

Special points of interest:

- 150,000 people die from strokes each year in the US.
- The most recent endovascular acute stroke series show that cerebral vessels can be recanalized 60-70% of the time.
- Rush Stroke Program recently received the American Stroke Association's Get With The GuidelinesSM—Stroke (GWTG—Stroke) Gold Performance Achievement Award

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The Role of Emergency Endovascular Stroke Therapy

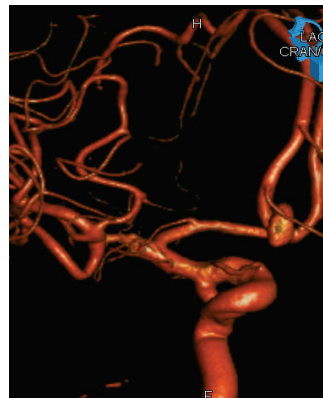


Michael Chen, MD

800,000 people have strokes each year in the US, costing over \$65 billion a year to an already overspent US health care system. 150,000 people die from strokes each year in the US. Stroke affects three times as many woman as breast cancer but receives far less attention in the media. Patients with the most disabling strokes account for the majority of this financial burden. It therefore makes sense that treatment approaches should be focused first and foremost on reducing disability in this subgroup of severely affected strokes.

Large vessel occlusions, which include the internal carotid artery, the first branch of the middle cerebral artery (M1), and the basilar artery, have been shown to be independent predictors of poor functional outcome. The larger the vessel affected, the greater the volume of brain that can be irreversibly damaged.

Any stroke occurring within the first 12 hours should be considered for emergency therapy to reopen the cerebral vessel. The earlier this therapy can be administered, the better the chance for an effective and safer outcome. Intravenous thrombolysis is the only FDA approved treatment for acute ischemic stroke, and should always be considered in the patient with a stroke within the first



4 ½ hours. The next question then deals with whether or not there is clinical or radiographic evidence for a large vessel occlusion. If there is, then careful thought must be given to whether the patient would benefit from attempts to open the vessel endovascularly. Certain imaging tests such as computed tomography or magnetic resonance imaging can be used to better select

such patients.

The most recent endovascular acute stroke series show that cerebral vessels can be recanalized 60-70% of the time. My own personal series shows a similar rate of recanalization. What is obviously more important though, is how many patients are functionally independent after their stroke. Most series that include all large vessel occlusions show that up to 30% of treated patients have good functional outcome measured as a modified Rankin of 2 or less at 90 days. Historical controls show that only around 15% of untreated patients with large vessel occlusions have a favorable functional outcome.

With improved patient selection, continued research on stroke pathophysiology, and familiarity with the technical aspects of the procedure and device improvement, our results should continue to improve. Our overriding goal is to give our patients with the most severe strokes, a real opportunity to become functionally independent again. Opening up occluded large cerebral arteries is just the beginning

Gold Performance Achievement Award

Stroke Program at Rush receives American Stroke Association's Get With The Guidelines Gold Performance Achievement Award



CHICAGO 2009-- The Stroke Program at Rush recently received the American Stroke Association's Get With The GuidelinesSM–Stroke (GWTG–Stroke) Gold Performance Achievement Award. The award recognizes the Stroke Program's commitment and success in implementing a higher standard of stroke care by ensuring that stroke patients receive treatment for at least 24 months according to nationally accepted standards and recommendations.

"With a stroke, time lost is brain lost. As health care providers, we strive to meet the highest standards and mobilize treatments as fast as possible for each stroke patient. The GWTG–Stroke Gold Performance Achievement Award is validation that we are meeting these high standards," said Shyam Prabhakaran, MD, MS. The Stroke Program has developed a comprehensive system for rapid diagnosis and treatment of stroke patients admitted to the emergency department. This includes always being equipped to provide brain imaging scans, having neurologists available to conduct patient evaluations and using clot-busting medications when appropriate.

To receive the GWTG–Stroke Gold Performance Achievement Award, the Stroke Program demonstrated 85% adherence in the GWTG–Stroke key measures for 24 or more consecutive months. These include aggressive use of medications like tPA, antithrombotics, anticoagulation therapy, DVT prophylaxis, cholesterol-reducing drugs, and smoking cessation.

"The American Stroke Association commends the Stroke Program at Rush for its success in implementing standards of care and protocols," said Lee H. Schwamm, M.D., national Get With The Guidelines Steering Committee Member and director of the acute stroke services at Massachusetts General Hospital in Boston. "The full implementation of acute care and secondary prevention recommendations and guidelines is a critical step in saving the lives and improving outcomes of stroke patients."

GWTG–Stroke uses the "teachable moment," the time soon after a patient has had a stroke, when they are most likely to listen to and follow their healthcare professionals' guidance. Studies demonstrate that patients who are taught how to manage their risk factors while still in the hospital reduce their risk of a second heart attack or stroke. Through GWTG–Stroke, customized patient education materials are made available at the point of discharge, based on patients' individual risk profiles. The take-away materials are written in an easy-to-understand format and are available in English and Spanish. In addition, the GWTG Patient Management Tool provides access to up-to-date cardiovascular and stroke science at the point of care.

"The time is right for Rush to be focused on improving the quality of stroke care by implementing GWTG–Stroke. The number of acute ischemic stroke patients eligible for treatment is expected to grow over the next decade due to increasing stroke incidence and a large aging population," said Laura Vaught, RN.

According to the American Stroke Association, each year approximately 700,000 people suffer a stroke — 500,000 are first attacks and 200,000 are recurrent. Of stroke survivors, 21 percent of men and 24 percent of women die within a year, and for those aged 65 and older, the percentage is even higher.

Meet our Clinical Staff



From Left: Lindsay Goldstein-Smith, Laura Vaught, Yulonda Lundy; Bottom: Olga Borisovsky

Olga Borisovsky, Ph. D., PA-C is a physician assistant working with the Stroke Program at Rush University Medical Center. She received her medical education and experience in Medicine and Neurology at the Saratov State Medical University, Russia, where she earned her Ph.D. in Clinical Neurology. Olga joined the Comprehensive Stroke Program soon after graduating from Malcolm X College with honors in 2008. She works in collaboration with the physicians in the inpatient practice of the Cerebrovascular Disease Section and with the neurology residents, providing primary care to patients on the inpatient Stroke service.

Lindsay Goldstein-Smith, MSN, APN, ACNP-BC is an acute care nurse practitioner working with the neuro-endovascular service at Rush University Medical Center. She received her Bachelors of Science in nursing with honors from the University of Iowa and her Masters of Science in nursing from Rush University in 2007. Lindsay worked as a clinical nurse in cardiothoracic surgery, trauma, and neuroscience intensive care units prior to her current role. As a nurse practitioner Lindsay coordinates care for individuals undergoing evaluation and treatment of complex neurovascular conditions in both inpatient and outpatient settings.

Yulonda Lundy, BSN, RN is the coordinator for stroke education here at Rush University Medical Center where she provides stroke education, maintains stroke performance measures and data. She also facilitates outreach and support groups for stroke survivors, caregivers and families affected by strokes. Yulonda received an associate's degree in Elementary education from Kennedy King College in Chicago, Illinois. She earned a Bachelors degree in nursing from Chicago State University. Yulonda has several years experience in intensive care and is ACLS certified.

Laura Vaught, BSN, RN is the Stroke program's coordinator who works on quality projects and maintaining Joint Commission compliance. Laura came to Rush in 1987 after receiving her Bachelors degree in nursing from Loyola University of Chicago. Laura has worked in the Bone Marrow Transplant unit, The Emergency room and Medical Intensive Care Unit. She became a Clinical Nurse Coordinator in the MICU working on quality and safety initiatives. Laura moved into the Quality Improvement department and worked on projects revolving around patient safety and satisfaction. Laura has been the recipient of several awards, from Hero of the Heart to Magnet Nurse for Quality.

Meet our Newest Member



Jennifer Johansen, APN, is a nurse practitioner working with the Neurology Intensivists at Rush University Medical Center. She received her Bachelors in Nursing from Loyola University in 1999 and began working at Northwestern Memorial Hospital on a general medicine floor. In 2001, she started in the Neuro/Spine intensive care unit and received her Masters in Nursing from Loyola University in 2008. She works in collaboration with the Neurology Intensivists, residents, pharmacists and nurses in the Neuroscience intensive care unit providing primary care to the ICU patients.

**We're on
the Web!**

www.rush.edu/stroke



**If you have a question,
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 RUSH UNIVERSITY
MEDICAL CENTER

IT'S HOW MEDICINE
SHOULD BE

Upcoming Events

Prevention and Treatment of Stroke

Tuesday, Nov. 17

Armour Academic Center

Screenings begin at 5

Room 994, 600 S. Paulina St.

Talks from 6 to 8 p.m.

Could you be at risk for stroke? Each year more than 700,000 Americans have a stroke. You can lower your risk of death or disability from stroke by knowing the warning signs and controlling the risk factors. Endovascular and stroke neurologists at Rush will educate you on stroke and nurses will provide a personal screening. Screenings will begin at 5 p.m. and will be first come, first served.

Life After Stroke

Join us for a bilingual group offering support and information for survivors, caregivers, and people affected by stroke. Learn effective strategies for coping with the changes that occur after stroke.

WHEN: First Wednesday of each month from 6 to 7pm

WHERE: 710 S. Paulina, Suite 438, Chicago IL (Anne Byron Waud Resource Center)

To register, please call 1.800.757.0202

Can't make it on Wednesdays... We have another class available

WHEN: Second Tuesday of each month from 1-2pm

WHERE: Rush University Medical Center, 3rd Floor Kellogg, waiting area
1725 W. Harrison Street

Light refreshments and parking provided.



Earning the "Gold Seal of Approval," the Rush Stroke Program has been certified by the Joint Commission as a primary stroke center. This certification recognizes hospitals that make exceptional efforts to foster better outcomes for stroke care. Rush specialists in stroke, other cerebrovascular conditions and neurological critical care provide care for people with cerebrovascular dis-

PLEASE NOTE: All physicians featured in this publication are on the medical staff of Rush University Medical Center. Some of the physicians are in private practice and, as independent practitioners, are not employees or agents of Rush University Medical Center.

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