Developing a VA Network for Acute Stroke Care

VA Acute Stroke Care

VA is in the process of developing a comprehensive system to provide contemporary, approved acute stroke care to all eligible Veterans. At present, relatively few VA facilities have administered intravenous thrombolytic therapy for stroke, an issue which is addressed in a recent stroke Directive. Each VA is to be designated as one of three levels of stroke-capable hospitals, and to develop a plan to use community resources where VA capacity is absent. Due to the short window for thrombolytic therapy after stroke, travel time to the nearest VA hospital is critical. To evaluate the adequacy of the VA healthcare system for acute stroke care, this project uses geo-tagged data for enrolled Veterans and Veterans at high risk for acute stroke (due to a history of prior stroke) to examine access to acute stroke care within the network of VA hospitals.

Travel Time Maps and Statistics

The map below illustrates the catchment area of every VA facility by ground travel time from 15 to 60 minutes in 15-minute increments for all Veterans with a history of stroke diagnosis as of fiscal year 2008. All told, about 70% of these Veterans can reach their nearest VA within 60 minutes. However, access varies considerably from one region to another.
Maps and statistics have been computed for each of VA's 21 Veterans Integrated Service Networks (VISNs). The bar graph below shows the percentage of Veterans with a history of stroke (red bars) and all enrolled Veterans (blue bars) within 60 minutes of any VA facility by VISN number. As the graph illustrates, access statistics vary from a high of around 90% in VISN 3 (VA NY/NJ Veterans Healthcare Network) to a low of around 40% in VISN 23 (VA Midwest Health Care Network).

Since it is unlikely that every VA facility will meet the requirements to be a top-level VA Stroke Center, Stroke-QUERI has performed national and regional analyses including only a subset of VA Medical Centers in the stroke network, based on their facility complexity level. For example, if only the largest VA hospitals (Complexity Level 1a) are acute-stroke capable, 60 minute access decreases to 34%. Additional analyses are currently being performed incorporating non-VA Joint Commission-designated Primary Stroke Centers to explore how use of non-VA facilities may improve Veteran access to acute stroke services.

**Impact on Clinical Care**

The above data are available to VA Medical Center, VISN, and national administration and leadership to inform the development of a national stroke plan that will best meet the needs of the nation's Veterans. Coupled with data from another Stroke-QUERI project that is determining the costs associated with provision of stroke center services across the VA healthcare system, this work will also assist decisions to either augment VA stroke services or enlist community resources on a facility-by-facility basis.

**How Do I Learn More?**

If you are interested in learning more about this project, please contact:

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**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 Center is led by a research expert and a clinician. The research expert and Director 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., Ph.D.**, and the Implementation Research Coordinator is **Teresa Damush, Ph.D.** The membership of the Stroke-QUERI Executive Committee is: **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.