result in the effective exchange of information and collaboration with patients, their families, and other health professionals;**
- 5. *Professionalism*, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds;**
- 6. *Systems-based practice*, as manifested by actions that 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.**

**VI. Resident Duty Hours and the Working Environment**

**Providing residents with a sound academic and clinical education must be carefully planned and balanced with concerns for patient safety and resident well-being. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on residents to fulfill service obligations.**

**Didactic and clinical education must have priority in the allotment of residents' time and energy. Duty hour assignments must recognize that faculty and residents collectively have responsibility for the safety and welfare of patients.**

**A. Supervision of Residents**

- 1. All patient care must be supervised by qualified faculty. The Program Director must ensure, direct, and document adequate supervision of residents at all times. Residents must be provided with rapid, reliable systems for communicating with supervising faculty. There must be a written document disseminated to residents and faculty which outlines the supervisory lines of responsibility.**
- 2. Faculty schedules must be structured to provide residents with continuous supervision and consultation.**
- 3. Faculty and residents must be educated to recognize the signs of fatigue and adopt and apply policies to prevent and counteract the potential negative effects.**

**B. Duty Hours**

- 1. Duty hours are defined as all clinical and academic activities related to the residency program, i.e., patient care (both inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled academic activities such as conferences. Duty hours do *not* include reading and preparation time spent away from the duty site.**
- 2. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.**
- 3. Residents must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. *One day* is defined as 1 continuous 24-hour period free from all clinical, educational, and administrative activities.**
- 4. Adequate time for rest and personal activities must be provided. This should consist of a 10 hour time period provided between all daily duty periods and after in-house call. The RRC will not consider requests for a rest period of fewer than 10 hours.**

**C. On-Call Activities**

**The objective of on-call activities is to provide residents with continuity of patient care experiences throughout a 24-hour period. *In-house call* is defined as those duty hours beyond the normal work day, when residents are required to be immediately available in the assigned institution.**

1. **In-house call must occur no more frequently than every third night, averaged over a four-week period.**
2. **Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to 6 additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics and maintain continuity of medical and surgical care.** While continuity of care remains a priority, morning and afternoon continuity clinics after residents have had a 24-hour duty period may be cancelled up to a frequency of 1 time per month (4 weeks) per resident. Post-call residents may not attend other clinics, such as subspecialty clinics.
3. **No new patients may be accepted after 24 hours of continuous duty.** *A new patient* is defined as any patient for whom the resident has not provided care during the previous 24 hour period, or who is not a part of the resident's continuity panel or the panel of the resident's continuity team, if such exists.
4. ***At-home call (pager call)* is defined as call taken from outside the assigned institution.**
  - a) **The frequency of at-home call is not subject to the every third night limitation. At-home call, however, must not be so frequent as to preclude rest and reasonable personal time for each resident. Residents taking at-home call must be provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period.**
  - b) **When residents are called into the hospital from home, the hours residents spend in-house are counted toward the 80-hour limit.**
  - c) **The Program Director and the faculty must monitor the demands of at-home call in their programs and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.**

**D. Moonlighting**

1. **Because residency education is a full-time endeavor, the Program Director must ensure that moonlighting does not interfere with the ability of the resident to achieve the goals and objectives of the educational program.**
2. **The Program Director must comply with the sponsoring institution's written policies and procedures regarding moonlighting, in compliance with the Institutional Requirements.**

3. Any hours a resident works for compensation at the sponsoring institution or any of the sponsor's primary clinical sites must be considered part of the 80-hour weekly limit on duty hours. This refers to the practice of *internal moonlighting*.

#### **E. Oversight**

1. Each program must have written policies and procedures consistent with the Institutional and Program Requirements for resident duty hours and the working environment. These policies must be distributed to the residents and the faculty. Duty hours must be monitored with a frequency sufficient to ensure an appropriate balance between education and service.
2. Back-up support systems must be provided when patient care responsibilities are unusually difficult or prolonged, or if unexpected circumstances create resident fatigue sufficient to jeopardize patient care.

#### **F. Duty Hours Exception**

An RRC may grant exceptions for up to 10% of the 80-hour limit, to individual programs based on a sound educational rationale. Prior permission of the institution's GMEC, however, is required. The RRC for Pediatrics will not consider requests for exceptions to the 80 hour limit to residents' work week.

### **VII. Evaluation**

#### **A. Resident**

##### **1. Formative Evaluation**

The faculty must evaluate in a timely manner the residents whom they supervise. In addition, the residency program must demonstrate that it has an effective mechanism for assessing resident performance throughout the program, and for utilizing the results to improve resident performance.

- a) Assessment should include the use of methods that produce an accurate assessment of residents' competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.
- b) Assessment should include the regular and timely performance feedback to residents that includes at least semiannual written evaluations. Such evaluations are to be communicated to each

resident in a timely manner, and maintained in a record that is accessible to each resident.

- c) **Assessment should include the use of assessment results, including evaluation by faculty, patients, peers, self, and other professional staff, to achieve progressive improvements in residents' competence and performance.**

## **2. Final Evaluation**

**The Program Director must provide a final evaluation for each resident who completes the program. This evaluation must include a review of the resident's performance during the final period of education, and should verify that the resident has demonstrated sufficient professional ability to practice competently and independently. The final evaluation must be part of the resident's permanent record maintained by the institution.**

### **B. Faculty**

**The performance of the faculty must be evaluated by the program no less frequently than at the midpoint of the accreditation cycle, and again prior to the next site visit. The evaluations should include a review of their teaching abilities, commitment to the educational program, clinical knowledge, and scholarly activities. This evaluation must include annual written confidential evaluations by residents.**

### **C. Program**

**The educational effectiveness of a program must be evaluated at least annually in a systematic manner.**

1. **Representative program personnel (i.e., at least the Program Director, representative faculty, and one resident) must be organized to review program goals and objectives, and the effectiveness with which they are achieved. This group must conduct a formal documented meeting at least annually for this purpose. In the evaluation process, the group must take into consideration written comments from the faculty, the most recent report of the GMEC of the sponsoring institution, and the residents' confidential written evaluations. If deficiencies are found, the group should prepare an explicit plan of action, which should be approved by the faculty and documented in the minutes of the meeting.**
2. **The program should use resident performance and outcome assessment in its evaluation of the educational effectiveness of the residency program. Performance of program graduates on the certification examination should be used as one measure of evaluating program effectiveness. The program should maintain a process for**

**using assessment results together with other program evaluation results to improve the residency program.**

D. RRC Evaluation

One outcome measure of the quality of a residency program is the performance of its graduates on the certifying examinations of the American Board of Pediatrics. In its evaluation of residency programs, the RRC will take into consideration the information provided by the American Board of Pediatrics regarding resident performance on the certifying examinations. A program will be judged deficient if, during the most recent 5 years, the rate of those passing the examination on their first attempt is less than 60% and/or if less than 80% of those completing the program take the certifying examination.

**VIII. Experimentation and Innovation**

**Since responsible innovation and experimentation are essential to improving professional education, experimental projects along sound educational principles are encouraged. Requests for experimentation or innovative projects that may deviate from the program requirements must be approved in advance by the RRC, and must include the educational rationale and method of evaluation. The sponsoring institution and program are jointly responsible for the quality of education offered to residents for the duration of such a project.**

**IX. Certification**

**Residents who plan to seek certification by the American Board of Pediatrics should communicate with the office of the board regarding the full requirements for certification.**

N.B.: Refer to the attached *Companion Document* that includes explanation and guidelines for documentation. Paragraphs are referenced to those in the *Program Requirements*.

ACGME: June 2005  
Effective Date: January 2006

# Companion Document

(Guidelines for documentation)

The revised Program Requirements document for Pediatrics reflects a transition from a process orientation to one of outcomes. In order to provide assistance to Program Directors, this Companion Document includes some explanation and guidelines for the types of documentation that will be expected. The numeric designations refer to sections in the Program Requirements.

## PATIENT CARE

For all elements of patient care, direct observation of a resident's skills is critically important.

### Section V. B. 1. a)

The history and physical examination serve as the basic foundation upon which all of clinical medicine is built. Programs must ensure that residents can perform a detailed and accurate history and physical examination appropriate for the context of the age and developmental level of the patient. In the initial stages of training, this should be demonstrated for patients with routine diagnoses. By the end of residency training, programs should document resident competence in history-taking and physical examination for any patient

### Section V. B. 1. a) (2)

To document the achievement of competence for this element of Patient Care, residents must be evaluated performing histories and physical examinations. This must be accomplished through direct faculty observation using a structured approach with different evaluators in different settings (e.g., documentation by the faculty in the adolescent clinic that a resident is capable of performing a pelvic exam). The structured approach should involve a written template that is distributed to faculty, and available for review by the site visitor, or by the RRC, if requested.

## MEDICAL KNOWLEDGE

### Section V. B. 2. b)

In addition to knowledge content, it is critical that residents demonstrate their ability to acquire and access new knowledge, interpret the evidence they uncover, and then apply it in the clinical setting. The program must document that a resident is able to do this, and that the faculty have a structured way of teaching and evaluating this element of medical knowledge. The required evidence-based exercise may take the form of a journal club, critically-appraised topic, educational prescription, etc. There should be a structured template with predetermined criteria to document the achievement of competence.

## PRACTICE-BASED LEARNING AND IMPROVEMENT

### Section V. B. 3

Reflection on one's practice, by identifying strengths and limitations, is the first step in practice improvement. The learner can then build on this reflective process by developing an individualized learning plan (e.g., documented personal learning objectives and strategies to achieve them). Bridging the transition from residency to the next career step requires an individualized learning plan that extends beyond residency. The "Resident Center" of PediaLink (AAP website) provides a mechanism for the trainee to document his or her learning plan. The "Program Director Center" provides a mechanism for the mentor and/or Program Director to review and update the learning plan with the resident, and serves as documentation that this process has occurred.

#### Section V. B. 3. a)

During training it is critical that programs foster self-directed learning so that this practice becomes a way of life as the resident evolves into an independent practitioner. The "Resident Center" of PediaLink also provides each resident with some self-assessment tools and the opportunity to complete PREP self-assessment questions. The "Program Director Center" provides data on a number of questions completed by each resident, and can be used as one measure of self-assessment.

#### Section V. B. 3. b) and c)

An ethos of ongoing reflection for the purpose of improved quality of care for patients should permeate every aspect of training to reinforce the need for trainees to adopt this practice as a lifelong habit. The critical steps to achieve competency in this domain involve self-assessment, feedback from others, reflection on feedback, and identification of strategies that will lead to improvement of future practice.

In order to identify personal and professional strengths and weaknesses, mentors must guide a resident in the ability to use self-assessment techniques, and in the analysis of events or critical incidents that exemplify particularly positive or negative behaviors.

Ongoing feedback is critical if one expects to meet a threshold for competence. The need for, and the role of, faculty mentors in providing guidance and feedback cannot be overemphasized. Written responsibilities and/or a checklist of items to be addressed during these meetings will be helpful to mentors and ensure a comprehensive semi-annual review of performance with the resident. In addition, feedback from a variety of evaluators allows a resident to gain an understanding of how their behaviors affect others with whom they interact. A resident should be encouraged to incorporate this feedback into strategies to improve future practice.

The program must document that a resident also acquires the skills needed to analyze and improve the quality of clinical practice. This may be accomplished by participation in a quality improvement project or activity (e.g., membership in an institutional quality improvement committee). Projects may involve teams of residents working in any clinical setting. The Plan-Do-Study-Act (PDSA) cycle described by Berwick, et al.,

which can be completed in a minimum of two week cycles, provides a method for meeting this requirement. For each resident in the most recent graduated class, there must be evidence of such activity.

#### Section V. B. 3. f)

Programs must provide a resident with excellent role models who demonstrate the value of teaching patients and families about preventive health care, and educating them about disease processes. Faculty should also model the teaching skills necessary to educate residents in a variety of teaching venues, such as small group seminars, large group lectures, and clinical precepting. These activities, including evaluation of a resident's teaching skills, should be documented.

### INTERPERSONAL AND COMMUNICATION SKILLS

#### Section V. B. 4

Effective written and verbal communication, including telephone triage, is critical to practicing the science of medicine; style of communication is critical to practicing the art of medicine. Both components should be addressed as part of residency training.

#### Section V. B. 4. a)

In the practice of pediatrics, the ability to communicate must not only extend to different cultural backgrounds and socioeconomic strata as in other disciplines, but also extend to different developmental levels. In order to be effective, the communication must target both the patient and the family. Perceptions by the patient and family of a resident's level of interest and concern will affect one's judgment as to the quality of care provided and the willingness to comply with recommendations. Engaging residents in interactive methods of learning such as role playing, review of videotapes, small group discussion of vignettes, etc., are particularly meaningful methods of teaching these skills.

#### Section V. B. 4. c)

The ability to function as part of a team is important in optimizing patient care since no one individual has all the needed expertise to attend to the medical, psychological, and social needs of patients. Teamwork during training also lays the groundwork for future collegial relationships in a primary care practice within a community or as a faculty member within a division and department of pediatrics. It is equally important to have team members (including the patient and family as part of the team) contribute to the assessment of a resident's communication skills, since the resident most likely will relate to each individual in a unique way.

## PROFESSIONALISM

### Section V. B. 5. b)

Medical ethics should be emphasized in the didactic curriculum and modeled by the faculty in clinical practice. This includes, but is not limited to, the ethical principles of medical practice and the ethical aspects of the relationship of the physician to their patients (e.g., initiating and discontinuing the treatment relationship, confidentiality, consent, issues of life-sustaining treatments, when to begin and stop resuscitation, legal and ethical issues in the end-of-life decision-making), as well as the relationship of the physician to the patients' families (e.g., the interdisciplinary management of the psychosocial concerns of the patients' families), and the relationship of other physicians and to society (e.g., the impaired physician, peer review, conflicts of interest, resource allocation, institutional ethics committees, and ethical issues in research). Reflection on the personal and professional impact of grief and loss should likewise be emphasized. Venues for teaching may be extended beyond the traditional lecture to include small group discussions of vignettes or case studies, computer-based modules, the use and review of appropriate journal entries regarding observations of professional behaviors, etc.

### Section V. B. 5. c)

The ability to demonstrate a knowledge, understanding, and acceptance of individual and cultural differences will promote greater trust on the part of the patient and a greater likelihood that the patient will reveal personal information that may be pertinent to his or her health conditions, management, and the ability to comply with prescribed therapies. There should be evidence of focused teaching of cultural competence within the departmental or institutional curricula.

## SYSTEMS-BASED PRACTICE

### Section V. B. 6. e)

In order to best serve a patient population, one must develop a familiarity with the natural history and epidemiology of major health problems in the community. A background understanding of cultural norms and health beliefs is also of crucial importance. Pediatricians should invest in the health literacy and awareness of the community served so that families can access, process, and understand health information to the extent that it allows for shared decision making about their health. This information becomes helpful in improving patient/family compliance as well.

### Section V. B. 6. f)

Programs must provide a safe environment that encourages practitioners to identify weaknesses deficiencies and errors. The optimal strategy for preventing errors is through development and implementation of system strategies and processes that are not subject to human error. Morbidity and mortality conferences provides an ideal venue for a formal approach to examination of system errors and solutions for correction and

prevention if the environment is safe and the interdisciplinary team that represents the system is involved. The educational leadership will need to work with faculty, to teach residents the importance of the perspective of examining the systems within which health care is delivered in order to prevent medical errors. A resident must have the opportunity to work with faculty to identify systems errors, develop and implement processes for correction, and measure the success of these efforts within a supportive environment.

## FACULTY DEVELOPMENT

The shift to a competency-based system of education highlights the need to educate not only learners, but also to educate faculty both to teach and to assess the performance of residents in achieving the 6 ACGME domains of competence. Faculty development for the major teaching faculty must go beyond attendance at an occasional formal lecture. The key faculty should be engaged in meaningful activities, such as curriculum development and/or workshops, in order to determine assessment processes and criteria for judging competence. Since new tools, beyond the global form, will be needed to assess competence, faculty should be educated in how to use these new methods in order to optimize the accuracy of resident assessment. Venues such as faculty meetings, curriculum meetings, etc., can serve as effective and efficient opportunities for providing ongoing faculty development.