

ACGME Program Requirements for Graduate Medical Education in Neurodevelopmental Disabilities

Common Program Requirements are in BOLD

Effective: July 1, 2007

Introduction

Int.A. Residency and fellowship programs are essential dimensions of the transformation of the medical student to the independent practitioner along the continuum of medical education. They are physically, emotionally, and intellectually demanding, and require longitudinally-concentrated effort on the part of the resident or fellow.

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

Int.B. Definition and Scope of the Specialty

The purpose of the training program is to prepare the physician for independent practice as a neurodevelopmental disabilities specialist. The training program must combine training in the relevant basic sciences with supervised clinical training in the diagnosis and care of children with neurodevelopmental disabilities.

Int.C. Duration and Scope of Education

Int.C.1. Training in neurodevelopmental disabilities must be preceded by successful completion of 24 months of training in a pediatric residency program accredited by the Accreditation Council for Graduate Medical Education (ACGME) in the United States or the Royal College of Physicians and Surgeons in Canada. The program director must review and approve the acceptability of these initial two years of training. This training should satisfy the requirements essential for board certification in

pediatrics by the American Board of Pediatrics or its equivalent.

Int.C.2. The length of the educational program is four years. One year of the training must be a year of training in clinical adult neurology. Eighteen months must be spent in training in clinical child neurology and neurodevelopmental disabilities and 18 months in clinical and basic science training. Training in adult and child neurology should take place at the primary clinical site where the neurodevelopmental disabilities program is conducted. It is important that clinical and basic science training are within the same institution.

Int.C.3. Any program that extends the length of training beyond four years must present an educational rationale that is consistent with the special requirements and the objectives for residency training. Approval for the extended curriculum must be obtained prior to implementation and at each subsequent review of the program.

Int.C.4. Prior to entry into the program, each fellow must be notified in writing of the required length of the program.

Int.D. Goals of Education

Programs must provide a broad educational experience in neurodevelopmental disabilities, which will prepare the fellow to function as a neurodevelopmental disabilities specialist capable of providing comprehensive patient care in academic or clinical practice settings. The curriculum must provide a strong scientific foundation that allows fellows to incorporate new developments in the basic sciences into their clinical practice. The clinical component in neurodevelopmental disabilities must also include supervised training that provides the fellows with increasing responsibility for outpatients and inpatients. This clinical training should lead to a defined level of clinical competence.

I. Institutions

I.A. Sponsoring Institution

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

The sponsoring institution and the program must ensure that the program director has sufficient protected time and financial support for his or her educational and administrative responsibilities to the program.

I.A.1. The four years of training in neurodevelopmental disabilities must take place in an institution in which there are accredited residency programs in child neurology, neurology, and pediatrics. The residency training program in neurodevelopmental disabilities must be within a department or division with an accredited program in neurology or pediatrics.

I.B. Participating Sites

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

The PLA should:

I.B.1.a) identify the faculty who will assume both educational and supervisory responsibilities for fellows;

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

I.B.1.c) specify the duration and content of the educational experience; and,

I.B.1.d) state the policies and procedures that will govern fellow education during the assignment.

I.B.2. The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all fellows, of one month full time equivalent (FTE) or more through the Accreditation Council for Graduate Medical Education (ACGME) Accreditation Data System (ADS).

I.B.3. It is desirable to have the training occur at a single site. If the resources of two or more sites are required to support the program, agreements must be developed by the sponsoring institution and participating sites as stated in the Institutional Requirements. The Review Committee must approve the participation by any site providing at least three months of the educational program. Participating sites should provide clinical resources not available to the sponsoring institution for the program. Such assignments should be limited to two sites. The experience in child neurology and in neurodevelopmental disabilities should be in one integrated program. Training in two separate sites will be allowed in unusual circumstances with the prior approval of the Review Committee.

I.B.3.a) Training in the sponsoring institution may be supplemented with training in no more than two additional, separate ACGME-accredited programs for periods of three months or more.

I.B.3.b) The primary teaching faculty must have fulltime status in the sponsoring institution.

II. Program Personnel and Resources

II.A. Program Director

II.A.1. There must be a single program director with authority and accountability for the operation of the program. The sponsoring

institution's GMEC must approve a change in program director. After approval, the program director must submit this change to the ACGME via the ADS.

- II.A.1.a) There must also be an associate program director whose training complements the multidisciplinary scope of the subspecialty.

- II.A.2. **The program director should continue in his or her position for a length of time adequate to maintain continuity of leadership and program stability.**

- II.A.3. **Qualifications of the program director must include:**

 - II.A.3.a) **requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee;**

 - II.A.3.b) **current certification in the specialty by the American Board of Psychiatry and Neurology or the American Board of Pediatrics, or specialty qualifications that are acceptable to the Review Committee; and,**

 - II.A.3.c) **current medical licensure and appropriate medical staff appointment.**

- II.A.4. **The program director must administer and maintain an educational environment conducive to educating the fellows in each of the ACGME competency areas. The program director must:**

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

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

 - II.A.4.c) **approve the selection of program faculty as appropriate;**

 - II.A.4.d) **evaluate program faculty and approve the continued participation of program faculty based on evaluation;**

 - II.A.4.e) **monitor fellow supervision at all participating sites;**

 - II.A.4.f) **prepare and submit all information required and requested by the ACGME, including but not limited to the program information forms and annual program fellow updates to the ADS, and ensure that the information submitted is accurate and complete;**

 - II.A.4.g) **provide each fellow with documented semiannual evaluation of performance with feedback;**

- II.A.4.h) ensure compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution;**
- II.A.4.i) provide verification of residency education for all fellows, including those who leave the program prior to completion;**
- II.A.4.j) implement policies and procedures consistent with the institutional and program requirements for fellow duty hours and the working environment, including moonlighting, and, to that end, must:**
 - II.A.4.j).(1) distribute these policies and procedures to the fellows and faculty;**
 - II.A.4.j).(2) monitor fellow duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements;**
 - II.A.4.j).(3) adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and,**
 - II.A.4.j).(4) if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue.**
- II.A.4.k) monitor the need for and ensure the provision of back up support systems when patient care responsibilities are unusually difficult or prolonged;**
- II.A.4.l) comply with the sponsoring institution's written policies and procedures, including those specified in the Institutional Requirements, for selection, evaluation and promotion of fellows, disciplinary action, and supervision of fellows;**
- II.A.4.m) be familiar with and comply with ACGME and Review Committee policies and procedures as outlined in the ACGME Manual of Policies and Procedures;**
- II.A.4.n) obtain review and approval of the sponsoring institution's GMEC/DIO before submitting to the ACGME information or requests for the following:**
 - II.A.4.n).(1) all applications for ACGME accreditation of new programs;**
 - II.A.4.n).(2) changes in fellow complement;**
 - II.A.4.n).(3) major changes in program structure or length of training;**

- II.A.4.n).(4) **progress reports requested by the Review Committee;**
- II.A.4.n).(5) **responses to all proposed adverse actions;**
- II.A.4.n).(6) **requests for increases or any change to fellow duty hours;**
- II.A.4.n).(7) **voluntary withdrawals of ACGME-accredited programs;**
- II.A.4.n).(8) **requests for appeal of an adverse action;**
- II.A.4.n).(9) **appeal presentations to a Board of Appeal or the ACGME; and,**
- II.A.4.n).(10) **proposals to ACGME for approval of innovative educational approaches.**

- II.A.4.o) **obtain DIO review and co-signature on all program information forms, as well as any correspondence or document submitted to the ACGME that addresses:**
 - II.A.4.o).(1) **program citations, and/or**
 - II.A.4.o).(2) **request for changes in the program that would have significant impact, including financial, on the program or institution.**

- II.A.4.p) ensure supervision of fellows through explicit written descriptions of supervisory lines of responsibility for patient care. Such guidelines must be communicated to all members of the program staff. Fellows must be provided with prompt, reliable systems for communication and interaction with supervisory physicians;
- II.A.4.q) ensure that all educational components of the residency program be related to program goals;
- II.A.4.r) together with the faculty, prepare and comply with written educational goals for the program;
- II.A.4.s) ensure that there is active participation of the teaching staff in clinical discussion, rounds and conferences in a manner that promotes a spirit of inquiry and scholarship. When on inpatient rotations the fellow must make rounds at least five days each week. The fellow must also take night call during the adult and child neurology training components;
- II.A.4.t) ensure that fellows regularly attend conferences in the following disciplines: child neurology, neurorehabilitation, neuropsychology, and clinical pharmacology. Fellows must attend and participate in periodic seminars, journal clubs, lectures, didactic courses, and

meetings of local and national neurological and neurodevelopmental societies. Fellows must be periodically responsible for the design and presentation of clinical conferences; and,

- II.A.4.u) ensure that attendance be documented for faculty and fellows at all of the conferences and didactic sessions that constitute the core requirements for training.

II.B. Faculty

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

The faculty must:

- II.B.1.a) devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities; and to demonstrate a strong interest in the education of fellows, and**
- II.B.1.b) administer and maintain an educational environment conducive to educating fellows in each of the ACGME competency areas.**

- II.B.2. The physician faculty must have current certification in the specialty by the American Board of Psychiatry and Neurology or the American Board of Pediatrics, or possess qualifications acceptable to the Review Committee.**

- II.B.2.a) In addition to the program director, the faculty must include at least two full-time faculty members who have appropriate educational qualifications in neurodevelopmental disabilities.

- II.B.2.b) Additional faculty must include specialists in the following medical and allied health specialties: dentistry, genetics, neonatology, neurology, neurological surgery, ophthalmology, orthopaedic surgery, otolaryngology, pediatrics and its related subspecialties, physical medicine and rehabilitation, psychiatry, and child and adolescent psychiatry. Allied health and non-medical disciplines that must be made available to the fellow include: audiology, nutrition, occupational therapy, physical therapy, neuropsychology, speech pathology, special and early education, social work, and vocational rehabilitation.

- II.B.3. The physician faculty must possess current medical licensure and appropriate medical staff appointment.**

- II.B.4. The nonphysician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments.**

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

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

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

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

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

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

II.B.5.b).(4) participation in national committees or educational organizations.

II.B.5.c) Faculty should encourage and support fellows in scholarly activities.

This activity should include:

II.B.5.c).(1) Participation in clinical and basic science teaching in a manner that promotes a spirit of inquiry and scholarship. Scholarship implies an in-depth understanding of basic mechanisms of normal and abnormal states and the application of current knowledge to practice, and

II.B.5.c).(2) Provision for opportunities for training in outcome research.

II.B.5.d) Faculty must supervise and provide feedback to fellows during fellow-run conferences, and indicate areas of weakness or need for further educational skills development.

II.C. Other Program Personnel

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

II.D. Resources

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

II.D.1. The sponsoring institution's facilities and resources must provide

sufficient space and appropriate equipment as well as an adequate number and variety of patients to support the specialty education program. In particular, there must be adequate space for the educational program, including meeting rooms; classrooms with audiovisual and other educational aids; free space for staff; pertinent library materials; and diagnostic, therapeutic, and research facilities.

- II.D.1.a) There must be a sufficient number of examining rooms, conference rooms, and research laboratories.
- II.D.1.b) The inpatient and outpatient facilities must be adequate in size and diversity and must have the appropriate equipment necessary for a broad education in pediatrics and in neurology.
- II.D.1.c) The institution must provide access to diagnostic and therapeutic equipment used in the diagnosis and treatment of children with neurodevelopmental disabilities. There must be adequate clinical laboratory facilities that rapidly report the results of necessary laboratory evaluations including clinical, pathological, electrophysiological, imaging, and other studies needed by the neurological and pediatric services.
- II.D.1.d) Adequate chart and record keeping systems must be in place for patient treatment and evaluation.
- II.D.1.e) Programs must provide fellows with patient care experiences in both the inpatient and outpatient settings. A sufficient number, variety, and complexity of patients ranging in age from infancy through adulthood must be present. The patient population must also be diversified with regard to long term and short-term neurological and developmental disorders.
- II.D.1.f) The fellow must have primary care or consulting responsibilities for hospitalized patients with neurological disorders and neurodevelopmental disabilities. The fellow must be involved with the management of patients with neurological disorders who require emergency care. Adequate numbers of new and follow-up subspecialty outpatients must be available to provide a broad experience in the subspecialty. The program must maintain an appropriate balance among the numbers and varieties of patients, numbers of preceptors, and the number of subspecialty fellows in the program.
- II.D.1.g) On-call rooms arranged to permit adequate rest and privacy should be available for each fellow on night duty in the hospital. There should be adequate back-up support if needed to maintain appropriate patient care

II.E. Medical Information Access

Fellows must have ready access to specialty-specific and other appropriate

reference material in print or electronic format. Electronic medical literature databases with search capabilities should be available.

III. Fellow Appointments

III.A. Eligibility Criteria

The program director must comply with the criteria for fellow eligibility as specified in the Institutional Requirements.

III.B. Number of Fellows

The program director may not appoint more fellows than approved by the Review Committee, unless otherwise stated in the specialty-specific requirements. The program's educational resources must be adequate to support the number of fellows appointed to the program.

III.C. Fellow Transfers

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

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

III.D. Appointment of Fellows and Other Learners

The presence of other learners (including, but not limited to, residents from other specialties, subspecialty fellows, PhD students, and nurse practitioners) in the program must not interfere with the appointed fellows' education. The program director must report the presence of other learners to the DIO and GMEC in accordance with sponsoring institution guidelines.

III.D.1. The appointment of other residents requires a clear statement of the areas of training, clinical responsibilities, and duration of the special education. This statement must be supplied to the Review Committee at the time the program is site visited.

III.D.2. If, in the judgment of the Review Committee, such residents will detract from the education of the regularly appointed neurodevelopmental disabilities fellows, the accreditation status of the program may be adversely affected.

IV. Educational Program

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

IV.A.1. Overall educational goals for the program, which the program must

distribute to fellows and faculty annually;

IV.A.2. Competency-based goals and objectives for each assignment at each educational level, which the program must distribute to fellows and faculty annually, in either written or electronic form. These should be reviewed by the fellow at the start of each rotation;

IV.A.3. Regularly scheduled didactic sessions;

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

IV.A.5. ACGME Competencies

The program must integrate the following ACGME competencies into the curriculum:

IV.A.5.a) Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows:

IV.A.5.a).(1) must have one year of adult neurology. This component must include care for some adults with chronic neurodevelopmental disabilities who are in a continuity clinic;

IV.A.5.a).(2) must have 18 months of clinical child neurology and neurodevelopmental disabilities. This component must include not only training in the neurodevelopmental disabilities encountered by a child neurologist but also training in a multidisciplinary team approach to children with chronic neurological disabilities;

IV.A.5.a).(3) must have adequate training in neurodevelopmental disabilities, which requires that at least 50% of the fellow's patient encounters are pediatric patients with neurodevelopmental disabilities;

IV.A.5.a).(4) must have training in the multidisciplinary team approach of at least one month's full-time equivalent duration;

IV.A.5.a).(5) must have 18 months of clinical and basic science training: This component must include at least one month full-time equivalent experience in each of the following: child and adolescent psychiatry, neurological surgery and neurorehabilitation. The fellow must also gain significant clinical experience with behavioral neurology, neurogenetics/metabolism, neuromuscular disorders,

neuro-oncology, and neuro-ophthalmology. Included in this time must be at least six months of elective time;

IV.A.5.a).(6)

must have clinical training in comprehensive neurodevelopmental curriculum. This includes exposure to all age groups and degrees of disability. While the focus is on learning principles of patient management, other foci include screening, assessment, diagnosis, interdisciplinary interaction, and advocacy. Training must be in outpatient and inpatient settings, and must include diagnostic assessment and management of the entire spectrum of neurodevelopmental disabilities. The trainee must have the opportunity to act as a neurodevelopmental pediatric consultant in developmental disabilities of other medical and non-medical disciplines in inpatient, outpatient, and community settings;

IV.A.5.a).(7)

will follow inpatient cases during the duration of their hospital stay or the duration of the fellow rotation. Fellows will follow outpatients in a continuity clinic throughout the duration of their training period. This experience should include adults and children who are followed in the continuity clinic;

IV.A.5.a).(8)

must see patients, both on the inpatient and outpatient services, in conjunction with a faculty attending. The attending may briefly precept patients well known to the fellow;

IV.A.5.a).(9)

must have increasing responsibility to allow for professional maturity. Early clinical assignments must be based on direct patient responsibility for a limited number of patients. Subsequent assignments must place the fellow in a position of taking increased responsibility for patients in a way that corresponds to each fellow's knowledge, manual skill, experience, and the complexity of the patient's illness; such assignments should enable the fellow to gradually develop a liaison relationship with staff and referring physicians; and,

IV.A.5.a).(10)

must receive instruction in multidisciplinary management of children with neurodevelopmental disabilities. The fellow must participate in team management of children in a variety of circumstances including developmental assessment, pediatric rehabilitation, and team management of children with developmental defects.

IV.A.5.b)

Medical Knowledge

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-

behavioral sciences, as well as the application of this knowledge to patient care. Fellows:

- IV.A.5.b).(1) must obtain an adequate background in those basic sciences upon which child neurology and neurodevelopment are founded. This includes neuroanatomy, neuroembryology, neural development, neuropathology, basic neurophysiology, neuroimaging, neuropsychology, neurochemistry, neuropharmacology, molecular biology, genetics, immunology, epidemiology, and biostatistics;
- IV.A.5.b).(2) must learn the fundamentals of specific diagnostic and management strategies of the major neurodevelopmental disabilities. This includes, but is not limited to cognitive disorders (mental retardation, learning disabilities, progressive encephalopathies), communication disorders, neurobehavioral disorders (autistic spectrum disorders), motor disabilities (cerebral palsy, neuromuscular and other neuromotor disorders, movement disorders, including Tourette syndrome), sensory disorders (visual and auditory disorders), and multiple disabilities;
- IV.A.5.b).(3) must learn the appropriate instruments for neuropsychological assessment and understand how to apply developmental measurements and scales;
- IV.A.5.b).(4) must become familiar with anticipatory guidance and counseling of families with children who have developmental disabilities;
- IV.A.5.b).(5) must learn strategies for pharmacological and non-pharmacological management of self-injurious and other troublesome behaviors;
- IV.A.5.b).(6) must learn the skills for the management of spasticity or other movement disorders. This must include some training in the technical skills needed to manage such patients;
- IV.A.5.b).(7) must learn how to secure, organize, and manage patient resources and treatment; and,
- IV.A.5.b).(8) must receive instruction in the bioethics and economics of medicine. The fellow must also receive instruction in appropriate and compassionate methods of end-of-life palliative care.

IV.A.5.c)

Practice-based Learning and Improvement

Fellows must demonstrate the ability to investigate and

evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Fellows are expected to develop skills and habits to be able to meet the following goals:

- IV.A.5.c).(1) identify strengths, deficiencies, and limits in one's knowledge and expertise;**
- IV.A.5.c).(2) set learning and improvement goals;**
- IV.A.5.c).(3) identify and perform appropriate learning activities;**
- IV.A.5.c).(4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;**
- IV.A.5.c).(5) incorporate formative evaluation feedback into daily practice;**
- IV.A.5.c).(6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;**
- IV.A.5.c).(7) use information technology to optimize learning; and,**
- IV.A.5.c).(8) participate in the education of patients, families, students, residents and other health professionals.**
- IV.A.5.c).(9) have structured opportunities throughout their training to develop and improve teaching skills. These activities should include the supervision of more junior trainees, as well as the teaching of other residents, medical students, nurses, and other health care professionals, either formally or informally.**

IV.A.5.d) Interpersonal and Communication Skills

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Fellows are expected to:

- IV.A.5.d).(1) communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;**
- IV.A.5.d).(2) communicate effectively with physicians, other health professionals, and health related agencies;**
- IV.A.5.d).(3) work effectively as a member or leader of a health care**

- team or other professional group;
- IV.A.5.d).(4) act in a consultative role to other physicians and health professionals; and,
- IV.A.5.d).(5) maintain comprehensive, timely, and legible medical records, if applicable.
- IV.A.5.e) **Professionalism**
- Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Fellows are expected to demonstrate:
- IV.A.5.e).(1) compassion, integrity, and respect for others;
- IV.A.5.e).(2) responsiveness to patient needs that supersedes self-interest;
- IV.A.5.e).(3) respect for patient privacy and autonomy;
- IV.A.5.e).(4) accountability to patients, society and the profession; and,
- IV.A.5.e).(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- IV.A.5.f) **Systems-based Practice**
- Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Fellows are expected to:
- IV.A.5.f).(1) work effectively in various health care delivery settings and systems relevant to their clinical specialty;
- IV.A.5.f).(2) coordinate patient care within the health care system relevant to their clinical specialty;
- IV.A.5.f).(3) incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;
- IV.A.5.f).(4) advocate for quality patient care and optimal patient care systems;

- IV.A.5.f).(5) **work in interprofessional teams to enhance patient safety and improve patient care quality; and,**
- IV.A.5.f).(6) **participate in identifying system errors and implementing potential systems solutions.**
- IV.A.5.f).(7) participate in activities that provide experience and training in public advocacy and community consultation.

IV.B. Fellows' Scholarly Activities

- IV.B.1. **The curriculum must advance fellows' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.**
- IV.B.2. **Fellows should participate in scholarly activity.**
- IV.B.3. **The sponsoring institution and program should allocate adequate educational resources to facilitate fellow involvement in scholarly activities.**

V. Evaluation

V.A. Fellow Evaluation

V.A.1. Formative Evaluation

- V.A.1.a) **The faculty must evaluate fellow performance in a timely manner during each rotation or similar educational assignment, and document this evaluation at completion of the assignment.**
- V.A.1.b) **The program must:**
 - V.A.1.b).(1) **provide objective assessments of competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice;**
 - V.A.1.b).(2) **use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff);**
 - V.A.1.b).(3) **document progressive fellow performance improvement appropriate to educational level; and,**
 - V.A.1.b).(4) **provide each fellow with documented semiannual evaluation of performance with feedback.**
- V.A.1.c) **The evaluations of fellow performance must be accessible for review by the fellow, in accordance with institutional policy.**

V.A.1.d) Plans to correct any deficiencies must be discussed. Each fellow must be an active participant in formulating plans for his or her development. Evaluation data should be used to advise the fellow and to make decisions regarding the progression in the fellow's level of responsibility. The evaluation data must include the results from annual objective written or clinical assessments of the fellow's knowledge and skills.

V.A.1.e) The assessment must specify how the acquisition of requisite skills for subspecialty competence is accomplished.

V.A.1.f) A written record of the contents of the semiannual review session must be prepared and filed in the fellow's permanent record. The fellow must sign the written record of the evaluation and review. The fellow must have the opportunity to append a written response to the written record of the evaluation and review.

V.A.2. Summative Evaluation

The program director must provide a summative evaluation for each fellow upon completion of the program. This evaluation must become part of the fellow's permanent record maintained by the institution, and must be accessible for review by the fellow in accordance with institutional policy. This evaluation must:

V.A.2.a) document the fellow's performance during the final period of education, and

V.A.2.b) verify that the fellow has demonstrated sufficient competence to enter practice without direct supervision.

V.A.2.b).(1) Written record of evaluations must be maintained, must be formally reviewed with the subspecialty fellow, and must be accessible to authorized personnel. The fellow should be advanced to positions of higher responsibility only on the basis of evidence that there is satisfactory progressive scholarship and professional growth.

V.A.2.b).(2) Each fellow's permanent record must include written evaluations completed for the defined educational experience, the written records from the semiannual reviews, the results of formal assessments, and the fellow's final evaluation. Written descriptions of any deficiencies in problem areas, plans for the correcting the deficiencies, disciplinary actions, and commendations, where appropriate, should be included.

V.B. Faculty Evaluation

V.B.1. At least annually, the program must evaluate faculty performance as

it relates to the educational program.

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

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

V.B.4. The faculty should receive formal feedback from these evaluations.

V.C. Program Evaluation and Improvement

V.C.1. The program must document formal, systematic evaluation of the curriculum at least annually. The program must monitor and track each of the following areas:

V.C.1.a) fellow performance;

V.C.1.b) faculty development;

V.C.1.c) graduate performance, including performance of program graduates on the certification examination; and,

V.C.1.d) program quality. Specifically:

V.C.1.d).(1) Fellows and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and

V.C.1.d).(2) The program must use the results of fellows' assessments of the program together with other program evaluation results to improve the program.

V.C.1.d).(3) The faculty must be organized and have regular documented meetings to review program goals and objectives as well as program effectiveness in achieving them. At least one fellow representative should participate in these reviews.

V.C.1.d).(4) The annual review and evaluation of the program in relation to the educational goals, the quality of the curriculum, the needs of the subspecialty fellows, and the clinical and research responsibilities of the faculty must be documented. At least one subspecialty fellow representative should participate in the periodic and annual reviews.

V.C.2. If deficiencies are found, the program should prepare a written plan of action to document initiatives to improve performance in the areas listed in section V.C.1. The action plan should be reviewed

and approved by the teaching faculty and documented in meeting minutes.

VI. Fellow Duty Hours in the Learning and Working Environment

VI.A. Professionalism, Personal Responsibility, and Patient Safety

VI.A.1. Programs and sponsoring institutions must educate fellows and faculty members concerning the professional responsibilities of physicians to appear for duty appropriately rested and fit to provide the services required by their patients.

VI.A.2. The program must be committed to and responsible for promoting patient safety and fellow well-being in a supportive educational environment.

VI.A.3. The program director must ensure that fellows are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.

VI.A.4. The learning objectives of the program must:

VI.A.4.a) be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; and,

VI.A.4.b) not be compromised by excessive reliance on fellows to fulfill non-physician service obligations.

VI.A.5. The program director and institution must ensure a culture of professionalism that supports patient safety and personal responsibility. Fellows and faculty members must demonstrate an understanding and acceptance of their personal role in the following:

VI.A.5.a) assurance of the safety and welfare of patients entrusted to their care;

VI.A.5.b) provision of patient- and family-centered care;

VI.A.5.c) assurance of their fitness for duty;

VI.A.5.d) management of their time before, during, and after clinical assignments;

VI.A.5.e) recognition of impairment, including illness and fatigue, in themselves and in their peers;

VI.A.5.f) attention to lifelong learning;

VI.A.5.g) the monitoring of their patient care performance improvement

indicators; and,

VI.A.5.h) honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.

VI.A.6. All fellows and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. Physicians must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

VI.B. Transitions of Care

VI.B.1. Programs must design clinical assignments to minimize the number of transitions in patient care.

VI.B.2. Sponsoring institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.

VI.B.3. Programs must ensure that fellows are competent in communicating with team members in the hand-over process.

VI.B.4. The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and fellows currently responsible for each patient's care.

VI.C. Alertness Management/Fatigue Mitigation

VI.C.1. The program must:

VI.C.1.a) educate all faculty members and fellows to recognize the signs of fatigue and sleep deprivation;

VI.C.1.b) educate all faculty members and fellows in alertness management and fatigue mitigation processes; and,

VI.C.1.c) adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning, such as naps or back-up call schedules.

VI.C.2. Each program must have a process to ensure continuity of patient care in the event that a fellow may be unable to perform his/her patient care duties.

VI.C.3. The sponsoring institution must provide adequate sleep facilities and/or safe transportation options for fellows who may be too fatigued to safely return home.

VI.D. Supervision of Fellows

- VI.D.1.** In the clinical learning environment, each patient must have an identifiable, appropriately-credentialed and privileged attending physician (or licensed independent practitioner as approved by each Review Committee) who is ultimately responsible for that patient's care.
- VI.D.1.a)** This information should be available to fellows, faculty members, and patients.
- VI.D.1.b)** Fellows and faculty members should inform patients of their respective roles in each patient's care.
- VI.D.2.** The program must demonstrate that the appropriate level of supervision is in place for all fellows who care for patients.
- Supervision may be exercised through a variety of methods. Some activities require the physical presence of the supervising faculty member. For many aspects of patient care, the supervising physician may be a more advanced resident or fellow. Other portions of care provided by the fellow can be adequately supervised by the immediate availability of the supervising faculty member or fellow physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of fellow-delivered care with feedback as to the appropriateness of that care.
- VI.D.3.** Levels of Supervision
- To ensure oversight of fellow supervision and graded authority and responsibility, the program must use the following classification of supervision:
- VI.D.3.a)** Direct Supervision – the supervising physician is physically present with the fellow and patient.
- VI.D.3.b)** Indirect Supervision:
- VI.D.3.b).(1)** with direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
- VI.D.3.b).(2)** with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
- VI.D.3.c)** Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided

after care is delivered.

VI.D.4. The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each fellow must be assigned by the program director and faculty members.

VI.D.4.a) The program director must evaluate each fellow's abilities based on specific criteria. When available, evaluation should be guided by specific national standards-based criteria.

VI.D.4.b) Faculty members functioning as supervising physicians should delegate portions of care to fellows, based on the needs of the patient and the skills of the fellows.

VI.D.4.c) Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow.

VI.D.5. Programs must set guidelines for circumstances and events in which fellows must communicate with appropriate supervising faculty members, such as the transfer of a patient to an intensive care unit, or end-of-life decisions.

VI.D.5.a) Each fellow must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence.

VI.D.5.a).(1) In particular, PGY-1 residents should be supervised either directly or indirectly with direct supervision immediately available.

VI.D.6. Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each fellow and delegate to him/her the appropriate level of patient care authority and responsibility.

VI.E. Clinical Responsibilities

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

VI.F. Teamwork

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

VI.G. Fellow Duty Hours

VI.G.1. Maximum Hours of Work per Week

Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting.

VI.G.1.a) Duty Hour Exceptions

A Review Committee may grant exceptions for up to 10% or a maximum of 88 hours to individual programs based on a sound educational rationale.

The Review Committee for Neurology will not consider requests for exceptions to the 80-hour limit to the fellows' work week.

VI.G.1.a).(1) In preparing a request for an exception the program director must follow the duty hour exception policy from the ACGME Manual on Policies and Procedures.

VI.G.1.a).(2) Prior to submitting the request to the Review Committee, the program director must obtain approval of the institution's GMEC and DIO.

VI.G.2. Moonlighting

VI.G.2.a) Moonlighting must not interfere with the ability of the fellow to achieve the goals and objectives of the educational program.

VI.G.2.b) Time spent by fellows in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit.

VI.G.2.c) PGY-1 residents are not permitted to moonlight.

VI.G.3. Mandatory Time Free of Duty

Fellows must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days.

VI.G.4. Maximum Duty Period Length

VI.G.4.a) Duty periods of PGY-1 residents must not exceed 16 hours in duration.

VI.G.4.b) Duty periods of PGY-2 residents and above may be scheduled to a maximum of 24 hours of continuous duty in the hospital. Programs must encourage fellows to use

alertness management strategies in the context of patient care responsibilities. Strategic napping, especially after 16 hours of continuous duty and between the hours of 10:00 p.m. and 8:00 a.m., is strongly suggested.

VI.G.4.b).(1) It is essential for patient safety and fellow education that effective transitions in care occur. Fellows may be allowed to remain on-site in order to accomplish these tasks; however, this period of time must be no longer than an additional four hours.

VI.G.4.b).(2) Fellows must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.

VI.G.4.b).(3) In unusual circumstances, fellows, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family.

VI.G.4.b).(3).(a) Under those circumstances, the fellow must:

VI.G.4.b).(3).(a).(i) appropriately hand over the care of all other patients to the team responsible for their continuing care; and,

VI.G.4.b).(3).(a).(ii) document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.

VI.G.4.b).(3).(b) The program director must review each submission of additional service, and track both individual fellow and program-wide episodes of additional duty.

VI.G.5. Minimum Time Off between Scheduled Duty Periods

VI.G.5.a) PGY-1 residents should have 10 hours, and must have eight hours, free of duty between scheduled duty periods.

VI.G.5.b) Intermediate-level residents should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

R1 and R2 fellows are considered to be at the intermediate level.

VI.G.5.c) Residents in the final years of education must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.

R3 and R4 fellows are considered to be in the final years of education.

VI.G.5.c).(1) This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in-seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances when these fellows must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

VI.G.5.c).(1).(a) Circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by residents in their final years of education must be monitored by the program director.

VI.G.5.c).(1).(b) The Review Committee defines such circumstances as: required continuity of care for a severely ill or unstable patient, or a complex patient with whom the fellow has been involved; events of exceptional educational value; or, humanistic attention to the needs of a patient or family.

VI.G.6. Maximum Frequency of In-House Night Float

Fellows must not be scheduled for more than six consecutive nights of night float.

VI.G.6.a) Fellows should not have more than two consecutive weeks of night call, and no more than six weeks of night call per year.

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

PGY-2 residents and above must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).

VI.G.8. At-Home Call

VI.G.8.a) Time spent in the hospital by fellows on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.

VI.G.8.a).(1) At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each fellow.

VI.G.8.b) Fellows are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.

VII. Innovative Projects

Requests for innovative projects that may deviate from the institutional, common and/or specialty specific program requirements must be approved in advance by the Review Committee. In preparing requests, the program director must follow Procedures for Approving Proposals for Innovative Projects located in the ACGME Manual on Policies and Procedures. Once a Review Committee approves a project, the sponsoring institution and program are jointly responsible for the quality of education offered to fellows for the duration of such a project.

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