POSITION STATEMENT: TELEMEDICINE

Background Information
The American Academy of Neurology (AAN) is a professional association of more than 34,000 practicing neurologists and neuroscience professionals with a deep and abiding interest in assuring the best possible care of patients with all types of neurologic disorders. With policymakers at the state and federal levels considering new policies regarding telemedicine, and with many neurologists moving to include telemedicine within their practices, it is important for the American Academy of Neurology to have an official position on the issue in order to advocate appropriately for its members.

Description of Issue
With telemedicine rapidly emerging as a form of patient care, it is important that policymakers consider access issues, reimbursement, liability issues, and licensing across state borders when discussing telemedicine policy.

AAN Position
While telemedicine cannot replace many of the hands-on skills and in-office assessments neurologists provide, patients in all US states, territories, and the District of Columbia should have access to telemedicine, regardless of location, and should have telemedicine services included in all subscriber benefits and insurance plans (Medicare, Medicaid, and private insurance). Physicians should be reimbursed equitably for telemedicine services and have access to a streamlined state medical license process. Comprehensive malpractice insurance policies are also needed.

Rationale
Definition of Telemedicine
Telemedicine involves the use of electronic communications—telephone, email, video conference, digital imaging, and other forms of Internet technology—to practice medicine from a location that is remote for the patient. It is an effective and efficient form of health care delivery, instantly connecting patients and physicians. The telephone and email are commonly used forms of communication to address patient care issues and are often used to develop or share a fairly detailed assessment of the patient’s condition, including ordering tests, starting or changing medications, with discussions of side effects, expected effects, etc. Telemedicine is a rapidly developing field, evolving as communications technologies change. It is enabling high-quality care, often allowing patients to avoid transfer to another facility while also improving the financial viability of the hospital that receives the service. Rural populations and military personnel in combat are increasingly using telemedicine to overcome barriers of distance and delay by bringing the physician and patient together in real time. It is used in the inpatient setting to provide care to patients who are seen in a remote emergency room, or are admitted to a remote hospital for an acute illness or chronic disorder.
Access Issues

Telemedicine for neurologic care, often called teleneurology, is most often applied to emergency stroke care and neurocritical care (Ganapathy, 2005). But it also has evolved to include long-term care for chronic neurologic conditions such as epilepsy (Ahmed et al., 2008), Parkinson disease (Samii et al., 2006), multiple sclerosis (Kane et al., 2008), dementia (Loh et al., 2007), and migraine headaches (Cottrell et al., 2007).

Patients should have access to telemedicine in all states, the District of Columbia, and US territories, as it is well-suited to provide medical care in both rural and urban locations lacking access to physician specialists such as neurologists. Access issues also can affect patients residing in nursing homes and rehabilitation facilities, as well as those unable to drive due to physical deficits.

Legislative action is recommended at both state and federal levels to include the benefits of telemedicine to populations with limited access to care regardless of location and the health insurance coverage they might have.

Cost-effectiveness and Reimbursement/Payment Parity

Telemedicine has been shown to be cost-effective, efficient, and equal in therapeutic value to face-to-face encounters. However, the technical costs and incongruent physician and hospital reimbursement have been a barrier to further dissemination. Telemedicine costs include the increased workforce of dedicated network program managers and personnel, higher estimates of inpatient care, inter-hospital transfer, rehabilitation, long-term care, caregiver costs, and a wider range of spoke-to-hub hospital network transfer rates.

Present data support the cost effectiveness of telemedicine for stroke from both the societal and hospital perspectives. For example, researchers at the Mayo Clinic have found that rural patients treated for stroke care via telemedicine incurred cost savings of $1,436 per patient, while also increasing their quality of life, when compared with seeing the stroke patient in person (Demaerschalk et al., 2013).

These results demonstrate that an upfront investment in telemedicine technology, connectivity, infrastructure, and stroke network personnel can be justified in our health system. The AAN supports the reimbursement of telemedicine consultations in the same fashion as face-to-face, telephonic, and email clinical encounters.

Liability and Multistate Licensing

Risk management is an important consideration in telemedicine practice, as physicians could be legally liable across state borders. The major issues include defining what constitutes telemedicine malpractice and determining where and against whom claims can be brought, because the care provided as part of telemedicine may be across state borders.

For example, the decision to administer or not administer thrombolysis for acute stroke is a prominent source of malpractice claims for neurologists, and telemedicine physicians managing acute stroke patients may be exposed to complex liability issues. Legislative policies are needed to clarify liability issues in the practice of telemedicine as well as to protect patients from adverse events. Broad, comprehensive malpractice insurance policies and clear telemedicine practice guidelines are required to protect physicians.
Standards for the engagement, training, and supervision of telemedicine providers are necessary. Advocating for appropriate competency of telemedicine physicians in evaluation and management; readily available technological support; careful and detailed informed consent discussions; and detailed, accurate chart documentation may best protect telemedicine physicians and patients alike. Guidelines for protecting patient confidentiality and following HIPAA regulations are important aspects that should be standardized to be applicable to telemedicine services.

The AAN also supports efforts to streamline state medical license processes for those physicians looking to practice across state borders and use telemedicine to treat patients living in rural areas.

**Position Statement History**

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**References**


