

Telestroke: Time is critical!

Stroke Care: Approximately 795,000 Americans suffer from strokes each year and more than 143,579 die¹. Effective treatment of acute ischemic stroke requires timely intervention. As a result, 24 hour “on-call” stroke teams are emerging to reduce the amount of time between arrival of a patient and treatment with tissue plasminogen activator (t-PA), so that the loss of brain function and stroke-related disability is minimized.

What is Telestroke?

Telestroke is a form of telemedicine and it relies upon real-time video conferencing technologies to help maximize the number of patients who receive cerebrovascular specialty consults. Telestroke programs can link hospitals without specialists to regional stroke centers and timely access to specially trained providers when travel and distance are an issue. Telestroke programs facilitate:

- The emergency room physician obtaining a cerebrovascular specialty consult for the patient
- The specialist gaining quick access to brain imaging and other diagnostic test results
- Completion of a visual, remote neurological exam
- A discussion of the risks and benefits between the patient, family and physicians (ER and specialist)

Why is telestroke important?

- Some hospitals (both urban and rural) don't have access to sufficient local or on-site acute stroke resources. There are only about four neurologists per 100,000 people in the US and not all specialized in stroke.²
- Current guidelines for acute ischemic stroke include the recommendation that eligible patients be treated with intravenous administration of the clot-busting drug t-PA within 4.5 hours of the first symptoms. But, despite its effectiveness in improving neurological outcomes and greater functional recovery, many patients with ischemic stroke are not treated with t-PA because they arrive too late or there are delays in assessment and administration of the medication.
- T-PA can be dangerous if given to the wrong patients.
- Using high quality video conferencing for remote examinations compares favorably to face-to-face neurologic examination³.
- It eliminates inequities resulting from geography and distribution of resources.

Opportunities for Improvement

- There are upfront costs to providers who implement telestroke programs, but the consultations are not always covered by insurers, including Medicare, even though they are likely to reduce the severity of impairment (permanent disability) and future (long-term) medical costs.
- State licensing laws prohibit the practice of medicine across state lines and current credentialing and privileging regulations create barriers.

For more information visit the Northwest Regional Telestroke Initiative at <http://strokeforum.doh.wa.gov/> or the American Stroke Association at <http://strokeassociation.org>

¹ <http://www.strokecenter.org/patients/stats.htm> accessed 3/3/2010

² <http://americanheart.mediaroom.com/index.php?s=43&item=733> accessed 3/3/2010

³ http://www.americanheart.org/downloadable/heart/124180011606620090507_topTenUseofTelemedicine.pdf accessed 3/3/2010