



Novant Health Teleneurology: The Regional Adjustment. (3.0)

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Making healthcare remarkable



Financial Disclosures:

Specialists On Call, Inc. (formerly known as Brain Saving Technologies, Inc.) -
Telemedicine (Privately Held) 2003-2010.

Telephysicians, P.C.'s - Physician Services (Privately Held) 2005-2010.

Neurologica, Inc. - Portable Imaging (Acquired Samsung, America 2013) 2004-
2010.



Intravenous Thrombolysis

The National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group
(1995) Tissue plasminogen activator for acute ischemic stroke. *NEJM* 333: 1581-7.



Acute Ischemic Stroke 1997



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Dr. C. Miller Fisher, The Massachusetts General Hospital 1997



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The MGH Medical Station 1967 (Telemedicine 1.0)



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Dr. Kenneth Byrd, The MGH 1967



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The MGH Telestroke 2005 (2.0)

- Academic.
- IV TPA delivery service.
- Fellow driven.
- Hospital based.
- Technology lite.
- Branded.
- Scalability challenged.

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Dr. Lee Schwamm, MGH 2000



Dr. Lee Schwamm evaluates a patient at a remote hospital who is having a stroke to decide whether or not a clot-busting medication called tPA should be administered.

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SOC Teleneurology 2005 (2.0)

- Entrepreneurial.
- Emergency Neurology service.
- Attending driven.
- Provider based.
- Technology heavy.
- Unbranded.
- Scalability less challenged.



Novant Neurosciences Telemedicine Network

Current participants:

- 1 Ashe Memorial Hospital, Jefferson, NC
- 2 Davis Regional Medical Center, Statesville, NC
- 3 Hugh Chatham Memorial Hospital, Ulen, NC
- 4 Morehead Memorial Hospital, Eden, NC
- 5 Northern Hospital of Surry County, Mount Airy, NC
- 6 Novant Health Brunswick Medical Center, Bolivia, NC
- 7 Novant Health Clemmons Medical Center, Clemmons, NC
- 8 Novant Health Haymarket Medical Center, Haymarket, VA
- 9 Novant Health Kernersville Medical Center, Kernersville, NC
- 10 Novant Health Prince William Medical Center, Manassas, VA
- 11 Novant Health Roanoke Medical Center, Salem, NC
- 12 Novant Health Thomasville Medical Center, Thomasville, NC
- 13 Pioneer Medical Center of King, King, NC
- 14 Pioneer Community Hospital of Patrick, Stuart, VA
- 15 Twin County Regional Hospital, Galax, VA

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Novant Health Forsyth Medical Center Milestones

- 2002 Interdisciplinary Neuroscience Team formed
- 2004 First JC Primary Stroke Center in North Carolina
- 2009 AHA Gold Plus Recipient
- 2009 Initiated Teleneurology Services (SOC, Inc.)
- 2011 AHA Target Stroke Recipient
- 2013 First JC Comprehensive Stroke Center in our market
- 2014 AHA Target Stroke Honor Roll Elite Plus Recipient
- 2017 Internalized Teleneurology Services



American Heart Association
American Stroke Association
CERTIFICATION
Meets standards for
Comprehensive Stroke Center



NH Teleneurology 2017 (3.0)

Community based.

Emergency Neurology Service.

Attending driven.

System based (Regional).

Technology heavy.

Branded.

Scalability confident.



NH Teleneurology Providers

Novant Health Inpatient Neurosciences (Winston Salem)

Blue Sky Neurology (Denver)

UVA Neurology (Charlottesville)



NH Teleneurology Philosophy

“Call for patients that you know are having a neurological emergency. Call for patients that you worry might be having a neurological emergency. Last known well?”

“Every patient with a neurological emergency has a neurological problem. Not every patient with a neurological problem has a neurological emergency.”

“Prioritize Non Contrast Head CT.”



NH Teleneurology Components (3.0)

- 1. Case Coordination (Care Connections).
- 2. Consistent Patient Experience (Neuro hospitalists Plus).
- 3. Consistent Provider Experience (EPIC).
- 4. Documentation Redundancy (Reach Health).



McDonald's Rules

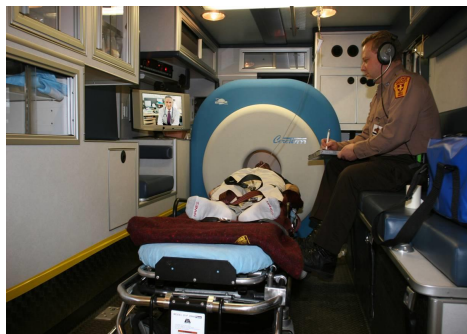
“If a hospital needs help to administer acute stroke therapies, it probably also needs advice and assistance for other neurological emergencies.”

“TIA is a *threatened stroke* and should be viewed as a neurological emergency.”

“It is easier to prevent the next stroke than it is to treat the present stroke.”



The Potential of Emergency Neurology 2006



The Reality of Acute Stroke 2014



Acute Stroke

“Despite advances in imaging, vascular intervention, and video medicine, for the foreseeable future, Acute Stroke will remain a disease that is far easier to prevent (after the fact) than it is to treat in the moment.”

Dr. Colin Timothy McDonald
(National Stroke Association, 2005)