Telemedicine and Acute Stroke

Novant Health Stroke Symposium
October 3, 2015
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Specialists On Call

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Disclosures

• Employee of a for-profit telemedicine company
• All opinions are my own
Topics

• The Changing Landscape
• Why Telemedicine
• Barriers
• Future Directions
The Changing Landscape

- Stroke as an acutely treatable condition
- Advent of Alteplase
- Time is Brain
- Door to needle times
- Interventional therapy
- Certification for hospitals
- The financial picture
- Stroke as a business
Standard of Care

AHA/ASA Guideline

Guidelines for the Early Management of Patients With Acute Ischemic Stroke: Executive Summary
A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association

The American Academy of Neurology affirms the value of this guideline as an educational tool for neurologists.

Endorsed by the American Association of Neurological Surgeons and Congress of Neurological Surgeons
Endovascular Therapy for Stroke — It’s about Time

Anthony J. Furlan, M.D.
Time to Treatment With Intravenous Tissue Plasminogen Activator and Outcome From Acute Ischemic Stroke

Jeffrey L. Saver, MD
Gregg C. Fonarow, MD

Importance Randomized clinical trials suggest the benefit of intravenous tissue-type plasminogen activator (tPA) in acute ischemic stroke is time dependent. However, the extent to which individual patients are likely to experience a benefit from treatment is currently unknown.
Support for Certification

Revised and Updated Recommendations for the Establishment of Primary Stroke Centers: A Summary Statement From the Brain Attack Coalition
Mark J. Alberts, Richard E. Latchaw, Andy Jagoda, Lawrence R. Wechsler, Todd Crocco, Mary G. George, E.S. Connolly, Barbara Mancini, Stephen Prudhomme, Daryl Gress, Mary E. Jensen, Robert Bass, Robert Ruff, Kathy Foell, Rocco A. Armonda, Marian Emr, Margo Warren, Jim Baranski, Michael D. Walker and for the Brain Attack Coalition

*Stroke*. 2011;42:2651-2665; originally published online August 25, 2011; doi: 10.1161/STROKEAHA.111.64326.
5th Annual
NEUROSCIENCE BUSINESS SUMMIT:
November 5-6, 2015, Swissotel Chicago
Co-hosted with Rush University Medical Center

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Connecting Business Leaders

American Heart Association
American Stroke Association
CERTIFICATION
Meets standards for
Primary Stroke Center
What is Telemedicine?

• telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology – American Telemedicine Association
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• Aging, sicker population - Demand
• Expectations of care
• Physician shortage and maldistribution - Supply
• Technology adoption and limitations
• Money
Figure 29. Cumulative Percent Growth in Population, by Age Group (relative to 2006)

Source: Analysis of US Census Bureau Population Projections.
Figure 1. Baseline Physician FTE Supply and Demand Projections, 2006 - 2025
Patient care physicians per 10,000 population, 2009

NOTE: U.S. average is 25 per 10,000 population.
SOURCE: CDC/NCHS, Health, United States, 2011, Figure 19. Data from the American Medical Association and the American Osteopathic Association.
Evidence for Telemedicine

A Review of the Evidence for the Use of Telemedicine Within Stroke Systems of Care: A Scientific Statement From the American Heart Association/American Stroke Association

Stroke. 2009;40:2616-2634; originally published online May 7, 2009;
doi: 10.1161/STROKEAHA.109.192360
Stroke is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0039-2499. Online ISSN: 1524-4628
Obstacles and Solutions in the Implementation of Telestroke: Billing, Licensing, and Legislation
Mark C. Aita, Kim Nguyen, Robert Bacon and Kevin M. Capuzzi

Stroke. 2013;44:3602-3606; originally published online September 12, 2013;
doi: 10.1161/STROKEAHA.113.001889
Stroke is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 0039-2499. Online ISSN: 1524-4628
Barriers To Telemedicine

- Cost
- Physician and Hospital Acceptance
- Licensing and Privileging
- Liability
- Technology
Barriers to Stroke Telemedicine

- Awareness of need
- Inconsistent standards
- Pressures of time
- Physician acceptance of tPA
Awareness of Need

• Patients
  – Recognition of symptoms
  – Using 911

• EMS
  – Recognition of symptoms
  – Proper Transport

• Hospitals
  – Recognition of symptoms
  – Not much we can do
Inconsistent Standards

- Call for everything vs. call for stroke
- Time pressures on EDs
- Competing agenda items
- Misinformation
Pressures of Time

- Speed requires resources
- Speed requires coordination
- Speed sometimes can be too fast
ACEP’s tPA Debate Goes Public

A persistent, sometimes raucous, debate has led ACEP to open a published guideline for public comment.

By Ryan R. Radrick, MD, MS

The use of tPA, the American College of Emergency Physicians (ACEP) published a Clinical Policy statement regarding the use of tPA to treat patients with acute ischemic stroke.

This guideline outlines the key considerations for the use of tPA, including how to use it effectively and how to minimize its risks.

The guideline was developed by a panel of experts who reviewed the current evidence on the use of tPA in acute ischemic stroke and identified key considerations for its use.

The guideline also includes a decision tree that can help clinicians determine whether tPA is appropriate for a given patient.

The guideline is intended to help clinicians make informed decisions about whether to use tPA in acute ischemic stroke and to help patients and their caregivers understand the potential benefits and risks of tPA.

The guideline was developed in collaboration with the American Stroke Association, the American Heart Association, and the American Academy of Neurology.

The guideline is available for public comment until July 1, 2023.

Last month, KPMG polled readers to get an idea of where they stand on the issue of ACEP’s tPA guidelines.

Here’s what you said:

7% AGREE with the guideline as written

29% The guidelines need some modification

59% The guidelines need to be reviewed

4% Are not aware of the guidelines

20%

Acute Ischemic Stroke: What Works and What Hurts

The clinical trial data behind some of the ED’s most common practices

By Daniel M. Weinberger, MD

Recent clinical trial data suggest that aspirin may not be as effective as previously thought for the prevention and treatment of ischemic stroke. The trials also highlight the need for further research to determine the optimal use of aspirin in different patient populations.

The trials also suggest that thrombolytics may be more effective than aspirin for the treatment of ischemic stroke. However, the trials also highlight the need for further research to determine the optimal use of thrombolytics in different patient populations.

The trials also suggest that stroke prevention strategies may be more effective than aspirin for stroke prevention. The trials highlight the need for further research to determine the optimal use of stroke prevention strategies in different patient populations.

The American Heart Association recommends aspirin for the treatment of ischemic stroke, but the evidence for the optimal use of aspirin in different patient populations is limited.

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Conflicts of Interest on Guidelines Ramp Up tPA Controversy

By Gino Shway

A developing picture in the field of limited, physician-directed approaches to the withholding of clinical practice guidelines (IPCGs), suggesting that in some cases, they have become more indicative of regulatory tools to authorize labeled medications (2013/06/03).

After teaching on the recent policy changes to the American Academy of Neurological Surgeons and the American Academy of Neurological Surgeons and the Development of Neurological Surgeons, a recent study in the medical journal Neurosurgery (2013/06/03) raised new questions regarding the efficacy of current treatment strategies for patients with ischemic stroke. The new policies, in essence, have led to a situation where the only global neurological association that has published guidelines is the American Academy of Neurological Surgeons (AANS), which has previously endorsed the use of t-PA (tissue plasminogen activator [tPA]) for the treatment of ischemic stroke in patients with medical conditions that warrant its use.

While the controversy continues, some doctors are calling for more research into the effectiveness of the guidelines, particularly in light of the high rate of strokes among older patients and the growing number of俐 that patients are being treated outside of the guidelines.

Why Are Doctors Financial Idiots?
Future of Stroke Telemedicine

• Improved stroke care methods
• Smarter use of technology
• Wider acceptance
• Paradigm shift
Thank You