The American Academy of Neurology (AAN)—an association of more than 22,000 neurologists and neuroscience professionals dedicated to providing the best possible care for patients with neurological disorders—is an advocate for policy measures that promote high quality, safe, and cost-effective stroke care.

Stroke is the nation’s number three killer and a leading cause of adult long-term disability. According to the American Stroke Association, about 795,000 people suffer a new or recurrent stroke each year, with 137,000 not surviving. It is therefore vital that policymakers take an active role to address the improvements of stroke care. This includes supporting primary stroke center implementation in both urban and rural communities; access to comprehensive stroke centers, the endorsement of telestroke as an emerging technology, and proper reimbursement for advanced technological services and on-call visits and consultations.

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Primary Stroke Center Designation

The Academy supports the development and expansion of community, statewide, and regional networks of primary stroke and comprehensive centers, as it will improve the availability and quality of stroke care to those who live in all areas. The Academy encourages policymakers to consider the following when determining qualifications for a primary stroke center:

- That a neurologist(s) play a key role in the development and/or designation of primary stroke centers. This should include mandating that a neurologist be appointed to any primary stroke center task force, panel, or committee which policymakers might develop.
- That all hospitals be required to have a plan for the management of acute stroke patients that are published, updated, and easily accessible. Hospitals that lack neurologic or radiologic personnel should establish relationships with primary or comprehensive stroke centers (including via telemedicine) for rapid assessment and transfer as needed.
- That EMS personnel and systems, if geographically and logistically feasible, should be mandated to transport patients with a suspected acute stroke to the nearest stroke center.
- That when considering requirements for transporting patients to a stroke center, prerequisites for emergency personnel decision-making includes hospitals that can provide intravenous thrombolytic therapy within 4.5 hours of ischemic stroke onset or hospitals that have access to a fellowship-trained neurointerventionalists who can provide timely endovascular stroke therapies.
- Reciprocal transfer agreements are ideal mechanisms to ensure patient access to stroke care and return to their communities.

Rural Stroke Care

Practice of stroke care in rural areas has multiple challenges. These include geographic isolation, limited access to expert care, scarce hospital resources and, most significantly, a lack of experienced medical staff who can promptly and correctly diagnose and treat an acute stroke in a timely fashion. The Academy encourages policymakers to consider the following when addressing rural stroke care:

- EMS personnel and systems, if geographically and logistically feasible, should transport patients with a suspected acute stroke to the nearest primary stroke center.
- The Academy encourages stroke centers with more experience to act in partnership with local, smaller hospitals to facilitate the transportation and transfers of patients with stroke, with minimal delays. Models based on partnerships in rural areas utilizing a hub and spoke model of education and outreach may be necessary.
- The Academy encourages designated stroke centers to act as a local/regional resource to their constituencies, with a fiduciary relationship established between referring and accepting hospitals.

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Telestroke
Optimal treatment of acute stroke has a critical time component. Delays in therapy due to transfer of patients to stroke centers lessen the likelihood of a favorable outcome. The Academy recommends telestroke services as an acceptable alternative for hospitals lacking expertise in neurology, vascular neurology, or neuroradiological services that could address delays due to distance from skilled stroke treatment capabilities. Installation of telestroke services has the ability to:
• Compensate for a lack of local services by connecting smaller hospitals lacking critical elements of stroke care to hospitals that have this expertise.
• Evaluate an acute patient and accurately interpret a brain image within a short timeframe.
• Telestroke technology is readily available and modestly priced. Telemedicine hardware can also be used to bring stroke education and training to remote locations at low cost.

Stroke Systems of Care
The Academy encourages hospitals to participate in networks as a practical means of improving stroke care nationally, especially within rural or neurologically underserved communities, as this may allow a substantial number of stroke patients to be treated locally.

Reimbursement
• The Academy believes there should be equitable reimbursement for care provided via telemedicine and for being available to respond to stroke emergencies. Stroke centers accepting patients who received initial treatment at another hospital are not receiving equitably payment. This discourages development of stroke centers and has an impact on patient care.
• Currently there is no customary reimbursement for being on call or being available for telemedicine consultation and care. Unless the stroke neurologist is salaried for stroke call at an institution, the unplanned emergency room evaluation for acute stroke patients may interrupt prescheduled outpatient care at the office, or happen at night while at home, or perhaps require a full day of call out of the office.
• Work done in the hospital in general (except for critical care) is reimbursed at a lower rate than outpatient care, making stroke call even more onerous. The lack of equitable reimbursement for acute stroke management and telestroke results in a shortage of appropriately trained neurologists to provide acute stroke care.

Position Statement History
Reviewed by the Stroke Systems Work Group; unanimously approved by the Government Relations Committee on March 22, 2010; approved by the AAN Board of Directors on March 27, 2010 (AAN Policy 2010-14).