UVA Telestroke

Timely delivery of the most effective stroke treatments is essential. When caring for a stroke patient, time saved is brain saved: 1.9 million neurons die during each minute a stroke goes untreated, according to the American Stroke Association.

The award-winning UVA Stroke Team partners with community hospitals throughout the region to provide extensive care for stroke patients — 24 hours a day, seven days a week. Using telehealth technology, our specialists support community healthcare providers on the front lines of stroke care.

The result of this partnership is better access to treatment with improved patient outcomes, and fewer stroke-related fatalities and disabilities. In 2015, we provided more than 350 consultations through our Telestroke and phone support systems.

- UVA Health System is designated as a Primary Stroke Center by the American Heart Association (AHA) and American Stroke Association (ASA), a distinction we've carried since 2007.
- UVA received two awards from the AHA and ASA in 2016: Get With The Guidelines®-Stroke Gold Plus Achievement Award and Target: Stroke Honor Roll-Elite, indicating that patients at UVA receive care that meets the latest care guidelines.

Specialized Stroke Support

A partnership with the UVA Telestroke program provides community hospitals and patients with enhanced patient care and improved economics through advanced emergency department and inpatient neurological support.

Our experienced Telestroke team supports community hospitals through:

- Providing urgent medical assessments to determine the likelihood and severity of a stroke and the best course of treatment, with access to evidence-based treatments, including IV thrombolytics and innovative clot retrieval procedures
- Facilitating bed transfers to the UVA Neuro ICU and Stroke Unit for acute stroke patients when needed and providing ongoing neurologic consultation when transfer is not necessary
- Communicating directly with the patient and their family once the patient is stabilized: explaining the clinical evaluation, treatment options and prognosis and allowing ample time to answer questions and address concerns, reducing the burden on the community hospital staff
- Emergent consultations for all neurological subspecialties
- Providing specialized online and on-site training to help providers and their patients quickly recognize the signs and symptoms of stroke, saving valuable time

UNIVERSITY of VIRGINIA HEALTH SYSTEM | Neurosciences and Behavioral Health Center

iTREAT: Mobile telestroke care using low-cost, off-the-shelf technology, targeting rural EMS settings; a phase II safety and feasibility trial (IRB-HSR 17744)

Stroke is a time-sensitive emergency that requires rapid access to neurological expertise and neuroimaging, which are limited in rural and underserved areas. Access to this expertise and technology during prehospital assessment — at the patient's home and en route to the hospital — are key to further improving the timely diagnosis and treatment of acute stroke.

Researchers and physicians at UVA have developed a new tool for this prehospital assessment: Improving Treatment with Rapid Evaluation of Acute stroke via mobile Telemedicine (iTREAT), which harnesses mobile technology like the Apple iPad®, Cisco Jabber (Movi)™ video conferencing application (HIPAA compliant) and 4G LTE CradlePoint© modem, among other technologies, to outfit EMS vehicles with tools that allow telestroke care from the beginning of patient contact. The study aims to:

- Allow mobile videoconferencing between a stroke physician, patient and transporting EMS
- Improve accuracy of prehospital stroke diagnosis
- Facilitate appropriate patient triage
- Enhance capability of prehospital stroke management

Endovascular Therapy:
Blood clot removal during stroke

In a minimally invasive procedure, called a thrombectomy, UVA interventional neuroradiologists and endovascular neurosurgeons remove the blood clot causing a stroke, ending the stroke as soon as possible.

- UVA participated in the initial IMS-3 clinical trial for this technique.
- UVA has a long history of leading-edge stroke research, participating in PROACT, a phase II randomized trial of recombinant pro-urokinase by direct arterial delivery in acute middle cerebral artery stroke. This trial, which took place in the 1990s under the leadership of site principal investigator Mary (Lee) Jensen, MD, was the first and only randomized trial for more than a decade to illustrate the benefit of intra-arterial therapy for stroke.
- Karen Johnston, MD, chair of UVA Department of Neurology, co-authored the 2015 American Heart Association/American Stroke Association Guideline for endovascular stroke therapy.

Building on 20 years of experience in the use of advanced technologies and broadband communications, the UVA Center for Telehealth works to facilitate access to specialty medical care and support the mission of UVA Health System to advance clinical service, teaching, research and public service.

Our Stroke Team

Our Stroke Team is available around the clock to meet the needs of our partner hospitals. This team includes physicians who are board-certified in vascular neurology, endovascular neurosurgeons, interventional neuroradiologists, neurocritical neurologists and neuro-specific trained nurses.

Nicole Chiota-McCollum, MD
Vascular and General Neurology

Avery Evans, MD
Interventional Neuroradiology

Mary (Lee) Jensen, MD
Interventional Neuroradiology

Karen Johnston, MD, MSc
Vascular and General Neurology

Kenneth Liu, MD
Vascular Neurological Surgery

David McCollum, MD
Inpatient Neurology

Barnett Nathan, MD
Critical Care Neurology

Javier Provencio, MD
Critical Care Neurology

Andrew Schomer, MD
Critical Care Neurology

Nina Solenski, MD
Vascular and General Neurology

Andrew Southerland, MD, MSc
Vascular and General Neurology

Bradford Worrall, MD
Vascular and General Neurology

Dennis Vollmer, MD
Vascular and General Neurological Surgery

Learn more about the UVA Neurosciences and Behavioral Health Center:
neurosciences.uvahealth.com

A single call to UVA Transfer Center expedites transfers and acute neurological consultations:

Refer a patient: **800.552.3723**

Transfer a patient: **844.XFERUVA (933.7882)**