

# Research and Operational Partnerships to Improve VHA Acute Ischemic Stroke Care

Stroke QUERI

April 2012

In 2009, the structure and quality of VHA acute stroke care was evaluated through the Office of Quality and Performance/Stroke-QUERI Acute Stroke Care Special Project and the VHA Emergency Department and Urgent Care Clinic Stroke Survey. Key findings from the OQP Stroke Special Study included the finding that early stroke care indicators, compared to indicators that measured later hospital care or processes at discharge, had great room for improvement. Specifically, national mean passing rates were lower than desired for measures of NIH Stroke Scale completion (28%), dysphagia screening prior to oral intake (23%), and tPA (tissue Plasminogen Activator, clotting agent) given to eligible patients (8%).<sup>1</sup> Taking all three early indicators together in a composite score (number of passes/number of opportunities), passing rates for early indicators of high-quality stroke care (25%) were lower than in-hospital indicators (87%) and discharge indicators (73%). Further analysis showed that equipped VA Emergency Departments did not have significantly higher quality of thrombolysis compared to non-equipped EDs.<sup>2</sup>

organize and deliver appropriate AIS care by June 1, 2012.

## “Time is Brain” Virtual Training Series

In support of the AIS Directive, the Stroke Taskforce developed and conducted the “Time is Brain” 8-hour Virtual Training Series, conducting four training sessions in November and December 2011 to all VA facilities nationwide. Sessions were developed and led by many Stroke-QUERI investigators including Drs. Williams, Bravata, Graham, Daggett, Kent, and Anderson. Topics included the ASA/AHA guidelines for acute stroke care, an overview of the AIS Directive requirements, organizing a stroke team, using templates and reminders to improve and document stroke care, stroke toolkits and improvement resources (including the Stroke QUERI toolkit and Stroke Quality Improvement Group), patient and staff educational materials, and a demonstration of the planned integration of VA EDIS software and the Stroke Quality Improvement Decision Support Software (developed by Drs. Kent, Anderson, and Williams; SDP 06-004).

## VHA Acute Ischemic Stroke Directive

In response to these findings, Dr. Gary Tyndall, the National VHA ED Director, organized the VHA Acute Stroke Taskforce to guide the development of a national VHA Acute Ischemic Stroke (AIS) Directive. Partnering with Stroke-QUERI investigators, as well as representatives from VA Neurology, ED, Nursing, Speech Language Pathology, and other groups, the Taskforce developed the AIS Directive with the primary aim of improving access to and quality of acute stroke care. The AIS Directive organized recommendations around facility requirements, consent for thrombolysis, templates and clinical pathways to promote high quality care, and Veteran and staff education.

In November 2011, the “Treatment of Acute Ischemic Stroke (AIS), VHA Directive 2011-038” was released

across VHA. The Directive instructs all VAMCs with inpatient acute care to designate their ability to provide thrombolysis for AIS. Each VAMC will be designated as a VHA Primary Stroke Center, VHA Limited Hours Stroke Facility, or a VHA Supporting Stroke Facility based on necessary personnel, infrastructure, expertise, and programs to diagnose/treat Veterans with AIS. Facilities not able to provide AIS care must have a formal policy for rapid transfer of Veterans to a facility with this capability. The Directive also requires the measurement of three inpatient stroke quality indicators by all VAMCs with inpatient acute care beds:

- Completion of the NIH Stroke Scale,
- Dysphagia screen prior to oral intake, and
- Provision of thrombolysis to eligible patients.
- All facilities are required to develop and implement their policy to

## Ongoing Research to Promote Optimal National Stroke Care

Ongoing research planned to continue to promote national stroke care improvement and assess the impact of the National AIS Directive include a multi-site randomized trial to improve dysphagia screening and DVT

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prophylaxis, as well as a qualitative assessment of facility organizational responses to the AIS Directive. Stroke-QUERI looks forward to continuing work with its partners in Neurology, Emergency Medicine, and Specialty Care, as they seek to improve inpatient care for Veterans with acute ischemic stroke.

For more information, the new VHA AIS Directive and “Time is Brain” materials are available at (VA Intranet only):

[vaww.infoshare.va.gov/sites/MedicalSurgical/strokecare/](http://vaww.infoshare.va.gov/sites/MedicalSurgical/strokecare/)

[Shared%20Documents/Forms/AllItems.aspx](#)

1. Arling G, Reeves M, Ross J, et al. Estimating and reporting on the quality of inpatient stroke care by Veterans Health Administration Medical Centers. *Circ Cardiovasc Qual Outcomes* 2012;5(1):44-51.
2. Keyhani S, Arling G, Williams L, et al. The use and misuse of thrombolytic therapy within the Veterans Health Administration. *Medical Care* 2012;50(1):66-73.

## How Do I Learn More?

To learn more about this directive, please contact:

**Jennifer Myers, M.S.W.**

E-mail: [Jennifer.Myers@va.gov](mailto:Jennifer.Myers@va.gov)

## Web Resources

For more information about the QUERI program in general, and to link to all of the individual QUERI Centers, please go to

**[www.queri.research.va.gov](http://www.queri.research.va.gov)**

## The Stroke-QUERI Executive Committee

Each QUERI Executive Committee is led by a research expert and a clinician. The Research Coordinator for Stroke-QUERI is **Linda Williams, M.D.**; the Clinical Coordinator is **Dawn Bravata, M.D.**, the Co-Clinical Coordinator is **Glenn Graham, M.D.**, and the Implementation Research Coordinator is **Teresa Damush, Ph.D.** The membership of the Stroke-QUERI Executive Committee includes: **Barbara Vickrey, M.D., M.P.H. (Chair)**; Pamela Duncan, Ph.D.; Thomas Kent, M.D.; Sarah Krein, Ph.D., R.N.; David Matchar, M.D.; Brian Mittman, Ph.D.; Don and Jan Prether; Mathew Reeves, Ph.D.; and Robert Ruff, M.D.