

Neurocritical Care Program Requirements

Neurocritical Care Program Requirements

The common program requirements are standards required of accredited programs in all UCNS subspecialties. They are shown in **bold** typeface below. Requirements in regular typeface are defined by each subspecialty.

I. Introduction

A. The medical subspecialty of Neurocritical Care is devoted to the comprehensive multisystem care of the critically ill neurological patient. Like other intensivists, the neurointensivist assumes the primary care role for his or her patients in the ICU, coordinating both the neurological and medical management of the patient. Hence, the *Neurocritical Care Core Curriculum* is evenly split between neurological and medical diseases and conditions, and fellowship training should include rotations through non-neurological ICUs. Most uniquely, Neurocritical Care is concerned with the interface between the central and peripheral nervous system and other organ systems in the setting of critical illness.

The neurointensivist defragments and harmonizes the care of his or her patients by taking responsibility for various elements of ICU care that might otherwise be provided by multiple subspecialists (i.e., cardiology, endocrinology, infectious diseases, pulmonary medicine, and neurology). Expertise in Neurocritical Care involves procedural skills and proficiency with standard forms of ICU monitoring (i.e., cardiovascular hemodynamic monitoring and mechanical ventilation) as well as specialized forms of neurological monitoring (i.e., ICP and continuous EEG monitoring) and interventions (i.e., hypertensive hypervolemic therapy, therapeutic hypothermia). The neurointensivist works closely with neurosurgeons, neuroradiologists, neurologists, emergency medicine, and other medical and surgical subspecialists, as well as with nurses and other care providers in an environment that fosters multi-disciplinary collaboration. The ultimate goal of clinical care is to resuscitate and support the acutely ill neurological patient, provide appropriate therapies to treat the primary injury, minimize secondary neurological injury and medical complications, and expedite and facilitate the patient's transition to a recovery environment.

The training program must exist in the context of a team of critical care physicians who provide comprehensive and around-the-clock ICU coverage to a specified population of critically ill neurological patients. This may occur in a dedicated neurocritical care unit, or in the setting of a larger medical-surgical ICU.

B. Purpose of the Training Program

- The purpose of the training program is to prepare the physician for independent practice in Neurocritical Care. This training must be based on supervised clinical work with increasing patient care responsibilities and transition to independent practice over the course of the training program.
- 2. The program must require its fellows to obtain competencies in the six core competency areas defined by the Accreditation Council for Graduate Medical Education (ACGME). It is the responsibility of the program to provide precise definitions of specific knowledge, skills, and behaviors, as well as educational opportunities in which the fellow must demonstrate competence in those areas.

The program's curricular goals and objectives must correlate to the appropriate ACGME Core Competencies and global learning objectives.

C. The purpose of the training program is to prepare the physician for the independent practice of Neurocritical Care. This training must be based on supervised clinical work, with increasing patient care responsibility and transition to independent practice over the course of the training program. It must have a foundation of organized instruction in basic elements of both neurological and medical aspects of critical care.

II. Institutional Support

There are three types of institutions that may comprise a program: 1) the sponsoring institution, which assumes ultimate responsibility for the program and is required of all programs, 2) the primary institution, which is the primary clinical training site and may or may not be the sponsoring institution, and 3) the participating institution, which provides required experience that cannot be obtained at the primary or sponsoring institutions.

A. Sponsoring Institution

- 1. The sponsoring institution must be accredited by the ACGME or Canadian Excellence in Residency Accreditation (CanERA), formerly the Royal College of Physicians and Surgeons of Canada (RCPSC) and meet the current ACGME Institutional Requirements or CanERA General Standards of Accreditation for Institutions with Residency Programs. This responsibility extends to fellow assignments at all primary and participating institutions. The sponsoring institution must be appropriately organized for the conduct of graduate medical education (GME) in a scholarly environment and must be committed to excellence in both medical education and patient care.
- 2. A letter demonstrating the sponsoring institution's responsibility for the program must be submitted. The letter must:
 - a) confirm sponsorship and oversight of the training program's GME activities,
 - state the sponsoring institution's commitment to training and education, which includes the resources provided by the sponsoring institution, the primary institution, and/or the departments that support the program director's fulfillment of his or her duties as described in these program requirements, and
 - c) be signed by the designated institution official of the institution as defined by ACGME or postgraduate dean as defined by CanERA.
- 3. Institutional support and oversight are further demonstrated by the required designated institution official/postgraduate dean signature on all program accreditation and reaccreditation applications and annual report submissions.

B. Primary Institution

- Assignments at the primary institution must be of sufficient duration to
 ensure a quality educational experience and must provide sufficient
 opportunity for continuity of care. The primary institution must demonstrate
 the ability to promote the overall program goals and support educational and
 peer activities.
- 2. A letter from the appropriate department chair(s) at the primary institution must be submitted. The letter must:
 - a) confirm the relationship of the primary institution to the program,
 - b) state the primary institution's commitment to training and education, and

c) list specific activities that will be undertaken, supported, and supervised at the primary institution.

C. Participating Institutions

- 1. Assignments to participating institutions must be based on a clear educational rationale, must have clearly stated learning objectives and activities, and should provide resources not otherwise available to the program. When multiple participating institutions are used, there should be assurance of the continuity of the educational experience. Each participating institution should have a local site director who is responsible for the supervision of the educational program at the participating institution. This individual reports to the program director and must meet the requirements of a core faculty member.
- 2. Assignments at participating institutions must be of sufficient duration to ensure a quality educational experience and should provide sufficient opportunity for continuity of care. All participating institutions must demonstrate the ability to promote the overall program goals and support educational and peer activities.
- 3. If a participating institution is used, a participating institution letter must be submitted. The letter must:
 - a) confirm the relationship of the participating institution to the program,
 - b) state the participating institution's commitment to training and education,
 - c) list specific activities that will be undertaken, supported, and supervised at the participating institution, and
 - d) be signed by the appropriate official, e.g., department chair or medical director, of the participating institution.

III. Facilities and Resources

- A. Each program must demonstrate that it possesses the facilities and resources necessary to support a quality educational experience.
 - 1. Additional professional, technical, and administrative personnel must be provided to adequately support the fellowship training program in attaining its educational and administrative goals.
 - 2. In programs not situated in a department of neurology, evidence must be provided that demonstrates fellows have access to neurological services for the care of patients in Neurocritical Care. There must be an adequate number and variety of patients to expose fellows to the broad spectrum of diseases that occur in critically ill neurological patients. Fellows must gain direct exposure to the most common neurological conditions listed in Sections I. and II. of the Neurocritical Care Core Curriculum.
 - 3. There must be adequate space and equipment for the educational program, including meeting rooms, classrooms with audiovisual and other educational aids, office space for staff and fellows, and access to pertinent reference materials. The ICU environment must contain the necessary diagnostic, therapeutic and imaging equipment for fellows to gain competence in all essential core procedural competencies listed in Section III. of the *Neurocritical Care Core Curriculum*.
 - 4. Programs must provide the professional, technical, and clerical personnel needed to support the administration and educational conduct of the program.

IV. Faculty and Personnel

The faculty of accredited programs consists of: 1) the program director, 2) core faculty, and 3) other faculty. Core faculty are physicians who oversee clinical training in the subspecialty. The program director is considered a core faculty member when determining the fellow complement. Other faculty are physicians and other professionals determined by the Subspecialty to be necessary to deliver the program curriculum. The program director and faculty are responsible for the general administration of the program and for the establishment and maintenance of a stable educational environment. Adequate durations of appointments for the program director and core faculty members are essential for maintaining such an environment. The duration of appointment for the program director must provide for continuity of leadership.

A. Program Director Qualifications

 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 and he or she should be a member of the faculty or medical staff of the primary institution.

2. The program director must:

- a. possess requisite specialty expertise as well as documented educational and administrative abilities and experience in his or her field,
- b. be certified by the American Board of Medical Specialties (ABMS), RCPSC, American Osteopathic Association (AOA), or College of Family Physicians of Canada (CFPC) in neurology, neurological surgery, anesthesiology, general internal medicine, general surgery, emergency medicine, pediatrics, or child neurology,
- c. possess a current, valid, unrestricted, and unqualified license to practice medicine in the state or province of the program,
- **d. be certified, and maintain certification, in** Neurocritical Care **by the UCNS** or an ABMS member board,
 - i. New programs without a certified program director may apply for accreditation, as long as the application contains an attestation that the program director will become certified at the next available opportunity, which includes certification through the UCNS faculty diplomate pathway. The attestation must contain a statement that the program understands that should the program director fail to achieve certification, the program must immediately submit a program change request appointing an appropriately qualified program director.
- e. submit evidence of a minimum of 50% of clinical effort in caring for Neurocritical Care patients,
- f. have the interest, authority, and time required to fulfill the teaching and administrative responsibilities to develop, implement, and achieve the educational goals of the training program. Examples should be submitted documenting the program director's prior experience teaching, lecturing, or writing on topics related to Neurocritical Care, as well as activities related to the organization and management of an ICU clinical and teaching program,
- g. maintain continuing education in both Neurocritical Care and in critical care medicine, and
- h. demonstrate a commitment to the principles and practices of educational theory and methodologies.

B. Program Director Responsibilities

- 1. The program director must:
 - a. oversee and organize the activities of the educational program in all institutions participating in the program including selecting and supervising the faculty and other program personnel at each institution, and monitoring appropriate fellow supervision and evaluation at all institutions used by the program,
 - prepare accurate statistical and narrative descriptions of the program as requested by the UCNS as well as update the program and fellow records annually,
 - ensure the implementation of fair policies and procedures, as established by the sponsoring institution, to address fellow grievances and due process in compliance with the ACGME's or CanERA's institutional requirements,
 - d. monitor fellow stress, including mental or emotional conditions inhibiting performance or learning, and drug- or alcohol-related dysfunction, and
 - e. obtain prior approval of the UCNS for changes in the program that may significantly alter the educational experience of the fellows. Upon review of a proposal for a program change, the UCNS may determine that additional oversight or a site visit is necessary. Examples of changes that must be reported include:
 - 1) change in the program director,
 - 2) the addition or deletion of sponsoring, primary, or participating institution(s),
 - 3) change in the number of approved fellows, and
 - 4) change in the format of the educational program.
- 2. The program director is also responsible for selecting fellows in accordance with institutional and departmental policies and procedures.
- 3. The program director must function as one of the primary providers of Neurocritical Care to a clearly defined population of ICU patients.

C. Core Faculty Qualifications

- 1. Each core faculty member must:
 - a. possess requisite specialty expertise as well as documented educational and administrative abilities and experience in his or her field,
 - be currently certified in by the ABMS, RCPSC, AOA, or CFPC in neurology, neurological surgery, anesthesiology, internal medicine, general surgery, emergency medicine, pediatrics, or child neurology,
 - c. possess a current, valid, unrestricted, and unqualified license to practice medicine in the state or province of the program,
 - d. be appointed in good standing to the faculty of an institution participating in the program, and
 - e. possess either:
 - 1) Neurocritical Care Certification,¹
 - 2) ABMS critical care subspecialty certification (critical care medicine, anesthesia critical care, etc.), or
 - 3) ABMS neurosurgery board certification.

¹ NCC certification of core faculty members with regard to the fellow complement will be imposed upon programs seeking reaccreditation. Programs applying for initial accreditation will not be required to demonstrate certification of its core faculty members until the program is undergoes review for reaccreditation.

2. The core faculty must include at least one neurologist. The neurologist may also be the program director.

D. Core Faculty Responsibilities

- 1. There must be a sufficient number of core faculty members with documented qualifications at each institution participating in the program to instruct and adequately supervise all fellows in the program.
- 2. Core faculty members must:
 - a. devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities,
 - b. evaluate the fellows they supervise in a timely manner, and
 - c. demonstrate a strong interest in the education of fellows, demonstrate competence in both clinical care and teaching abilities, support the goals and objectives of the educational program, and demonstrate commitment to their own continuing medical education by participating in scholarly activities.

E. Other Faculty

Neurocritical Care training programs should take advantage of an institution's multidisciplinary faculty. In the course of their clinical activities, fellows should be routinely exposed to specialists in neurosurgery, interventional and diagnostic neuroradiology, emergency medicine, pulmonary, medical, or surgical critical care, anesthesiology, and various medical subspecialties in the course of caring for their patients. A collaborative multi-disciplinary approach to patient care should be emphasized. These clinicians may also provide instruction regarding specific procedural skills (i.e., endotracheal intubation, ventricular drain placement), under the overall supervision of the fellowship director.

V. Fellow Appointment

A. Duration of Training

- 1. Fellowship programs must be no less than 24 months of clearly identifiable training, unless as noted below, the entirety of which must be spent in patient-oriented Neurocritical Care education. At least 80% of the fellow's time must be spent in supervised training activities in the practice of Neurocritical Care, including didactic and clinical education specific to the subspecialty, electives, and scholarly activities.
 - a. The duration of Neurocritical Care training for fellows from the specialties of neurology, general internal medicine, general surgery, emergency medicine, pediatric critical care, or child neurology must be at least 24 months in duration.
 - b. For fellows who have completed post-graduate fellowship training in anesthesia critical care, surgical critical care, or internal medicine critical care that requires at least six months of critical care training, a Neurocritical Care fellowship program will be no less than 12 months in duration.
 - c. For fellows who have completed post-graduate training in neurosurgery, or a minimum of four years of post-graduate clinical training in neurosurgery, a Neurocritical Care fellowship program will be no less than 12 months in duration. Neurosurgery residents who are enrolled in a UCNS fellowship must complete the training in 12 consecutive months. During this time, all clinical activities, including call, must occur within the UCNS Neurocritical Care fellowship.

2. Flexible Fellowships

a. Programs may offer flexible fellowships for a variety of reasons, including, but not limited to: combined clinical/research fellowships or to allow fellows opportunities for work/life balance. Programs that combine clinical and research training (clinician-scientist fellowship program) may be up to 36 months in duration for a one-year program and 48 months for a two-year program. At least 24 full months (unless noted above) of this extended-program period must be spent in patient-oriented Neurocritical Care clinical, educational, and scholarly activity, the distribution of which across this extended period is at the program's discretion.

B. Fellow Eligibility

- 1. The fellow must possess a current valid and unrestricted license to practice medicine in the United States or its territories or Canada.
- 2. The fellow must be a graduate of a residency program in neurology, neurological surgery, internal medicine, anesthesiology, surgery, child neurology, or emergency medicine or a fellowship in pediatric critical care that is accredited by the ACGME, or RCPSC or CanERA, or have completed a minimum of four years of post-graduate clinical training in neurosurgery and be currently enrolled in an ACGME- or CanERA-accredited neurosurgery residency.
- 3. The fellow must be board certified or eligible for certification by the ABMS, RCPSC, AOA, or CFPC in neurology, neurological surgery, anesthesiology, internal medicine, general surgery, emergency medicine, or child neurology. Neurosurgery residents enrolled in an ACGME- or RCPSC-accredited neurosurgery residency who have completed a minimum of four years of post-graduate clinical training in neurosurgery are also eligible.
- **4.** Each fellow must achieve provider and/or instructor status in the following:
 - a. Advanced Cardiac Life Support (ACLS)
 - b. Certification in one or more of the following is desirable:
 - i. Advanced Trauma Life Support (ATLS)
 - ii. Pediatric Advanced Life Support (PALS)
 - iii. Fundamental Critical Care Support (FCCS)

C. Fellow Complement

The fellow complement is the number of fellows allowed to be enrolled in the program at any given time, e.g., across all training programs.

- 1. There must be at least one NCC-certified core faculty member for every two fellows².
- 2. The faculty must function as a team of physicians providing full-time around-the-clock coverage as the primary providers of critical care to a specified population of critically ill neurological patients. Although a minimum of two faculty members is desirable, a single program director may function as the sole faculty member, but only when he or she is part of a larger group of critical care specialists who provide comprehensive around-the-clock coverage in an ICU.

² NCC certification of core faculty members with regard to the fellow complement will be imposed upon programs seeking reaccreditation. Programs applying for initial accreditation will not be required to demonstrate certification of its core faculty members until the program is undergoes review for reaccreditation.

At each participating institution there must be a sufficient number of faculty with documented qualifications to adequately instruct and supervise all fellows in the program. In no instances should there be more than one fellow per one faculty member. The program director may be counted as one of the faculty when determining the fellow complement.

D. Appointment of Fellows and Other Students

 The appointment of fellows who do not meet the eligibility criteria above must not dilute or detract from the educational opportunities of regularly appointed Neurocritical Care fellows. Programs must include these fellows in all reports submitted to UCNS to demonstrate compliance with the approved fellow complement. Fellows who are enrolled without meeting the eligibility criteria must be notified that they may not apply for UCNS certification examinations as graduates of an accredited program.

VI. Educational Program

A. Role of the Program Director and Faculty

- 1. The program director, with assistance of the faculty, is responsible for developing and implementing the academic and clinical program of fellow education by:
 - a. preparing a written statement to be distributed to fellows and faculty and reviewed with fellows prior to assignment, which outlines the educational goals and objectives of the program with respect to the knowledge, skills, and other attributes to be demonstrated by fellows for the entire fellowship and on each major assignment and each level of the program,
 - preparing and implementing a comprehensive, well-organized, and effective curriculum, both academic and clinical, which includes the presentation of core specialty knowledge supplemented by the addition of current information, and
 - c. providing fellows with direct experience in progressive responsibility for patient management.
 - Criteria must be established to evaluate and document procedural competencies, i.e., both basic and advanced critical care and neurological interventions. This should include, but is not limited to, how this training is conducted, the minimum number of directly observed procedures before the fellow can operate independently, and mentor sign-off procedures.

B. Competencies

- A fellowship program must require that its fellows obtain competence in the ACGME Core Competencies to the level expected of a new practitioner in the subspecialty. Programs must define the specific and unique learning objectives in the area including the knowledge, skills, and behaviors required and provide educational experiences as needed in order for their fellows to demonstrate the core competencies.
- 2. The program must use the ACGME Core Competencies to develop competencybased goals and objectives for all educational experiences during the period of fellowship training in Neurocritical Care.

C. Didactic Components

- The program must include structured, fellow-specific educational experiences such
 as rounds, conferences, case presentations, lectures, and seminars that
 complement the clinical and self-directed educational opportunities. Together,
 various educational experiences must facilitate the fellow's mastery of the core
 content areas and foster the competencies as described above.
- 2. Fellows must regularly attend seminars and conferences in neurology, neurosurgery, critical care, and neuroradiology. Additional didactic exposure may be desirable in neuropathology, neuromuscular disease, cerebrovascular disease, epilepsy and neurophysiology, pain management, and rehabilitation. A regularly scheduled research conference or seminar should be attended. Fellows must learn about major developments in both the basic and clinical sciences relating to critical care, neurology, neurosurgery, and neuroradiology. Fellows must attend periodic seminars, journal clubs, and lectures in basic science, didactic courses, and meetings of local and national scholarly societies relevant to Neurocritical Care. All core elements of the Neurocritical Care Core Curriculum must be addressed.

D. Clinical Components

- The fellow's clinical experience must be spent in supervised activities related to the care of patients with general critical care, Neurocritical Care, neuromedical, or neurosurgical problems. Clinical experiences may include all training relevant to Neurocritical Care, including lectures and individual didactic experiences and journal clubs emphasizing clinical matters.
- 2. For each 24-month programs identified in V.A.1.a., fellows must complete at least 12 months of "on-service" critical care experience in which the fellow participates in a team that has primary responsibility for patient management in the ICU. The majority (more than 50%) of this experience should take place in a setting in which the emphasis of care is primarily on neurological and neurosurgical patients, whether in a neuro-ICU, or as part of a team responsible for the care of neurological patients in the context of a medical-surgical ICU. Consultative experience alone does not provide the exposure necessary to train a neurointensivist. Part of the 12-month critical care experience may also be spent as a member of an ICU team in the setting of a medical, pulmonary, surgical/anesthesia, cardiac, pediatric, trauma, transplant, or other subspecialty ICU, or in the operating room (OR) under the guidance of an anesthesiologist. None of these non-neurological critical care rotations is considered mandatory, although participation in them will be encouraged to enhance the education of fellows outside of the neuro-ICU.
- 3. For each 12-month program identified in V.A.1.b., since these fellows have completed post-graduate training in specialties outside the neurosciences, the program will require no less than eight months of "on-service" critical care experience that primarily focuses on neurological and neurosurgical patients. The fellow will participate in a team that has primary responsibilities for patient management in the neuroscience ICU since consultative experience alone does not provide the exposure necessary to train a neurointensivist. The remaining rotations will focus on non-critical neuroscience such as inpatient or outpatient stroke service, clinical neurophysiology, diagnostic or interventional neuroradiology, and research.
- 4. For each 12-month program identified in V.A.1.c., since these fellows have post graduate training in neurosurgery, the program will require no less than 10 months of "on-service" critical care experience of which no less than 50% will focus on critical care experience in general critical care, e.g., medical, pulmonary, cardiac,

- and pediatric critical care. During these 10 months of "on-service" critical care experience, the fellow participates in a team that has primary responsibility for the patient management in the ICU. Consultative experience alone does not provide the exposure necessary to train a neurointensivist. The remaining rotations will be focused on non-critical care such as clinical neurophysiology, subspecialty areas of internal medicine such as infectious disease, pulmonary medicine, or cardiology, or research.
- 5. In addition to each fellow's rotations in the Neurocritical Care setting, a number of elective rotations designed to provide a broad exposure to allied fields in critical care, neurology, medicine, and surgery should be made available to the fellow. These may require inter-institutional cooperation among medical centers to provide the fellow with a broad general critical care patient experience.
 - a. Fellows may spend time on any of the following non-neurological critical care rotations listed below, and time spent on these rotations may be applied to the minimum for "on-service" ICU time listed above. None of these rotations are considered mandatory.
 - i. Medical ICU
 - ii. Surgical/anesthesia ICU
 - iii. Cardiac or cardiothoracic ICU
 - iv. Trauma ICU
 - v. Neuroanesthesiology
 - vi. Post-anesthesia recovery room
 - vii. Pediatric ICU
 - viii. Transplant ICU
 - b. Additional elective non-critical care clinical rotations may also include the following, although this list should not be considered exhaustive.
 - i. Neurosurgery
 - ii. Interventional or diagnostic neuroradiology
 - iii. Neurovascular or stroke service
 - iv. Emergency department
 - v. Doppler lab
 - vi. Clinical neurophysiology
 - vii. Diagnostic neuroradiology
 - viii. Pathology
 - ix. Research
- 6. Patient care responsibilities may include inpatient, outpatient, and consultation experiences in addition to the minimum of ICU exposure.
- 7. The ICU fellow rotations must function in the context of a team of critical care physicians who provide comprehensive and around-the-clock ICU coverage to a specified population of critically ill neurological patients. This may occur in a dedicated Neurocritical Care unit, or in the setting of a larger medical-surgical ICU.
- 8. Patient care in the ICU must be conducted through faculty-supervised teaching rounds, in which practical elements of patient care are combined with discussions. These rounds must involve faculty, fellows, consulting physicians and other specialists, medical students, nurses, nurse practitioners, physician assistants, respiratory therapists, pharmacists, and other health care providers. Teaching is a required aspect of the fellow's education.

E. Scholarly Activities

- The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the faculty. Both faculty and fellows must participate actively in some form of scholarly activity. Scholarship is defined as activities unrelated to the specific care of patients, which includes scholarship pertaining to research, writing review papers, giving research-based lectures and participating in research-oriented journal clubs.
- 2. There must be adequate resources for scholarly activities for faculty and fellows. The program must have available sufficient laboratory space, equipment, and computer resources to support scholarly activities. In addition, there must be appropriate staff and faculty support of scholarly activities in the form of faculty supervision, clinical and laboratory research support services, data analysis, and statistical consultation.
- F. Fellow Supervision, Clinical Experience and Education, and Well-Being Providing fellows with a sound academic and clinical education must be carefully planned and balanced with concerns for patient safety and fellow well-being. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on fellows to fulfill service obligations. Didactic and clinical education defined by the program requirements must have priority in the allotment of a fellow's time and energy.

1. Fellow Supervision

- a. All patient care required by the program requirements must be supervised by qualified faculty. The program director must ensure, direct, and document adequate supervision of fellows at all times. Fellows must be provided with rapid, reliable systems for communicating with supervising faculty.
- b. Faculty schedules must be structured to provide fellows with continuous supervision and consultation.
- c. Faculty and fellows must be educated about and meet ACGME or CanERA requirements concerning faculty and fellow well-being and fatigue mitigation.
- 2. Clinical Experience and Education and Well-Being
 - a. Clinical assignments must recognize that the faculty and fellows collectively have responsibility for the safety and welfare of patients. Fellow clinical experience and education supervision, and accountability, and clinical work hours, including time spent on-call, must comply with the current ACGME or CanERA institutional program requirements.

VII. Evaluation

A. Fellow Evaluation

- 1. Fellow evaluation by faculty must:
 - a. take place at least semi-annually to identify areas of weakness and strength, which must be communicated to the fellow,
 - b. use the subspecialty milestones to document fellow experience and performance, and
 - c. include the use of assessment results to achieve progressive improvements in the fellow's competence and performance in the ACGME Core Competencies and the subspecialty's core knowledge areas. Appropriate sources of evaluation include faculty, patients, peers, self, and other professional staff.

- 2. The program must include a mechanism for providing regular and timely performance feedback to fellows. Issues of unacceptable performance must be addressed in a timely fashion and in accordance with the policies and procedures of the sponsoring institution.
- 3. Summary and final evaluation of the fellow must:
 - a. be prepared by the program director and should reflect the input of faculty,
 - include a formative evaluation of the fellow's demonstration of learning objectives and mastery of the ACGME Core Competencies using the subspecialty's milestones,
 - c. include a final, summative evaluation by the program director using the subspecialty's milestones to document the fellow's demonstration of sufficient competence and professional ability to practice the subspecialty competently and independently, and
 - d. include a statement specifically regarding the fellow's ability to practice the subspecialty independently upon completion of the program.

B. Faculty Evaluation

- 1. The performance of faculty must be evaluated by the program director on an annual basis.
- 2. The evaluations must include a review of their teaching abilities, commitment to the educational program, clinical knowledge, and scholarly activities.
- 3. These evaluations must include confidential annual written evaluations by fellows. Fellow evaluations must be confidential.

C. Program Evaluation and Outcomes

- 1. The effectiveness of a program must be evaluated in a systematic manner. In particular, the quality of the curriculum and the extent to which the educational goals have been met must be assessed.
- 2. Confidential written evaluations by fellows must be utilized in this process.
- 3. The program will use fellow performance and outcome assessment in its evaluation of the educational effectiveness of the fellowship program. At a minimum, the fellow performance on the UCNS certification examination should be used as a measure of the effectiveness of the education provided by the training program. The development and use of clinical performance measures appropriate to the structure and content of each program is encouraged.
- 4. The program must have a process in place for using fellow performance and assessment results together with other program evaluation results to improve the fellowship program.