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

Question	Answer
Introduction	
If an individual has completed a PhD and is accepted into a neurological surgery program, can the resident complete the program in fewer than seven years? *[Program Requirement: Int.C.]*	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 residency education.
Oversight	
Will currently accredited programs be reviewed for substantial compliance with the requirement for the neurological surgery learning environment to have residents from ACGME-accredited programs in the five other specialties? *[Program Requirement: I.B.1.a)]*	Yes. The Review Committee, through its past program reviews, has determined that all currently accredited programs are in substantial compliance. However, program elements may change over time. Therefore, at the time of each comprehensive accreditation site visit, programs will be reassessed for substantial compliance with the requirement.

Question	Answer
For programs seeking an exception to the requirement that residents from ACGME-accredited programs in anesthesiology, diagnostic radiology, internal medicine, neurology, pediatric, and surgery be available at the primary clinical site in significant numbers, what important elements should a submitted plan address? *[Program Requirement: I.B.1.a).(1)]*	The most commonly granted exception is related to residents from pediatrics programs. Pediatric neurological surgery, a required part of core neurological surgery, is highly specialized and must take place in an environment with residents whose education and training is focused on pediatric patients with a broad variety and complexity of neurosurgical needs. This frequently occurs at a children's hospital at the senior level (PGY-3 and above), where residents from pediatric programs also receive education and training focused on providing medical care specifically for pediatric patients. A rotation to a distant site may be necessary to ensure this essential experience. Because the primary clinical site is by definition the site where residents spend the majority of their time taking care of patients, to the extent possible, residents from the other five specialties should utilize the primary clinical site for a part of their clinical education. A neurological surgery block schedule that maximizes such interdisciplinary opportunities for junior residents is preferred. Required—rather than elective—rotations at the primary clinical site for the outside rotators are preferred as that ensures the continuous presence of the outside rotators at the primary clinical site. The size of the outside specialty program (i.e., the number of residents at each level) and length of the rotation are also important considerations. In some neurological surgery programs, the primary clinical site may not host either its own specialty programs or rotators from some of the other specialty programs. In that case, the Committee would consider a plan that described how such interdisciplinary patient care experiences and clinical learning might occur at sites used by the neurological surgery program. Considerations important for this would, in addition to the above, also include the number of outside sites proposed, the distance of the sites from the primary clinical site, and the planned rotations and opportunities for the desired experiences at each site. As the number and distance of sites increases, the Committee's concern for continuity of patient care and supervisory continuity increases, as do concerns for resident well-being. Substitution of other specialties for anesthesiology, diagnostic radiology, neurology, pediatrics, and surgery will not be considered. A specific request to consider a family medicine program whose residents spend the majority of their time in the same capacity as internal medicine residents would be considered in lieu of internal medicine residents. The details of the family medicine program curriculum would need to be provided as part of the exception plan.

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.a)]*	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 or American Osteopathic Board of Surgery (AOBS). **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 or AOBS? *[Program Requirement: I.B.4.a)]*	No. Changes in rotations that in turn require a change to a program's participating sites are initiated by submitting a request for a participating site change in ADS. Residents may not rotate at the new proposed participating site until it has been approved by the Review Committee. This is required for any type of rotation, including away electives; one-time electives; standing electives; required rotations; and research rotations. Programs should contact the ABNS or AOBS 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.a) and I.E.1.]*	The Review Committee is concerned with the learning opportunities that will be available for the program's resident(s) rotating to the proposed site, as well as with 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).
What are the expectations for the distribution of institutional cases across the spectrum of neurological surgery procedures? *[Program Requirement: I.D.4.a)]*	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 and guidelines for changes in complement and participating sites are available on the Documents and Resources page of the Neurological Surgery section of the ACGME website. The distribution should mirror expectations for minimum numbers in the defined case categories; and sites used for a specific subset of case types should reflect sufficient resources in that subset of case types.
Personnel	

Question	Answer
What defines “major” clinical responsibilities for a site director? *[Program Requirement: II.B.2.h)]*	“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.
How does the Review Committee judge physician faculty member qualifications for those faculty members who do not have current certification in the specialty? *[Program Requirement: II.B.3.b).(1)]*	The Review Committee will consider faculty member certification by non-domestic entities, as well as neurological surgeons who are on a path to ABNS or AOBS certification in neurological surgery based on review of the submitted CV.
What forms of certification are acceptable to the Review Committee for core physician faculty members? *[Program Requirements: II.B.4.c)-II.B.4.d)]*	The Review Committee will accept ABNS or AOBS certification in neurological surgery, and will consider faculty member certification by non-domestic entities on a case-by-case basis based on review of the submitted CV.
Can the program coordinator be assigned duties unrelated to the neurological surgery residency program? *[Program Requirement: II.C.2.a)]*	For programs with 21 or more residents, the coordinator may not be assigned other duties. The intent of the requirement for 100 percent FTE support is that the program coordinator for a larger neurological surgery residency program be in a full-time role with the program, and not given other duties unrelated to the program. Program coordinators of programs with fewer than 21 residents may be assigned other duties, provided that they receive the applicable support outlined in II.C.2.a) for the Neurological Surgery program, and that the total FTE does not exceed 100% for all responsibilities.
Resident Appointments	

Question	Answer
How must a request for a change in resident complement be submitted? *[Program Requirement: III.B.]*	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 it. 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, these 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.
How does the Review Committee consider case volume in making decisions about a request for an increase in complement? *[Program Requirement: III.B.]*	When reviewing a request for an increase in complement, the Review Committee examines both the Defined Case Category Minimums Report for the most recent graduating resident(s), as well as the available Institutional Case Report for all sites for the most recently completed academic year. Both reports should provide an indication of excess resources for the requested increase. Meeting the defined case category minimums is not sufficient to indicate sufficient resources for additional residents. 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. The educational rationale should clearly describe how the increase in complement would improve the education of all residents in the program and be reflected in the proposed block diagram.

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If accepting a transfer resident into the program, what procedures must be followed? *[Program Requirement: III.C.2.]*	Programs considering accepting a transferring resident at the PGY-2 level and above should send a letter to the Executive Director of the Review Committee at the ACGME outlining the plans, including the rationale, available resources, educational plan for the transferring resident (e.g., identification of specific gaps, etc.), and plan for integrating the resident into the program's learning environment culture. Contact the Executive Director to discuss any specific issues, such as a potential need for a temporary complement increase, prior to sending the letter. Review Committee approval must be documented prior to accepting a transfer resident. In addition, as noted in the requirement, the program director must have received written verification of the resident's previous educational experiences and Case Log report, and a summative competency-based performance evaluation. This information must be maintained in the resident's file. A newly appointed transfer resident must be entered into ADS before the resident can be added to the Case Log System for the receiving program. This will then allow the transfer of cases from the previous program into the receiving program. The certifying board may have requirements governing resident transfers. Accordingly, it is recommended that plans to accept a resident from another program be discussed with the certifying board the resident is tracking towards prior to appointment of the resident. Following the existing ABNS policy, programs may request elective credit for education and training received in another country, such as the UK or Australia. 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. Contact the Review Committee Executive Director for additional information.
What must a program do if it wishes to accept a resident transferring from a program that is closing? *[Program Requirement: III.C.2.]*	The Committee will expedite review of requests to appoint a resident displaced due to another program's closure. A request for a temporary increase in resident complement must be submitted following the procedures outlined above.
Educational Program	

Question	Answer
Will currently accredited programs that have more than five participating sites and/or sites greater than one hour from the primary clinical site be re-reviewed for compliance with the requirements limiting participating sites to five? *[Program Requirements: IV.C.1.a)-IV.C.1.a).(1)]*	Yes. The Review Committee, thorough its past program reviews, has determined that all currently accredited programs are in substantial compliance. However, program elements may change over time. Therefore, at the time of each comprehensive accreditation site visit, programs will be reassessed for substantial compliance with the requirement.
What are the Review Committee's expectation's regrading requests related to either the number of sites or sites with a travel time greater than one hour from the primary clinical site? *[Program Requirement: IV.C.1.a).(2)]*	The intent of the requirement is to maintain an integrated educational environment and prevent undue burden on residents. It is recognized, however, that distant participating sites requiring resident re-location may occasionally be necessary to allow exposure to required education and training experiences (e.g., a pediatric rotation) or for exceptional education and training experience in a subspecialty area. It is recognized that a regional participating site that requires one-way travel times in excess of one hour from the primary clinical site may occasionally provide a beneficial educational experience. In such instances, the program should outline the educational rationale, resources that will be provided (e.g., for travel, housing), in addition to plans for mitigation of adverse effects on resident well-being, and for maintenance of the integrity of the educational experience (e.g., regarding conference attendance, peer interaction). Guidelines for Participating Site Change Requests are available on the Documents and Resources page of the Neurological Surgery section of the ACGME website. Once a participating site is added in ADS, Review Committee staff members will contact the program to obtain the necessary information prior to the Committee's review.
If an individual has been a resident in an ACGME-accredited 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 Case Log System for the neurological surgery program? *[Program Requirement: IV.C.7.c).(1)]*	The Review Committee will permit cases logged during a recently completed PGY-1 in 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 transfer to a tracked defined case category are those related to the critical care requirements. However, all such cases will transfer as "senior" cases and therefore, will not count toward the minimum number requirements for neurological surgery. Contact the Review Committee Executive Director for more information.

Question	Answer
What resources are available to program directors for use in planning and monitoring residents' educational experiences? *[Program Requirement: IV.C.7.a)-e)]*	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.
What are the expectations regarding residents' participation in research? *[Program Requirements: IV.D.1.c); IV.D.3.a).(1)]*	All residents are expected to have instruction and structured education in the foundation, design, conduct, and analysis of research and its application relevant to neurosurgical conditions and care. This can be accomplished through a variety of educational experiences, such as: 1. Didactic education regarding research design, methods, and statistical analysis 2. Structured discussion and critical evaluation of primary research data and published literature (e.g., research forums, journal clubs) 3. Mentored experiential learning through direct research participation 4. Participation in a formal dedicated basic, translational, or clinical research experience during elective time is encouraged based on individual resident goals and interests.
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 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, which 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 their 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 (e.g., 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

Question	Answer
	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 p.m., the resident should be able to return to lead the service hospital rounds at 6:00 a.m. the following morning. The educational value of this type of leadership experience is important for a resident's maturation as a clinician and surgeon.
What must a PGY-1 resident demonstrate to progress to being supervised indirectly with direct supervision available? *[Program Requirement: VI.A.2.b).(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 the resident 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 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 basic venous access procedures, including establishing intravenous access

Question	Answer
	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 advanced vascular access procedures, including central venous catheterization, temporary dialysis access, and arterial cannulation 2. EVD/ICP monitor placement 3. halo placement/traction 4. lumbar drain/puncture 5. pump/shunt reprogramming 6. repair skin and soft tissue lacerations 7. advanced airway management a) endotracheal intubation b) tracheostomy

Question	Answer
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 in their final year of the educational program? *[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.
What are some specific examples of circumstances when neurological surgery residents may stay or return to the hospital with fewer than eight hours free of clinical responsibilities? *[Program Requirements: VI.F.2.a) 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.)