

CRITERIA AND STANDARDS FOR NEUROLOGIC SURGERY PROGRAMS

- 1. REASON FOR ISSUE:** This VHA Handbook establishes procedures for the Department of Veterans Affairs (VA) Veterans Health Administration (VHA) Neurologic Surgery Programs.
- 2. MAJOR CHANGES:** This Handbook provides guidance for the administration of Neurologic Surgery Programs.
- 3. RELATED DIRECTIVE:** VHA Directive 1102 (to be published).
- 4. RESPONSIBLE OFFICE:** The Director, Surgical Service (111B), is responsible for the contents of this VHA Directive. Questions may be referred to 202-273-8505.
- 5. RECISSIONS:** None
- 6. RECERTIFICATION:** This document is scheduled for recertification on or before the last working day of January 2006.

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Under Secretary for Health

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CRITERIA AND STANDARDS FOR NEUROLOGIC SURGERY PROGRAM

1. PURPOSE

The Neurologic Surgery Program criteria and standards have been developed to meet the planning needs of Department of Veterans Affairs (VA) medical centers and Veterans Integrated Service Networks (VISNs), and for use by Veterans Health Administration (VHA) Headquarters in the uniform review of Neurologic Surgery Program proposals.

2. BACKGROUND

The Surgical Service Neurologic Surgery Committee will be the monitoring body for Neurologic Surgery Programs within VA. Membership on this Committee will include both VA and non-VA members in the field of Neurologic Surgery. One member shall be a member of the American Association of Neurologic Surgery. The Committee will be responsible for making recommendations for appropriate program locations to assure effective distribution of workload, quality care improvements, program terminations, and other monitoring activities for Neurologic Surgery Programs. The programs are established in highly affiliated facilities with residency training programs in Neurologic Surgery. All programs must adhere to, and operate within, the guidelines of the criteria and standards that have been established to assure quality programs.

3. SCOPE

a. The criteria and standards for Neurologic Surgery will be reviewed by VHA Headquarters periodically, or at least every two years, and revised as necessary based upon further analyses and experience with their use. It is recognized that in certain circumstances local conditions may exist which justify an adjustment of these standards. Such adjustments will be reviewed by VHA Headquarters on a case-by-case basis when accompanied by supportive information justifying the need for the proposed adjustment.

b. There will be ongoing professional monitoring and evaluation of the quality and appropriateness of care and treatment of patients, including review of operative mortality, morbidity and workload of each VA medical center performing Neurologic Surgery at a frequency of no less than two times per year. Such reviews will be performed by the Surgical Service Neurologic Surgery Committee in accordance with requirements of Title 38 United States Code (U.S.C.) 7311, VA regulations, and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) policy.

c. The Committee will review the qualifications of surgeons and radiologists, and will recommend to the Under Secretary for Health, certain facilities to perform highly specialized Neurologic Surgery procedures for epilepsy surgery, Parkinson's Disease and radiosurgery.

d. The Neurologic Surgery Committee will report its findings directly to the Director, Surgical Service and Chief Consultant, Acute Care Strategic Healthcare Group. The Director, Surgical Service will report program concerns to the VISN Director(s) affected by these concerns. When there is a recommendation for taking an adverse action against a program by

placing it on probation or suspension or by closing a program (see pars. 11e, 11f, and 11g), both the VISN Director and the Under Secretary for Health will be advised of these findings. It will be the final decision of the Under Secretary for Health to determine the appropriate action.

4. GOAL

The goal of the Neurologic Surgery program is to provide the highest quality of care in the most cost-effective manner possible. **NOTE:** *Each program must perform at least 100 major neurosurgical cases each year as required by the Residency Review Committee of Neurologic Surgery. Under special circumstances this requirement may be waived (e.g., Puerto Rico, in a unique geographic position).*

5. COST-EFFECTIVE ALTERNATIVES FOR PERFORMING NEUROLOGIC SURGERY

- a. Total VA costs of Neurologic Surgery are to be reduced either through increased use of existing in-house programs at VA facilities or through contract programs where quality assurance can be assured.
- b. When proposing new VA in-house programs, the VISN must perform cost-benefit analyses to ensure that the local VA in-house cost of neurologic surgery is, in fact, lower than contract costs.

6. NEUROLOGIC SURGERY PROGRAM CRITERIA

- a. Neurosurgical programs are required to perform major neurosurgical cases each year in order to maintain the quality of care necessary to train Neurologic Surgery residents and to retain skilled staff and support services for Neurologic Surgery-affiliated care.
- b. Designated Neurologic Surgery Programs must have adequate volume to ensure that neurosurgical surgical staff and support services attain and sustain required clinical skills.
- c. Operating Room (OR) and SICU personnel should receive appropriate in-service and continuing medical education for competency in their respective areas.

7. NEUROLOGIC SURGERY PROGRAM STANDARDS

- a. All neurosurgeons must be certified by the American Board of Neurologic Surgery or equivalent certification or tracking toward certification.
- b. Professional Standards Boards must review general competency of neurosurgeons and anesthesiologists every two years.

8. DEFINITIONS:

- a. **Criterion.** A criterion is defined as “a measurable characteristic of a health service.”
- b. **Standard.** A standard is defined as “a quantitative value or level of achievement with respect to a specific criterion which represents acceptable performance.”
- c. **Neurologic Surgery.** Neurologic Surgery is defined as the operative and non-operative (i.e., prevention, diagnosis, evaluation, treatment, critical care, and rehabilitation) disorders that affect the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply, and the operative and non-operative management of pain. As such, neurologic surgery encompasses the modern treatment of disorders of the brain, meninges, skull, and their blood supply, including the extracranial carotid and vertebral arteries, disorders of the pituitary gland, disorders of the spinal cord, meninges, and spine; disorders of the cranial and spinal nerves throughout their distribution; and disorders of the autonomic nervous system.
NOTE: This definition was taken from Associated Colleges of Graduate Medical Education (ACGME) program requirements for residency programs.
- d. **Operative Mortality.** Any death within 30 days of surgery, plus any death after 30 days caused by a complication that was first manifested within 30 days of surgery.
- e. **Major Neurologic Surgery Procedures.** Major Neurologic Surgery procedures include, but are not limited to:
 - (1) Craniotomies for trauma, tumors, aneurysms, and vascular malformations.
 - (2) Stereotactic surgery.
 - (3) Surgery for epilepsy.
 - (4) Extracranial surgery, including carotid surgery.
 - (5) Spinal surgery to include: spinal vascular malformations, carotid surgery, stereotactic biopsy, and transphenoideal approach to basilar tumors.

9. AFFILIATION:

An approved VA Neurologic Surgery Program is required to:

- a. Establish and maintain affiliation with an approved residency training program in Neurologic Surgery.
- b. Maintain a full time Neurologic Surgery resident. *NOTE: A program designated by the Residency Review Committee for Neurologic Surgery as integrated with an affiliated program may request a waiver of this requirement from the Neurologic Surgery Committee.*

10. REFERRAL OF PATIENTS REQUIRING NEUROLOGIC SURGERY

When possible, VA medical centers should refer patients for elective major neurosurgical procedures to VA medical centers with established Neurologic Surgery Programs. Headquarters will maintain a file of VAMCs with special capabilities, e.g., radiosurgery, epilepsy surgery, surgery for Parkinson's disease and interventional neuroradiology.

11. QUALITY ASSURANCE:

a. **Operative Workload Statistics With Morbidity and Mortality Rates.** Each Neurologic Surgery Program will submit to VHA Headquarters operative workload with morbidity and mortality statistics for each 6-month period for review by the Residency Review Committee.

NOTE: This information, in identical format, is a requirement of the Residency Review Committee for each approved Neurologic Surgery Program. This report details the number and outcome of each separate operative procedure (i.e., craniotomy for tumors, craniotomy for trauma, etc.) whereas the National Surgical Quality Improvement Program (NSQIP) reports the statistical evaluation (risk-adjusted observed to expected (O/E) ratio) of the sum of outcomes of all operations performed by each service, not for each separate operation. The two reports together provide the optimal quality assurance instrument.

b. **Volume.** VA medical centers or integrated programs performing fewer than 100 major neurosurgical cases each year will be reviewed on a case-by-case basis by the Neurologic Surgery Committee considering:

- (1) Reasons for non-compliance,
- (2) Total workload of surgeons, and
- (3) Outcomes of cases performed.

c. **Indications for Written Evaluation.**

(1) Any program that has an operative mortality greater than two times the VA national average for a period of six months, or greater than or equal to 10 percent, will be evaluated by the Residency Review Committee.

(2) Any program that has greater than a five percent average operative mortality for a two-year period for Neurologic Surgery will be required to perform a written assessment of all Neurologic Surgery deaths occurring during the second year of that two-year period, unless it was audited during that two-year period.

(3) Any program that, in the opinion of the Residency Review Committee, is considered not within reasonable compliance with submission of VA Form 10-0386, Semi-Annual Report of Neurologic Surgery on Veterans, will be required to perform a written assessment of all deaths during that six-month period.

d. **Indications for Site Visit.**

- (1) Two consecutive six-month periods that required written assessment.
- (2) Findings from written assessments that suggest possible deficiencies that are a source of concern to the Committee.
- (3) Two consecutive years with volume of fewer than 75 cases per year.
- (4) Special requests from a VA medical center Director, Network Director, or VHA Headquarters to review a Neurologic Surgery program.
- (5) Failure to submit required paper audits.

e. **Indications for Placing Programs on Probation.**

- (1) The site team recommends, and the Committee concurs, that:
 - (a) If serious problems are present at a VA medical center which need to be corrected as a matter of urgency, and
 - (b) If these problems are not corrected in a short period of time, Neurologic Surgery at that VA medical center could be suspended or closed.
- (2) The subsequent procedure will be as follows:
 - (a) The program shall be placed on probation for a period of 6 to 12 months (under unusual circumstances this period could be extended) and instructed to meet certain requirements and correct specific deficiencies.
 - (b) Before the end of the probation period, the medical center Director will report progress to the Neurologic Surgery Committee through the VISN Director.
 - (c) A site visit will be made when deficiencies are reported to have been corrected or, at the latest, at the end of the probationary period, to determine whether:
 1. Probation should be lifted,
 2. Probation should continue, or
 3. The program should be suspended or closed.

f. **Indications for Placing Programs on Suspension.**

If indications from a program review, or a site visit by members of the Committee, show that:

(1) Serious problems are present at a VA medical center which need to be corrected immediately and the Neurologic Surgery Committee recommends suspension of the program to the Under Secretary for Health with notification to the affected VISN Director.

(2) If this recommendation is approved by the Under Secretary for Health, Neurologic Surgery activities will cease immediately at that facility. Recommended changes must be implemented within a designated period of time or further action may be indicated.

g. **Indications for Program Closure**

(1) At the end of the probationary period or following suspension, the program will be re-evaluated by members of the Committee. If specific critical deficiencies identified during the initial probationary period or suspension have not been corrected, a recommendation for closure will be initiated in the same manner as for suspension.

(2) The Committee may elect to defer a recommendation for closure of a program if extraordinary circumstances warrant it.

12. STAFFING FOR NEUROSURGICAL PROGRAMS

A Neurologic Surgery team must have at least one certified neurosurgeon who participates in each neurosurgical operation.

a. It is desirable to have a neurosurgical nurse coordinator for management and coordination of the patient's nursing care and a trained technician.

b. Support services should include neurology, neuroradiology, neuropathology, and trained surgical and intensive care nurses.

13. REQUIREMENTS FOR ESTABLISHING "NEW" NEUROLOGIC SURGERY PROGRAMS

VA medical centers desiring to initiate Neurologic Surgery Programs must demonstrate the following:

a. **Caseload.** New programs should project at least 100 cases per year to be attained within three years.

b. **Impact.** New programs will not adversely impact existing VA medical center in-house programs that are currently performing 100 or more neurosurgical procedures per year.

c. **Affiliation.** New programs must have an affiliation with an approved residency training program in Neurologic Surgery.

d. **Staff.** New programs must provide appropriately trained personnel for Neurologic Surgery to include, but not be limited to:

- (1) Neurosurgeons,
- (2) Neuroradiologists,
- (3) Neuropathologists (can be at affiliated institution),
- (4) Neurologists,
- (5) Neurosurgical residents,
- (6) Operating room nurses,
- (7) Intensive care nurses,
- (8) Rehabilitation staff,
- (9) Radiotherapists (can be at affiliated institution), and
- (10) Nuclear Medicine staff.

e. **Facility requirements.** Facility requirements include:

- (1) Laboratories with capability for:
 - (a) Diagnostic, interventional and other support services,
 - (b) Neurology assessments, and
 - (c) Clinical Neurophysiology.
- (2) Adequate operating room space, equipment and scheduled time to perform Neurologic Surgery procedures.
- (3) Comprehensive neurologic rehabilitation program.
- (4) Neurological Outpatient Clinic.

14. SURGICAL INTENSIVE CARE UNIT (SICU)

Adequate SICU beds must be available for a Neurologic Surgery Program.