Frequently Asked Questions: Neurological Surgery
Review Committee for Neurological Surgery
ACGME

Question	Answer
Introduction	
What are the Review Committee's expectations regarding the educational program for residents in six-year programs that are transitioning to seven-year programs? *[Program Requirement: Int.D.]*	All residents entering a program on or after July 1, 2013 must complete an 84-month educational program. This includes residents transferring into the program from other programs. Program directors may choose to offer residents who entered the program prior to July 1, 2013 the opportunity to complete the planned 84-month curriculum, but may not require such residents to do so.
If an individual has completed a PhD and is accepted into a neurological surgery program, can the resident complete the program in less than seven years? *[Program Requirement Int.D.]*	No. While the American Board of Neurological Surgery (ABNS) may approve the PhD for elective time, the Review Committee requires completion of all seven years of neurological surgery education.
Institutions	
What are the Review Committee's expectations for compliance with the requirement for an ACGME-accredited anesthesiology program for those Sponsoring Institutions that do not currently have such a program? *[Program Requirement: I.A.2.]*	The intent of this requirement is to promote and ensure interdisciplinary education, since these specialties are regularly involved in the care of the same patients. Residents who learn together also learn the value that each discipline contributes to each patient's care, and the result is more team-based care, a national goal espoused not only by the ACGME, but also the Institute of Medicine (IOM) and other organizations. Compliance with this requirement may be achieved in a variety of ways, such as: initiating an application for ACGME accreditation of an anesthesiology program; requesting an affiliation with a new participating site that already has an ACGME-accredited anesthesiology program; or requesting an exception by submitting a plan for how the intent of the requirement will be met in the absence of anesthesiology residents from an ACGME-accredited program.

Question	Answer
Can a resident participate in a rotation at a facility abroad in order to obtain unique operative and educational experiences, and can operative cases completed during such a rotation be logged in the Case Log System? *[Program Requirement: I.B.4.]*	The Review Committee will approve international rotations as part of the accredited education of residents upon satisfactory review of all required information. International rotations must be offered as electives only, and must also receive prior approval of the ABNS. **No operative cases completed during an international rotation may be entered into the Case Log System**. Complete information on the application process, including details on all required information, is available on the Documents and Resources page of the Neurological Surgery section of the ACGME website.
Does a program requesting to add a participating site or requesting approval for any change in rotations at an existing participating site need to obtain prior approval from the ABNS? *[Program Requirement: I.B.4.]*	No. Changes in rotations that in turn require a change to a program's participating sites must be initiated by submitting a request for a participating site change in the ACGME's Accreditation Data System (ADS). The Review Committee must approve all such requests before residents may rotate at the new proposed participating site. This is required for any type of rotation, including away electives: one-time elective; standing elective; required rotation; and research rotation. Programs should contact the ABNS to ensure that the proposed rotation/change is consistent with tracking toward residents' board eligibility.
When requesting to add a participating site, what information about other learners at the proposed site does the Review Committee require? *[Program Requirements: I.B.4. and III.D.]*	The Review Committee is concerned not only about the learning opportunities that will be available for the program's resident(s) rotating to the proposed site, but also about the potential impact the rotating resident(s) could have on residents from other ACGME-accredited neurological surgery programs that currently use the site as part of their educational program. Therefore, the request to add a participating site must include information provided by the participating site director describing how the education of all neurological surgery residents and fellows currently rotating at that site will be managed to mitigate any negative impact due to the proposed additional resident(s) while providing the expected educational experiences for the proposed additional resident(s).

Question	Answer
Program Personnel and Resources	
What qualifications are acceptable in lieu of ABNS certification for the program director? *[Program Requirement: II.A.3.b)]*	The Review Committee expects all program directors to have current ABNS certification. Current program directors who are not ABNS-certified and for whom there is no documentation of approval by the Review Committee must submit a request for an exception. Newly appointed program directors who are not ABNS-certified must also request an exception. Please contact the Executive Director of the Review Committee for more information. Contact information is available on the Neurological Surgery section of the ACGME website.
Under what circumstances would the Review Committee consider AOA certification in place of ABNS certification for the program director? *[Program Requirement: II.A.3.b)]*	During the period of transition to a single graduate medical education accreditation system (July 1, 2015-June 30, 2020), the Review Committee will accept AOA-certification for the current program director of an AOA-approved neurological surgery program applying for ACGME accreditation. Additional qualifications will be reviewed, consistent with all current ACGME-accredited neurological surgery programs. Once a program moves from AOA-approved to ACGME-accredited, the existing program director may continue in his/her role. When there is a subsequent change in program director, the proposed new program director will be required to have experience as an active faculty member in an ACGME-accredited neurological surgery program and will be reviewed consistent with all applications to the Review Committee for a new program director.
What defines “major” clinical responsibilities for a site director? *[Program Requirement: II.A.4.b).(2)]*	“Major” is defined as adequate to have sufficient educational and administrative oversight of the program rotation. This would involve a minimum of 50 percent clinical effort at the site director’s institution (participating site) and/or serving as the primary faculty member contributing educationally for the rotation.
What forms of certification are acceptable to the Review Committee for core physician faculty members? *[Program Requirements: II.B.6.-II.B.8.]*	The Review Committee will accept ABNS or American Osteopathic Board of Surgery (AOBS) certification in neurological surgery, and will consider faculty member certification by non-domestic entities on a case-by-case basis. Programs may also submit qualifications for neurological surgeons who are on a path to ABNS or AOBS certification for consideration by the Review Committee.

Question	Answer
How can a program demonstrate substantial compliance with the requirement for a full-time designated program coordinator? *[Program Requirement: II.C.1.]*	The Review Committee will consider proposals from small programs (with seven or fewer residents) for a designated program coordinator with limited additional assigned duties unrelated to program administrative needs. Such proposals will be reviewed on a case-by-case basis.
Must the unit designated for the care of neurological surgery patients be a physically distinct unit? *[Program Requirement: II.D.1.e)]*	No, this unit may either be a stand-alone unit that is physically distinct, or be located within a patient care unit that contains beds designated for neurological surgery patients and that has staff members trained in the care of such patients.
What are the expectations for the distribution of institutional cases across the spectrum of neurological surgery procedures? *[Program Requirement: II.D.5.]*	The Review Committee reviews institutional case numbers for all new program applications, as well as for all resident complement increase requests and all participating site change requests. The Institutional Case Report Form, as well as guidelines for expected institutional case numbers, is available on the Documents and Resources page of the Neurological Surgery section of the ACGME website. These numbers will be monitored in conjunction with the numbers reported by graduating residents in the Case Log System, and will be revised as needed.
Resident Appointments	
How must a request for a change in resident complement be submitted? *[Program Requirement: III.B.1.]*	All requests for changes in resident complement, whether permanent or temporary, must be made through ADS. Note that ACGME staff members will not receive the resident complement request until the designated institutional official (DIO) has approved the request. Requests for increases must be submitted to and approved by the Review Committee prior to accepting additional resident(s) into the program. Except as noted below, requests will only be reviewed at a regularly scheduled Review Committee meeting. Additional information about requesting a change in resident complement for neurological surgery programs can be found on the Documents and Resources page of the Neurological Surgery section of the ACGME website.

Question	Answer
How does the Review Committee consider case volume in making decisions about a request for an increase in complement? *[Program Requirement: III.B.1.]*	When reviewing a request for an increase in complement, the Review Committee specifically examines the case volume experience of the most recent graduating resident(s) compared to national averages, as well as the available institutional case numbers. Meeting the defined case category (DCC) minimums is not sufficient to indicate a need for additional trainees. Generally, for a request to be granted, graduating resident averages should exceed the fiftieth percentile nationally in at least 75 percent of DCC 1-19, with at least four of that number being at or above seventy-fifth percentile. The application should include a statement regarding whether other learners (fellows, visiting residents) are at the primary clinical site or at participating sites, and the mechanism to be used to ensure resident education is not compromised. Educational content is as important as institutional case numbers in adjusting resident complement.
If accepting a transfer resident into the program, what procedures must be followed? *[Program Requirement: III.C.1.]*	Prior to accepting a transferring resident, the program director must receive written verification of the resident's previous educational experiences, case logs, and a statement regarding his or her performance evaluation. This information must be maintained in the resident's file. The Review Committee does not need to be notified of the acceptance of a transfer resident, provided there is an open position for the resident and the appointment does not exceed the total approved resident complement. A newly appointed transfer resident must be entered into ADS before he or she can be added to the Case Log System for the receiving program. The ABNS may have requirements governing resident transfers. Accordingly, it is recommended that plans to accept a resident from another program be discussed with the ABNS prior to appointment of the resident. Following the existing ABNS policy, programs may request elective credit for training received in another country, such as the UK or Australia. The ABNS will grant up to 12 months of such elective credit. Programs requesting such credit must request Review Committee approval following receipt of the ABNS decision. If approved by the Review Committee, such residents must be accepted into the program at the PGY-1 level and may be advanced to the PGY-2 level based on ACGME Milestones assessments. Please contact the Executive Director for additional information.

Question	Answer
Can a program accept a transferring resident from a program that may close if all positions in the receiving program are filled? *[Program Requirement: III.C.1.]*	A request for a temporary increase in resident complement must be submitted following the procedures outlined above. Such requests are normally considered at a regularly scheduled Review Committee meeting. However, the Committee will expedite review of requests to appoint a resident who has been displaced due to a program closing.
Educational Program	
Which resident experiences are included in the required 54 months of clinical neurological surgery education? *[Program Requirement: IV.A.6.b).(1)]*	The components of the required minimum 54 months of clinical neurological surgery education are the following: 42 months of operative neurological surgery; six months of structured education in general patient care if this takes place on the neurological surgery service; three months of basic clinical neuroscience education; and three months of critical care education applicable to the neurosurgical patient. The required 12 months as chief resident on the neurological surgery service may be included in these 54 months. Clinical research experience will not count toward the 54-month requirement for clinical neurological surgery education. A minimum of 21 months of the required 54 months of clinical neurological surgery education must occur at the primary clinical site.
What is expected of programs with regard to the requirement for structured education in general patient care? *[Program Requirement: IV.A.6.b).(1)]*	The required six months of structured education in general patient care needs to ensure that residents have the experiences that enable them to demonstrate outcomes as required in Program Requirements IV.A.6.a).(1)-(5). The clinical and didactic activities the program provides are not specified so as to give each program the flexibility to take maximal advantage of available resources (patients, faculty members, services, etc.). While worded so as not to require the six months of structured education in general patient care occur during the PGY-1, most programs would likely ensure that every resident demonstrates these fundamental skills by the end of that PGY-1.

Question	Answer
What types of rotations will fulfill the requirement for three months of basic clinical neuroscience during the first 18 months of education? *[Program Requirement: IV.A.6.b).(2)]*	There are a variety of rotations that will fulfill this requirement, including rotations in neurology, additional rotations in critical care beyond the required three months of critical care, or rotations in related specialties, such as neuropathology, medical neuro-oncology, neurorehabilitation, neuro-ophthalmology, or neuroradiology. Programs may choose to utilize a combination of rotations in these various specialties, including composite rotations (e.g., concurrent rotations in neuropathology and neuro-ophthalmology); however, each rotation must be at least one month in duration. The intent of the requirement is to provide programs with maximal flexibility to take advantage of institutional assets to best educate residents in this area.
Does the required three months of clinical neuroscience education fulfill part of the requirement for six months of general patient care during the first 18 months of education? *[Program Requirements: IV.A.6.b).(1)-(2)]*	No, it does not.
Does the required three months of critical care fulfill part of the requirement for six months of general patient care during the first 18 months of education? *[Program Requirements: IV.A.6.b).(1)-(2)]*	No, it does not.
What responsibilities should chief neurological surgery residents have in order to prepare them to enter unsupervised practice of medicine? *[Program Requirement: IV.A.6.b).(3).(a)]*	It is very important that chief neurological surgical residents have semi-autonomous responsibility for groups of patients as part of a team led by an attending physician. This type of experience is very similar to the conditions of independent practice, which residents at this level will enter soon after graduating, and often occurs in the context of 'home call', where the requirement for an eight-hour respite does not apply. Whether during at-home call or during scheduled clinical work periods, it is important that these residents have this kind of experience.

Question	Answer
What are the Review Committee's expectations for electives? *[Program Requirement: IV.A.6.c)]*	There are no specific expectations for the type of electives residents should have, but all permanent electives must receive prior approval by both the Review Committee and the ABNS. For example, a program may propose an international elective, a transition-to-practice elective, or a research elective, which will be offered as a regular component of the program. Please contact the Executive Director for additional information. Contact information is available on the Neurological Surgery section of the ACGME website. Alternatively, a program may create a one-time elective to meet the needs of one or more specific residents. For example, a program may direct a resident to have an additional outpatient elective or specific rotation(s) to gain more experience in particular surgical procedures. Such electives must receive prior approval by the ABNS. Programs must inform the Review Committee, but Review Committee approval is not required.
What are the Review Committee's expectations regarding the participation of residents in the pre- and post-operative continuum of care? *[Program Requirements: IV.A.6.d).(1)-(4)]*	Residents are expected to have significant experiences following the same patients through all phases of care to demonstrate competence in providing a continuum of care, including evaluation and diagnosis, making pre-operative decisions, participating in operative and other procedures, and post-operative care and counseling. While a minimum number of such patients has not been specified in the Requirements, these abilities are included in the Patient Care Milestones for all procedural areas. Programs should design their curricula and closely monitor each resident's developing abilities in order to ensure that he or she is a competent provider of continuity care for neurological surgery patients by the time he or she graduates.
If an individual has been a resident in an ACGME-approved program in another specialty, logged cases in the ACGME Case Log System during that time, and then transfers into a neurological surgery program, can some or all of those cases be transferred into the neurological surgery Case Log System? *[Program Requirement IV.A.6.d).(3).(a)]*	The Review Committee will permit cases logged during a recently-completed PGY-1 year of an ACGME-accredited general surgery program to be transferred to the neurological surgery program. Note that it is likely that the only cases that will count toward the required minimums are those related to DC20-27 of the neurological surgery Case Log System. Such cases must have been performed at the level of senior resident surgeon or lead resident surgeon. Contact the Executive Director of the Review Committee for more information.

Question	Answer
Evaluation	
What resources are available to program directors for use in planning and monitoring residents' educational experiences? *[Program Requirement: V.A.2.a)]*	Program directors have many tools, including the Milestones, Case Log reports, and the Matrix Curriculum provided by the Society of Neurological Surgeons, to use in monitoring each resident's educational progress and making appropriate adjustments as needed.
How is the required pass rate on the ABNS certifying oral examination for program graduates set? *[Program Requirement: V.C.6.]*	For the most recent seven years, the ABNS reports the number of graduates from each program who took the oral exam, and the number of residents who passed. Because there can be up to almost six years following graduation until a resident takes the oral exam, limiting the calculation to those residents would not provide meaningful data. Therefore, the Review Committee is not concerned with the date of graduation but rather with the number of graduates taking the exam who passed. Individual residents are not reported in the ABNS data.
The Learning and Working Environment	
Are there any situations in which residents may be supervised by non-neurosurgical-licensed independent practitioners? *[Program Requirement: VI.A.2.b).(1)]*	In certain learning environments, such as the neuro-intensive care unit, a properly credentialed and privileged critical care physician may supervise a resident. In the operating room environment, a properly credentialed and privileged anesthesiologist may supervise certain procedures, such as central line placement, arterial line placement, and endotracheal intubations.
What must a PGY-1 resident demonstrate in order to progress to being supervised indirectly with direct supervision available? *[Program Requirement: VI.A.2.e).(1).(a)]*	Programs must document that residents have had structured education in the procedures listed below equivalent to that available through the boot camps offered by the Society of Neurological Surgeons. Program directors must ensure that a resident has demonstrated competence in each listed procedure and patient management competency to the satisfaction of the supervising faculty member before he or she can be supervised indirectly with direct supervision available for that procedure or patient management competency. Approved procedures and patient management competencies that PGY-1 residents can perform under indirect supervision with direct supervision available are: **Patient Management Competencies** 1. evaluation and management of a patient admitted to hospital, including initial history and physical examination, formulation of a plan of therapy, and necessary orders for therapy and tests

Question	Answer
	2. pre-operative evaluation and management, including history and physical examination, formulation of a plan of therapy, and specification of necessary tests 3. evaluation and management of post-operative patients, including the conduct of monitoring, specifying necessary tests to be carried out, and preparing orders for medications, fluid therapy, and nutrition therapy 4. transfer of patients between hospital units or hospitals 5. discharge of patients from hospital 6. interpretation of laboratory results **Procedural Competencies** 1. carry-out of basic venous access procedures, including establishing intravenous access 2. placement and removal of nasogastric tubes and Foley catheters 3. arterial puncture for blood gases During the early months of the PGY-1, residents must be educated in, directly observed, and assessed in the following: **Patient Management Competencies** 1. initial evaluation and management of patients in the urgent or emergent situation, including urgent consultations, trauma, and emergency department consultations (ATLS required) 2. evaluation and management of post-operative complications, including hypotension, hypertension, oliguria, anuria, cardiac arrhythmias, hypoxemia, change in respiratory rate, change in neurologic status, and compartment syndromes 3. evaluation and management of critically-ill patients, either immediately post-operatively or in the intensive care unit (ICU), including monitoring, ventilator management, specification of necessary tests, and orders for medications, fluid therapy, and enteral/parenteral nutrition therapy 4. management of patients in cardiac arrest (ACLS required) **Procedural Competencies** 1. carry-out of advanced vascular access procedures, including central venous

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	catheterization, temporary dialysis access, and arterial cannulation 2. repair of surgical incisions of the skin and soft tissues 3. repair of skin and soft tissue lacerations 4. excision of lesions of the skin and subcutaneous tissues 5. tube thoracostomy 6. paracentesis 7. joint aspiration 8. advanced airway management a) endotracheal intubation b) tracheostomy
What is an appropriate patient load for residents? *[Program Requirement: VI.E.1.]*	The program director must make an assessment of the learning environment with input from faculty members and residents. Minimum patient loads should usually be five on the general inpatient unit and four while on clinical neurological surgery services. However, there may be situations in which lower patient loads may be acceptable. Programs will need to justify lower patient loads with evidence such as severity of illness indicators or other factors.
What would an appropriate patient load be for a chief resident or a resident or resident in their final year of education? *[Program Requirement: VI.E.1.]*	The program director must make an assessment of the learning environment with input from faculty members and residents. Residents in the chief year or final year of education generally take on more patient care responsibilities than earlier in the educational program. Minimum patient loads should usually be 10 on the general inpatient unit, and three in the intensive care unit.
Who should be included in interprofessional teams? *[Program Requirement: VI.E.2.]*	Advanced practice providers, audiologists, certified registered nurse anesthetists (CRNAs), child-life specialists, nurses, nutritionists, operating room technicians, pharmacists, physical and occupational therapists, physician assistants, psychologists, radiology technicians, respiratory therapists, social workers, and speech and language pathologists are examples of professional personnel who may be part of interprofessional teams.
Must every interprofessional team include representation from every professional listed above? *[Program Requirement: VI.E.2.]*	No. The Review Committee recognizes that the needs of specific patients change with their health statuses and circumstances. The Review Committee's intent is to ensure that the program has access to these professional and paraprofessional personnel, and that interprofessional teams be constituted as appropriate and as needed, not to mandate that all be included in every case/care environment.

Question	Answer
What roles must residents have in the interprofessional health care team? *[Program Requirement: VI.E.2.]*	As members of the interprofessional health care team, residents must have key roles in diagnostic work-up, operative procedures, treatment decisions, measurement of treatment outcomes, and the communication and coordination of these activities with program faculty members and referring sources.
What procedures must be followed to request a rotation-specific clinical and educational work hour exception? *[Program Requirement: VI.F.4.c)]*	The Review Committee will consider requests for a clinical and educational work hour exception only for residents at the PGY-2 level and above. All first-time exception requests require a site visit. All required documentation must be received by the agenda closing date in order for a request to be considered. Requests for a continued exception will be considered only at the second Review Committee meeting of a calendar year. Details for what to include in such a request are available on the Neurological Surgery section of the ACGME website.
What are the Committee's general guidelines for assigning progressive authority and responsibility? *[Program Requirement VI.A.2.d)]*	All residents enter the program as interns having participated in the Neurological Surgery Boot Camp offered through the Society of Neurological Surgeons. Boot camp provides intense training and assessment of fundamental professionalism, communication, and procedural skills. Residents are expected to be directly observed and evaluated during the early months of the PGY-1 to determine readiness for increasing authority and responsibility. By the time residents enter PGY-2, they have had considerable experience as members of operative teams and in other teams providing patient care, and are often the most senior residents on certain rotations (i.e., a pediatric service in a children's hospital), and in such a role will function as a leader of the team with the attendings. Neurological surgery programs are designed such that excellent educational experiences occur when residents are given the responsibility to lead a team of more junior residents under the supervision of an attending whose practice is focused in a specific clinical area. PGY-3 residents deemed ready may assume such a role. For example, if a PGY-3 resident is the senior-most resident working on a dedicated spine service and the operative case runs until 10:30 pm, the resident should be able to return to lead the service hospital rounds at 6:00 am the following morning. The educational value of this type of leadership experience is important for a resident's maturation as a clinician and surgeon.

Question	Answer
What are some specific examples of circumstances when residents may stay or return to the hospital with fewer than eight hours free of clinical responsibilities? *[Program Requirements: VI.F.2.b) and VI.F.4.a)]*	1. To optimize continuity of care for patients, such as a: a) patient on whom the resident operated/intervened that day and needs to return to the operating room (OR) b) patient on whom the resident operated/intervened that day and who requires transfer to the ICU from a lower level of care; c) patient on whom the resident operated/intervened that day in the ICU and who is critically unstable; d) patient on whom the resident operated/intervened during that hospital admission and who needs to return to the OR due to a matter related to a procedure previously performed by the resident; or, e) patient and/or patient's family with whom the resident needs to discuss the limitations of treatment/DNR/DNI orders for a critically ill patient on whom the resident operated. 2. To participate in a declared emergency or disaster when residents are included in the disaster plan. 3. To perform important, low-frequency procedures necessary for competence in the field. 4. When functioning in a leadership role as the senior-most resident on a team of other residents and attendings where the resident's presence at rounds or another important surgical procedure is necessary for continuity of team leadership (most often in the context of a "home call" arrangement.)
Other	
Why is it not possible to receive an immediate review and response from the Review Committee?	The Review Committee meets twice annually. As such, expedited review of interim requests can be disruptive to its work. Timelines for the submission of program requests for each meeting date are listed under "Agenda Closing Dates" on the Neurological Surgery section of the ACGME website. The Review Committee will make an exception and immediately review a request to appoint a resident who has been displaced due to a program closing.
How can a program get answers to other questions related to accreditation?	Updates and clarifications to ACGME policies and procedures are announced in the ACGME *e-Communication* as they are published. In addition, you may call or e-mail a member of the Review Committee staff. Contact information is available on the Neurological Surgery section of the ACGME website.