Community Hospital100
For Hospitals & Health Systems Providing Community-Based Care

Hospital Solutions | White Paper Series

In cooperation with: PHILIPS

September 2013

About Community Hospital 100

Community Hospital 100 Leadership & Strategy Conference
October 20 – 22, 2013
Ritz-Carlton Lodge,
Reynolds Plantation
Greater Atlanta

CH100 is the annual gathering of CEOs, Presidents, COOs, CFOs and Clinical Leaders of community-based hospitals and health systems between 50 and 500 beds.

2013 Registration Information
Visit the Registration Website:
www.communityhopsital100.com/register
or contact Miriam Adams at
(203) 644-1734.

Additional CH100 Resources

Education Program

Executive Networking

On-site Recreation

The Ritz-Carlton Lodge

List of Registered Providers

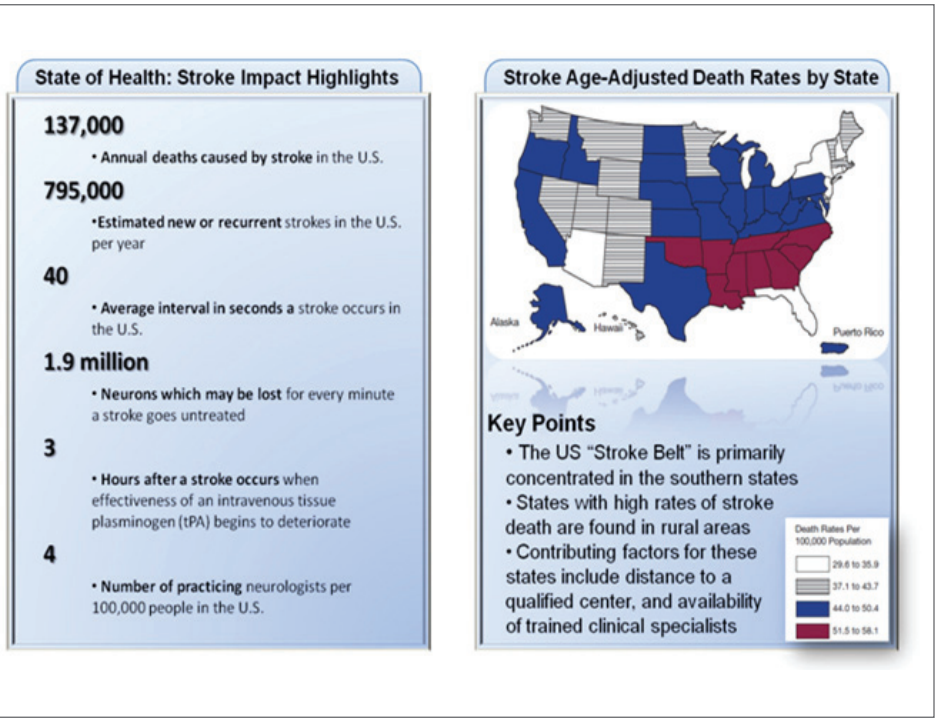
2013 Advisory Board

2013 Spouse Program

Improved Stroke Care thru Hospital Collaborations

The Financial Burden of Stroke on the US Healthcare System

Stroke accounts for more than 135,000 deaths and is the third leading cause of mortality in the United States[1]. With nearly 800,000 strokes occurring annually in the US, the financial burden for patient morbidity rises to more than $73 billion dollars from medical care and therapy coupled with lost productivity costs[2]. When the incidence of stroke cases and those states realizing the highest mortality rates is overlaid on a map of the United States, an inequality is apparent. This infers that improving access to critical neurological assessment and the timely delivery of thrombolytics could dramatically impact these statistics. A shortage of neurologists and geographical limitations across rural America compounds the challenge of improving stroke care.



2014 Conference Dates
MARK YOUR CALENDAR

CH100 Leadership & Strategy Conference
October 19 to 21, 2014
Park Hyatt Aviara, San Diego, CA

The Focus on the Golden Hour

Following the 1996 National Symposium on Rapid Identification and Treatment of Acute Stroke, the American Stroke and Heart Associations launched the "Get With The Guidelines" (GWTG) initiative that focused on improving patient outcomes with stroke[4]. The GWTG and Joint Commission (JC) guidelines have increased awareness of the "Golden Hour"-- the time between when the patient enters the emergency room until the administration of tPA. These two organizations have also stressed the need to expand access to care through the creation of certified centers of excellence[5]. A certified GWTG Emergency Department in the US not only improves mortality and morbidity, but also positively impacts the cost of care for stroke patients. Unfortunately, with only approximately one quarter of the U.S. 4,600 Emergency Departments certified[6], many patients miss out on the "Golden Hour" due to lengthy transport times caused by the ambulance driving past unaccredited sites. Although the "Golden Hour" has proven effective, it is still dependent on accessibility[7].

Telestroke: The Nationwide System

The limitations of patient access and scarcity of neurological resources has led to the evolution of national stroke networks that are comprised of Joint Commission-certified Stroke Centers with smaller, critical access and rural hospitals.

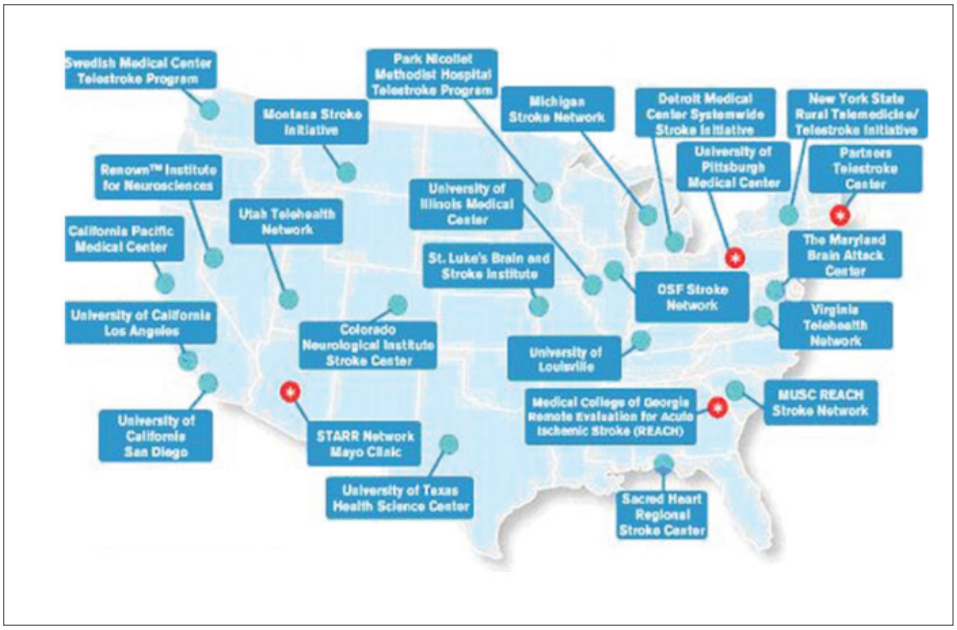
> "Telestroke networks should be deployed wherever a lack of readily available stroke expertise prevents patients in a given community from accessing a primary stroke center (or center of equivalent capability) within a reasonable distance or travel time to permit access to specially trained stroke care providers."
>
> **Source:** http://stroke.ahajournals.org/content/early/2009/05/07/STROKEAHA.109.192361.citation

Four factors are driving the trend toward telestroke networks.

1. *Increased demand for stroke neurologists at the point of care in the ED to limit patient "drive-bys".*
2. *Public reporting of hospital performance metrics which help attract patients and staff.*
3. *Federal grant offerings to enable cost effective deployment of stroke care networks.*
4. *Development of technology that enables a clinically suitable patient experience.*

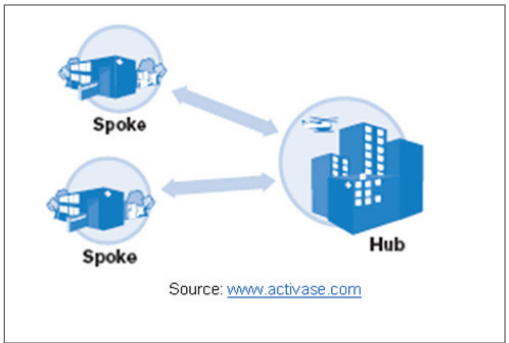
Telestroke: The Nationwide System *continued*

Today, more than 20 organized telestroke networks are recognized by the American Stroke Association and Joint Commission within the United States[8].

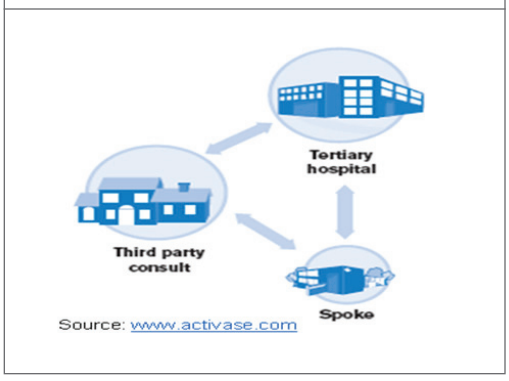


Two primary organizational designs have evolved: a "Hub & Spoke Model" and a "Third Party Consult Model."[9]

Hub & Spoke: The Hub serves as the JC-certified stroke center, from which contractual service partnerships are formed to smaller ("spoke") hospitals that do not have on-site specialty providers to offer adequate stroke care



Third Party Consult: Generally in the form of turnkey neurological service providers, "on-call" specialists are contracted to deliver care to Spoke hospitals on an episodic basis when a stroke encounter is identified



Costs and Benefits

The technology and ongoing licensure costs to develop a telestroke network are fairly low. The hardware required for a "spoke" solution costs approximately $25,000 per institution.

An analysis of the value of telestroke can be summarized in three parts:

- More patients can be treated at the local hospitals thru access to remote specialized resources[10]
- There is an increase in the timely administration of tPA (within the "Golden Hour") which reduces mortality and morbidity[11]
- Improved clinical outcomes reduces short- and long-term financial burdens on the health system and on ischemic stroke patients[12]

Conclusions

If one lives in a rural community or where there is a shortage of stroke neurologists, there is a significant likelihood today that this will impede access to timely evaluation and treatment of an ischemic stroke. The deployment of inexpensive technology to counter the shortfall in access and resources can equalize the disparity across the United States, thereby not only improving stroke care, but also reducing the financial burden on the US health system. Appropriate technology adoption can support Medicare initiatives to improve access to care, reduce cost and improve clinical outcomes. ■

Footnotes

1. "Deaths and Mortality", Centers for Disease Control and Prevention, accessed September 4, 2013. http://www.cdc.gov/nchs/fastats/deaths.htm
2. "People with Atrial Fibrillation are 5 times more at risk for Stroke", American Heart Association, accessed September 4, 2013. http://www.heart.org
3. "NINDS: Stroke Proceedings: Lynden Keynote" National Institute of Neurological Disorders and Stroke, accessed September 4, 2013. http://www.ninds.nih.gov/news_and_events/proceedings/stroke_proceedings/lydenkey.htm
4. 1432, Stroke, July 2010
5. "The "Golden Hour" and Acute Brain Ischemia, Presenting Features and Lytic Therapy in >30 000 Patients Arriving Within 60 Minutes of Stroke Onset", Stroke, Journal of the American Heart Association, accessed September 4, 2013. http://stroke.ahajournals.org/content/41/7/1431.full.pdf
6. "Need the Emergency Room? Skip the wait", Health, accessed September 4, 2013. http://health.usnews.com/health-news/articles/2008/09/17/need-the-emergency-room-skip-the-wait
7. "The "Golden Hour" and Acute Brain Ischemia, Presenting Features and Lytic Therapy in >30 000 Patients Arriving Within 60 Minutes of Stroke Onset", Stroke, Journal of the American Heart Association, accessed September 4, 2013. http://stroke.ahajournals.org/content/41/7/1431.full.pdf
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