



**American Association of Neurological Surgeons  
American Board of Neurological Surgery  
Congress of Neurological Surgeons  
Society of Neurological Surgeons**

**Position Statement**

**on**

**INTRAOPERATIVE RESPONSIBILITY OF THE PRIMARY NEUROSURGEON**

***Introduction***

The fundamental basis of the patient-physician relationship is trust. It is the glue of the sacred bond between patients and physicians; all other considerations derive from it. This trust is mutual — the belief by patients that if they put their lives in their neurosurgeons' hands, neurosurgeons will do their best to ensure an optimal outcome. A tangible manifestation of this trust is informed consent.

This trust-based obligation extends not just to the individuals neurosurgeons are presently treating, but also to future patients. To those currently awaiting their services, neurosurgeons owe efficiency in the use of limited resources, including their time. They must also train the next generation of neurosurgeons how to provide excellent care for future patients.

These goals of efficiency and training young surgeons may require that a senior surgeon schedule two operations that overlap and/or delegate portions of an operation to a surgeon-in-training. This delegation must occur only under circumstances that preserve both safety and trust. Safety is grounded in the principle of graduated responsibility — as neurosurgeons-in-training accumulate skill, they are allowed by the senior surgeon to perform more challenging portions of operations with greater independence. Maintenance of trust requires that neurosurgeons inform their patients of their role in operations, including the possibility that they may be absent from the operating room during part of the procedure.

Given that the mission of organized neurosurgery is to advance the quality of care of neurosurgical patients while promoting excellence in education and research, the following guidelines are recommended with respect to the issue of “overlapping surgery.”

***General Statement***

The primary attending neurosurgeon is personally responsible for the patient's welfare throughout the operation. In general, the patient's primary attending neurosurgeon should be in the operating suite or be immediately available for the entire surgical procedure. There are instances consistent with good patient care which are valid exceptions. However, when the primary attending neurosurgeon is not present or immediately available, another attending neurosurgeon should be assigned to be immediately available.

The definitions at the end of this Statement provide essential clarification for terms used herein.

### ***Concurrent or Simultaneous Operations***

Concurrent or simultaneous operations occur when the critical or key components of the procedures for which the primary attending neurosurgeon is responsible are occurring all or in part at the same time. The critical or key components of an operation are determined by the primary attending neurosurgeon. A primary attending neurosurgeon's involvement in concurrent or simultaneous surgeries on two different patients in two different rooms is not appropriate.

### ***Overlapping Operations***

Overlapping of two distinct operations by the primary attending neurosurgeon occurs in two general circumstances.

The first and most common scenario is when the key or critical elements of the first operation have been completed and there is no reasonable expectation that there will be a need for the primary attending neurosurgeon to return to that operation. In this circumstance a second operation is started in another operating room while a qualified practitioner performs non-critical components of the first operation allowing the primary neurosurgeon to initiate the second operation, for example, during wound closure of the first operation. This requires a qualified practitioner to be physically present in the operating room of the first operation.

The second and less common scenario is when the key or critical elements of the first operation have been completed and the primary attending neurosurgeon is performing key or critical portions of a second operation in another room. In this scenario, the primary attending neurosurgeon must assign immediate availability in the first operating room to another attending neurosurgeon.

The patient needs to be informed in either of these circumstances. The performance of overlapping procedures should not negatively impact the seamless and timely flow of either procedure.

### ***Multidisciplinary Operations***

Contemporary surgical care may require multidisciplinary operations. During such operations, it is appropriate for neurosurgeons to be present only during the part of the operation that requires their surgical expertise. However, an attending neurosurgeon must be immediately available for the entire operation.

### ***Delegation to Qualified Practitioners***

The neurosurgeon may delegate part of the operation to qualified practitioners including, but not limited to residents, fellows, anesthesiologists, nurses, physician's assistants, nurse practitioners, surgical assistants or another attending under his or her personal direction. However, the primary attending neurosurgeon's personal responsibility cannot be delegated. The neurosurgeon must be an active participant throughout the key or critical components of the operation. The overriding goal is the assurance of patient safety.

### ***Procedure Related Tasks***

A primary attending neurosurgeon may have to leave the operating room for a procedure-related task. Such procedure-related tasks could include review of pertinent pathology ("frozen section") and

diagnostic imaging; a discussion with the patient's family; and breaks during long procedures. The neurosurgeon must be immediately available for recall during such absences.

### ***Unanticipated Circumstances***

Unanticipated circumstances may occur during procedures that require the neurosurgeon to leave the operating room prior to completion of the critical portion of the operation. In this situation, a backup neurosurgical attending must be identified and be available to come to the operating room promptly.

Circumstances in this category might include sudden illness or injury to the neurosurgeon, a life-threatening emergency elsewhere in the operating suite or contiguous hospital building, or an emergency in the neurosurgeon's family.

If more than one emergency occurs at the same time, the attending neurosurgeon may oversee more than one operation until additional attending neurosurgeons are available.

### ***Neurosurgeon-Patient Communication***

The surgical team involved in an operation is dependent on the type of facility at which the operation is performed and the complexity of the surgery. At a free-standing outpatient surgical center, many procedures are performed solely by the primary attending neurosurgeon with no assistant. In contrast, a complex procedure at an academic medical center may involve multiple qualified medical providers in addition to the primary attending neurosurgeon. As part of the pre-operative discussion, patients should be informed of the different types of qualified medical providers that will participate in their surgery (assistant attending neurosurgeon, fellows, resident and interns, physician assistants, nurse practitioners, etc.) and their respective role explained. If an urgent or emergent situation arises that requires the neurosurgeon to leave the operating room unexpectedly, the patient should be subsequently informed.

### ***Definitions***

In an effort to provide some standardization of nomenclature and terminology, the following definitions are provided:

- **Back-up neurosurgeon/neurosurgical attending**

The qualified neurosurgical attending who has been designated to provide immediately available coverage for an operation, during a period when the primary neurosurgeon might be unable to fill this role.

- **“Concurrent or simultaneous operations” (or surgeries)**

Surgical procedures when the critical or key components of the procedures for which the primary attending neurosurgeon is responsible are occurring all or in part at the same time.

- **“Critical” or “key” portions of an operation**

The “critical” or “key” portions of an operation are those segments of the operation when essential technical expertise and surgical judgment are required in order to achieve an optimal patient outcome. The critical or key portions of an operation are determined by the primary attending neurosurgeon.

- **Immediately Available**

Reachable through a paging system or other electronic means, and able to return immediately to the operating room. This should be defined more completely by the local institution.

- **Informed consent**

Informed consent is more than a legal requirement. It is a standard of ethical neurosurgical practice that enhances the neurosurgeon/patient relationship and that may improve the patient's care and the treatment outcome. Neurosurgeons must fully inform every patient about his or her illness and the proposed treatment. The information must be presented fairly, clearly, accurately and compassionately. The neurosurgeon should listen carefully to understand the patient's feelings and wishes and should answer all questions as accurately as possible. The informed consent discussion conducted by the neurosurgeon should include:

1. The nature of the illness and the natural consequences of no treatment.
2. The nature of the proposed operation, including the estimated risks of mortality and morbidity.
3. The more common known complications, which should be described and discussed. The patient should understand the risks as well as the benefits of the proposed operation. The discussion should include a description of what to expect during the hospitalization and post hospital convalescence.
4. Alternative forms of treatment, including nonoperative techniques.
5. A discussion of the different types of qualified medical providers who will participate in their operation and their respective roles.

The neurosurgeon should not exaggerate the potential benefits of the proposed operation nor make promises or guarantees. For minors and incompetent adults, parents or legal guardians must participate in the informed consent discussion and provide the signature for elective operations. Any adequately informed, mentally competent adult patient can refuse any treatment including operation. When mentally incompetent patients or the parents (guardians) of minors refuse treatments jeopardizing the patient's best interest, the neurosurgeon can request legal assistance.

When patients agree to an operation conditionally or make demands that are unacceptable to the neurosurgeon, the neurosurgeon may elect to withdraw from the case.

- **Multidisciplinary Operations**

One example of this would be a procedure where a surgeon of one specialty provides the exposure required by a second surgeon who performs the main surgical intervention (e.g., a general or thoracic surgeon providing exposure for a neurosurgeon to operate on the spine). Another example would be an operation that requires the involvement of two or more surgeons with different specialty expertise (e.g., neurosurgeons and plastic surgeons working to repair complex craniofacial defects).

- **“Overlapping or sequenced” operations for neurosurgeons**

The practice of the primary neurosurgeon initiating and participating in another operation when he/she has completed the critical portions of the first procedure and is not essential for the final

phase of the first operation. These are by definition surgical procedures where key or critical portions of the procedure are not occurring simultaneously.

- **Physically Present**

Located in the same room as the patient.

- **Primary Attending Neurosurgeon**

Considered the neurosurgical attending of record or the principal neurosurgeon involved in a specific operation. In addition to his/her technical and clinical responsibilities, the primary neurosurgeon is responsible for the orchestration and progress of a procedure.

- **Qualified Practitioner**

Any licensed practitioner with sufficient training to conduct a delegated portion of a procedure without the need for more experienced supervision and who is approved by the hospital for these operative or patient care responsibilities.