

**Position Statement**  
on  
**TELEMEDICINE**

**Background**

In 1996, the Institute of Medicine (IOM) published the report “Telemedicine: A Guide to Assessing Telecommunications for Health Care,” where telemedicine was defined as “*the use of electronic information and communications technologies to provide and support health care when distance separates participants.*” There are currently three broad categories of telemedicine technologies: store-and-forward, remote monitoring, and (real-time) interactive services, demonstrating that since the release of the IOM report, the definitions of telemedicine and telehealth have continued to evolve and further change is certain.

Neurological surgery is a high acuity specialty with a limited number of practitioners; as a result, urgent or emergent transfer of patients to tertiary hospitals with continuous neurosurgical coverage is frequently required. Transfers may be effected for consultation due to the natural risk aversion of non-specialist physicians who may be faced with a neurosurgical condition and feel ill-equipped to assess the patient or offer treatment. Neurosurgical providers are not evenly geographically distributed, which can place a significant travel burden on patients, especially those with non-urgent issues. The disparity between the availability of neurosurgical services and the time-sensitive nature of neurosurgical conditions has led to an interest in the use of electronic technologies to overcome these challenges.

**AANS/CNS Position Statement**

The timely, effectual and high-quality delivery of neurosurgical care remains the paramount mission of neurosurgeons and their neuroscience colleagues. Through the adoption of advances in telemedicine and telehealth technology, access to high-quality neurosurgical services can be expanded to patients across our nation’s fifty states, territories and the District of Columbia, regardless of location. In addition, a critical part of this expansion is fair and equitable reimbursement for telemedicine and telehealth services across all payors, both public and private. The deployment of neurosurgery services via telemedicine and telehealth allows more patients to receive timely intervention and facilitate better care coordination. The AANS and CNS support appropriate use of telemedicine and telehealth technologies to maintain our high-quality standards of care in neurosurgery, as well as the use of streamlined state medical license processes, development of comprehensive malpractice insurance programs, and other necessary tools that would support the efficient adoption of telemedicine and telehealth technologies in neurosurgery.

**Rationale**

**Definitions**

**Definition** (Adopted from the Federation of State Medical Boards): “Telemedicine” means the practice of medicine using electronic communications, information technology or other means between a licensee in one location, and a patient in another location with or without an intervening healthcare provider. Generally, telemedicine is not an audio-only, telephone conversation, e-mail/instant messaging conversation, or fax. It typically involves the application of secure video conferencing or store and forward technology to provide or support healthcare delivery by replicating the interaction of

a traditional, encounter in person between a provider and a patient. “Telemedicine Technologies” means technologies and devices enabling secure electronic communication and information exchange between a licensee in one location and a patient in another location with or without an intervening healthcare provider. Telemedicine visits are usually facilitated via synchronous, real-time or asynchronous, store & forward, passive monitoring or active electronic communications and information exchange between a licensee in one location and a patient in another location with or without an intervening healthcare provider.

Alternate Definition (Adopted from ATA (American Telemedicine Association): The definition of telemedicine services shall be the use of synchronous video conferencing, remote patient monitoring, and asynchronous health images or other health transmissions supported by mobile devices (mHealth) or other telecommunications technology by a health care provider to deliver health care services at a site other than the site where the provider is located relating to the health care diagnosis or treatment of a patient.

Live-and-interactive Telemedicine: Live interactive telemedicine care delivery takes advantage of video conferencing as its core technology. Participants are separated by distance but interact in real time. By convention, the site where the patient is located is referred to as the originating site, and the site where the consultant is located is known as the distant site.

Store-and-forward Telemedicine: Refers to a method of providing asynchronous consultations to referring providers or patients. A history and a set of images are collected at the point of care and transmitted for review by the consultant. In turn, the consultant provides a consultative report back to the referring provider or patient at the point of care. Store-and-forward telemedicine is used in several settings: teletriage, teleconsultation and patient-initiated consultation requests.

## ***Principles***

Where an existing physician-patient relationship is not present, a physician should take the appropriate steps to establish a physician-patient relationship consistent with the following principles:

- Physicians and other health practitioners delivering telemedicine services must abide by state licensure laws and state medical practice laws and requirements.
- There should be reasonable provisions for choosing a provider should circumstances allow. Patients should be informed about the licensure and board certification qualifications of the health care practitioners who are providing the care in advance of their encounter when possible.
- A documented medical evaluation and collection of relevant clinical history commensurate with the presentation of the patient to establish diagnoses and identify underlying conditions and/or contraindications to the treatment recommended/provided must be obtained before providing treatment, including issuing prescriptions, electronically or otherwise.
- Treatment and consultation recommendations made in an on-line setting, including issuing a prescription via electronic means will be held to the same standards of appropriate practice as those in traditional (encounter in person) settings.
- The standards and scope of telemedicine services should follow evidence-based practice patterns to ensure patient safety, quality of care, and positive health outcomes.
- Appropriate patient informed consent should include the use of telemedicine technologies to notify the patient of the proposed manner of diagnosis and treatment and disclose any anticipated limitations in drug prescribing via telemedicine. Additionally, the patient informed consent should include the identification of the patient and physician in advance of the delivery of the service, as well as patient cost-sharing responsibilities.
- Documentation of telemedicine services should ensure continuity of care. Systems that deliver telemedicine services must establish protocols for appropriate referrals for emergency services or non-urgent follow-up, and provisions for interruptions of ongoing delivery of telemedicine technologies.

## ***Reimbursement***

The current coverage of and payment for telemedicine services vary widely. The passage of the Balanced Budget Act of 1997 and the Telemedicine Communications Act of 1996 enabled payment for professional telemedicine consultation in 1999. Medicare reimburses for live-interactive consultations, office visits, individual psychotherapy, and pharmacologic management delivered via a telecommunications system for patients located in non-metropolitan statistical areas (non-MSAs). This includes nearly all rural counties. A definition and listing of qualified areas are available via U.S. Census data at <http://www.census.gov/population/metro>. However, there is no limitation on the location of the health professional delivering the medical service. In some states, Medicaid reimburses for telemedicine services as well, but many have restrictions.

Private insurers vary in their policies, but most will reimburse services provided to patients in rural areas. It is recommended that the provider writes a letter of intent to the insurer informing them that the provider will be billing for telemedicine services. For the latest reimbursement information, see the American Telemedicine Association or Center for Medicare & Medicaid Services (CMS) websites.

As of 2014, CMS reimburses store-and-forward telemedicine only as a demonstration project in Hawaii and Alaska. However, several states are currently reimbursing store-and-forward telemedicine for Medicaid patients. There are also private insurers that are paying for these modalities, including those that are part of a Medicare Advantage plan. Providers who wish to provide store-and-forward services should inquire with their payers regarding reimbursement.

Telemedicine has been shown to be cost-effective, efficient and equal in therapeutic value to face-to-face encounters, but widespread adoption has been limited due to inconsistent and fragmented payment policies. Furthermore, existing state by state medical licensure requirements imposes additional barriers to more rapid expansion. Other applications of telemedicine and telehealth technologies are not anticipated in the current payment paradigms, and the AANS and CNS urge the development of appropriate models to reimburse physicians for telemedicine services.

The AANS and CNS support the use of telemedicine services provided by board eligible/board certified neurosurgeons, as well as coverage and payment for those services when several important criteria are met:

- Physicians delivering telemedicine services must be licensed in the state in which the patient receives services, and must abide by that state's licensure laws and medical practice laws and regulations. Emergency treatment and situations that arise when a neurosurgeon's existing patient is traveling to another state should be exceptions to this requirement, though existing laws and regulations may still apply. The AANS and CNS support efforts by State Medical Boards to facilitate and lower burdens for physicians to obtain licenses in multiple states.
- Patients or referring physicians seeking telemedicine services must have a choice of neurosurgeon if possible, and the patient-provider relationship should be established following the principles outlined above. The delivery of telemedicine services must be consistent with state scope of practice laws. The AANS and CNS firmly believe that any use of non-physician clinicians in the provision of telemedicine should abide by the supervision requirements that would apply to rendering in-person services.
- The patient's relevant medical history must be collected as part of the provision of telemedicine services. For teletriage and teleconsultation, appropriate medical records should be available to the consulting neurosurgeon before or at the time of the telemedicine encounter.
- The provision of telemedicine services must be properly documented. These medical records should be available at the consultant site, and for teletriage and teleconsultation services, should also be available at the referral site.

- The provision of telemedicine services should include care coordination with the patient's existing primary care physician or medical home, and existing neurosurgeons if applicable. This should include, at a minimum, identifying the patient's existing primary care physician and neurosurgeon in the telemedicine record, and providing a copy of the medical record to those existing members of the treatment team who do not have electronic access to it. This is especially important, so that information about diagnoses, test results and medication changes are available to the existing care team.
- Organizations and clinicians participating in telemedicine should have an active training and quality assurance program for both the distant and receiving sites. In addition, those programs that are using telemedicine should have documentation of their training programs for any technician who is capturing clinical images and for any manager who is handling consults. Each organization should also maintain documentation on how the program protects patient privacy, promotes high quality clinical and image data, continuity of care, and care coordination for patients who may require subsequent in-person evaluations or procedures.
- Organizations and clinicians participating in telemedicine must have protocols for local referrals (in the patient's geographic area) for urgent and emergency services.

### ***Credentialing and Privileging***

The Joint Commission (TJC) has implemented standards for telemedicine. Under the TJC telemedicine standards, practitioners who render care using live interactive systems are subject to credentialing and privileging at the distant site when they are providing direct care to the patient. The originating site may use the credentialing and privileging information from the distant site if all the following requirements are met: (i) the distant site is TJC-accredited; (ii) the practitioner is privileged at the distant site for those services that are provided at the originating site; and (iii) the originating site has evidence of an internal review of the practitioner's performance of these privileges and sends to the distant site information that is useful to assess the practitioner's quality of care, treatment, and services for use in privileging and performance management.

Practitioners who render care using store-and-forward systems are viewed by TJC as "consultants" and may not be required to be credentialed at the originating site. However, standards can vary by state and organization.

### ***Privacy and Confidentiality***

Practitioners who practice telemedicine should ensure compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended, and its implementing regulations. Video or store-and-forward transmissions should be encrypted when transmitted via electronic means to ensure security. The handling of records, faxes, and communications is subject to the same HIPAA standards as apply in a standard office environment.

In the case of asynchronous or store-forward transmissions, HIPAA compliance is largely a matter of the originating site letting patients know that their information will be traveling by electronic means to another location for consultation. This should be noted in the consent form at the point of care, and the HIPAA notice of privacy practices. Also, all electronic transmissions should be encrypted and reasonable care should be taken to authenticate those providers who have electronic access to the records.

### ***Licensure***

Licensure, liability and risk management are important considerations in telemedicine practice. Since care may be rendered across state lines, clear telemedicine practice guidelines and comprehensive malpractice insurance policies will be required to protect patients and physicians.

Interactive telemedicine requires the equivalent of direct patient contact. In the U.S., telemedicine using interactive technologies is restricted to jurisdictions where the provider is permitted, by law, to practice. In other words, the provider using interactive technologies usually must be licensed to practice medicine in the jurisdiction where the patient is located.

For store-forward asynchronous telemedicine interactions, most states require the physician to be licensed in the same state as where the patient resides, even when he or she acts only as a consultant. Providers who wish to provide store-and-forward consultations across state lines should limit such consultations to originating states in which they are permitted, by law, to provide care.

A simplified state medical license process for those physicians looking to provide telemedicine services across state borders and use telemedicine to treat patients living in rural areas should be defined. The Federation of State Medical Boards' Interstate Medical Licensure Compact would not only expand telemedicine but also expand access to much-needed specialists who would be licensed to practice across multiple states that are participating in the compact. The Compact is active, and currently, seven (AL, ID, IA, KS, WV, WI, WY) of the 18 states in the Compact are ready to issue licenses through this mechanism. The remaining 11 are working to clarify/verify that their state medical boards are authorized to conduct background checks as required by the Compact. Bills to settle this issue appear to be moving quickly. The AANS and CNS support efforts to expand this to all 52 states.

### ***Medical Liability***

If a direct-patient-care-model (provider to patient) is used (no provider at the referring site), the consulting neurosurgeon bears full responsibility (and potential liability) for the patient's care. The diagnostic and therapeutic recommendations rendered are based solely on information provided by the patient. Therefore, any liability should be based on the information available at the time the consult was answered. In a consultative model (provider to provider), liability may be shared. However, the allocation of responsibilities will vary on a case-by-case and state-by-state basis.

In the triage and teleconsultation models (provider to provider), the referring provider ultimately manages the patient with the aid of the consultant's recommendations. The referring provider may accept the recommendations in part or whole or none at all, and the responsibility and potential liability in this scenario may be shared (between the referring provider and the consultant) based on the extent to which the recommendations were followed by the referring provider. If a direct-to-patient model (provider to patient) is used (no provider at the referring site), the responsibility and potential liability rest entirely on the tele-neurosurgeon. In this case, the tele-neurosurgeon would also be responsible to ensure proper follow-up and to address any medication complications. In both instances, neurosurgeons should verify that their medical liability insurance policy covers telemedicine services, including telemedicine services provided across state lines if applicable, before the delivery of any telemedicine service.

### ***Workforce***

Neurosurgical workforce optimization mandates utilization of neurosurgeons for those conditions requiring neurosurgical expertise as well as assisting with the determination of which patients will benefit from transfer to other care environments. This may be achieved through the development of regional protocols and criteria for consultation and transfer.

Rapid evolution in radiographic technologies has outstripped the capabilities and processes needed to provide true telemedicine services such that in many regions of the US, remote access to imaging from outside centers is available but no other telemedicine technologies. Neurosurgical consultation via telemedicine includes more than the remote reviewing of imaging. Care must be taken not to substitute neurosurgical expertise for sufficient radiology support to interpret radiographic imaging, so as not to overburden an already small neurosurgical workforce.

## ***Additional Issues for Direct-to-Patient or Patient-Initiated Telemedicine***

- Providers must exercise caution regarding direct prescribing for patients via electronic communications and should familiarize themselves with state regulations. States may have regulations that discourage or prohibit practitioners from prescribing for patients that they have not seen face to face. In many cases, the wording of these regulations is such that a live interactive teleconsultation would meet the requirements for a “face to face exam.” The Federation of State Medical Boards established a National Clearinghouse on Internet Prescribing located at [http://www.fsmb.org/ncip\\_overview.html](http://www.fsmb.org/ncip_overview.html). The Clearinghouse includes a state-by-state breakdown of jurisdiction, regulations, and actions related to the regulation of Internet prescribing.
- Providers providing direct-to-patient telemedicine must make every effort to collect accurate, complete, and quality clinical information. When appropriate, the provider may wish to contact the primary care providers or other specialists to obtain additional corroborating information.
- Photographs or images obtained from patients, their family members, or their friends outside of a clinical setting may not be of adequate quality, or may not include the appropriate lesions or areas, to make an accurate diagnosis.
- Mechanisms to facilitate continuity of care, follow-up care, and referrals for urgent and emergency services in the patient’s geographic area must be in place. Any new medications prescribed or changes in existing medications must be communicated directly to the patient’s existing care team (unless they have easy electronic access to the telemedicine record).
- The AANS and CNS believe that when creating directories of participating physicians or establishing network adequacy, an insurer should not consider telehealth access as a substitute for locally available neurosurgeons who can offer the full spectrum of care for neurosurgical diseases.
- The AANS and CNS support telemedicine services designed and dedicated to providing demonstrably high-quality patient care consistently.
- The AANS and CNS do not support telemedicine services that offer easy prescriptions without an adequate history, examination and valid/proper patient- provider relationship.
- The AANS and CNS do not support telemedicine services that prioritize business interests over the quality and safety of patient care.

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