STROKE

Awareness and Education Toolkit

For Healthcare Providers

Healthcare Provider Toolkit

Alabama ▪ Arkansas ▪ Louisiana ▪ Mississippi ▪ Tennessee

A toolkit to increase professional awareness and knowledge of stroke, including risk factors, signs and symptoms, triage care, protocols for treatment, rehabilitation options, and patient quality of care issues.

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INTRODUCTION

The Delta States Stroke Network (DSSN) is a partnership of southeastern states in the Delta region, including, Alabama, Arkansas, Louisiana, Mississippi, and Tennessee - five of the eight states comprising the "stroke belt," where the stroke death rate is 1.5 times the national average. Coordinated by the Arkansas Department of Health (ADH) and funded by the Centers for Disease Control (CDC), the purpose of the DSSN is to increase stroke awareness and enhance the impact of public health in addressing stroke prevention and quality of care. DSSN members include public health and medical professionals, policy makers, and community health advocates. The Network increases health collaboration across state boundaries and leverages efforts within the region to encourage stroke-related partnerships, education, training, and policy systems-change strategies.

The Stroke Awareness and Education Toolkit for Healthcare Providers was created to increase professional education about stroke, including statistics/incidence, risk factors, signs and symptoms, triage information, protocols for treatment, rehabilitation options, and patient quality of care issues.

This toolkit was developed by the DSSN Training and Education Workgroup under the leadership of Jackie Moreland, Chair. Members of the workgroup included Augusta Brown, Pam Brown, Martina Campbell, Mike Guillot, Dr. Becky Hall, Alvin Harrion, Lanitra Harris, Dr. Virginia Howard, Xavier Johnson, Jane Jumbelick, Joe Phillips, Melanie Rightmyer, Teresa Romano, Debra Smith, Heather Sudduth, and Monique Wilson. Barbara Pauly, DSSN Project Manager, provided staff support. Scientific review of the toolkit was provided by DSSN Project Director, Namvar Zohoori, MD, PhD, MPH.

Special thanks to the Minnesota Stroke Partnership for sharing their excellent community Stroke Awareness and Education Resource Toolkit, to provide a physical template from which the DSSN was able to build the Stroke Awareness and Education Toolkit for Healthcare Providers. We are excited about this partnership, as we work together across state lines to reduce the burden of stroke.

The Stroke Awareness and Education Toolkit for Healthcare Providers is available for free download on the Delta State Stroke Network's website at **www.deltastatesstroke.net**. A limited number of copies of the toolkit on CD are available thru the State Health Department's Heart Disease and Stroke Prevention Programs in Alabama, Arkansas, Louisiana, Mississippi, and Tennessee. Click **HERE** for a list of contact information.

Web site resources are provided solely as a service to our readers. Provision of an address does not constitute an endorsement of this organization by the Delta States Stroke Network, its members, or partners; and none should be inferred. DSSN is not responsible for the content of other organizations' web pages.

Using the Toolkit

This toolkit was designed to be used as an electronic resource. Links are denoted by blue text and an underline. To access the majority of the resources requires a computer with an internet connection. In these cases, the resource is listed with the internet address written next to the hyperlink. To access any of these electronic links, simply click on the blue underlined text to be taken to the appropriate location, either within the document or on the web. The toolkit can also be printed, but in order to view the electronic resources, the user would require a computer with access to the internet.

Glossaries

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area

http://www.strokecenter.org/education/glossary.html.

The Internet Stroke Center is a non-profit, educational service of the Stroke Center at Barnes-Jewish Hospital, Washington University Medical Center and the Cerebrovascular Diseases Section of the Department of Neurology at Washington University School of Medicine in St. Louis.

This section of the Professional and Students Area of the website includes a glossary of neurological terms and disorders.

NATIONAL LIBRARY OF MEDICINE

MedlinePlus – Stroke Section

http://www.nlm.nih.gov/medlineplus/stroke.html.

MedlinePlus directs you to information to help answer health questions. MedlinePlus brings together authoritative information from the National Library of Medicine, the National Institutes of Health (NIH), and other government agencies and health-related organizations. MedlinePlus also contains extensive information about drugs and supplements, an illustrated medical encyclopedia, interactive tutorials, the latest health news, and surgery videos.

Brain Function Illustration

Movement   Sensation   Hearing

Thought
Reasoning
Behavior
Memory

Parietal Lobe

Right Side: Abstract Concepts
Left Side: Speech, motor, and
sensory functions

Frontal Lobe

Occipital Lobe

Smell

Vision

Temporal Lobe

Behavior
Memory
Hearing & vision pathways
Emotion
Language

Cerebellum

Brainstem

Balance
Coordination
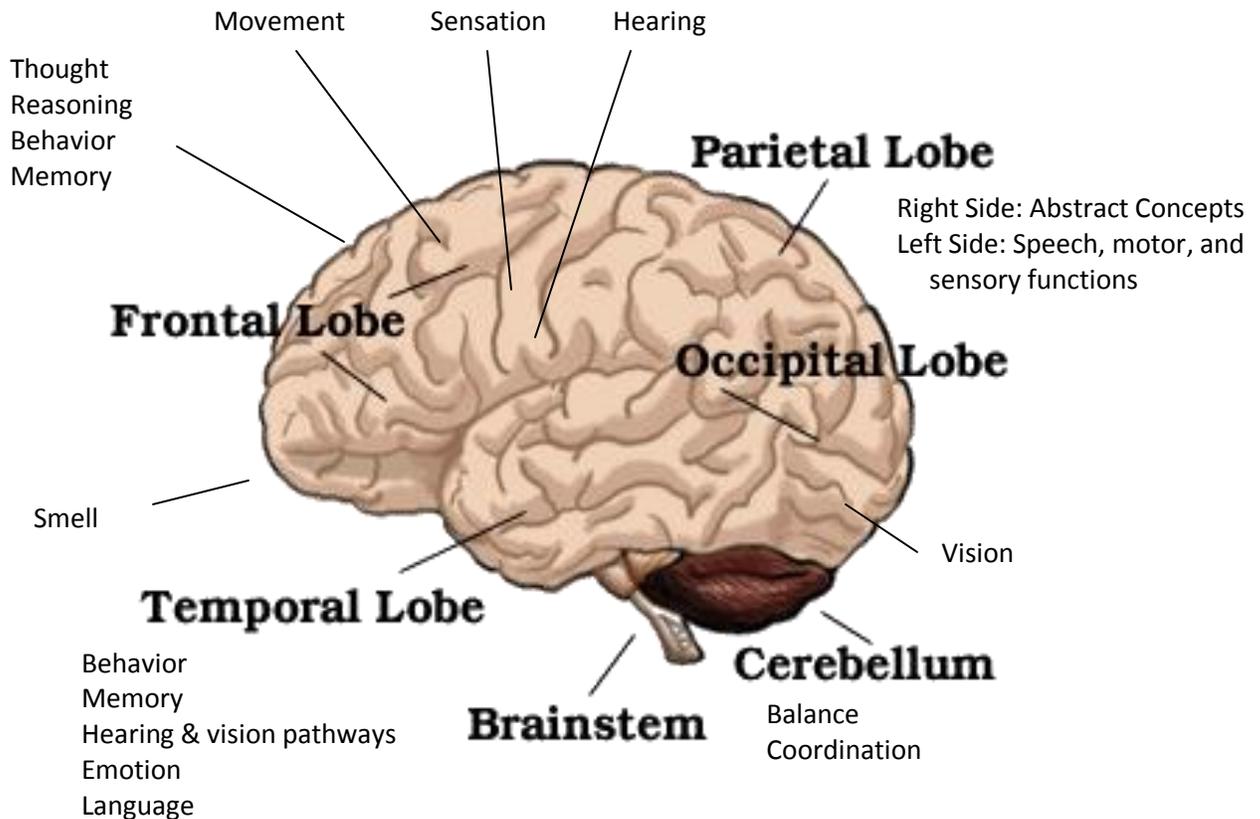
In general, the right and left sides of your brain control different parts of your body and different functions.

The **LEFT** side of the brain controls:	The **RIGHT** side of the brain controls:
Right side of body	Left side of the body
Reasoning	Art
Spoken language	Music
Written language	Creativity
Understanding language	Insight
Mathematical skills	Abstract thought, following directions
Scientific calculations	Spatial concepts

STROKE DEFINITION AND OVERVIEW

A stroke is sometimes called a "brain attack." A stroke can injure the brain like a heart attack can injure the heart. A stroke occurs when part of the brain doesn't get the blood it needs because the blood supply to the brain is cut off or a blood vessel bursts. Without oxygen, brain cells begin to die and death or permanent disability can result.
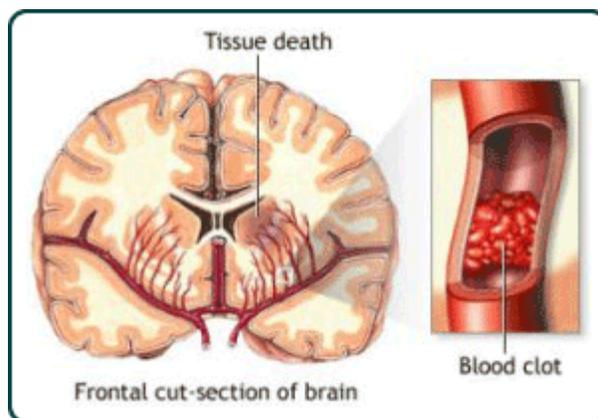
OVERVIEW

There are two types of stroke:

- Ischemic stroke (the most common type) — This type of stroke happens when blood is blocked from getting to the brain. This often happens because the artery is clogged with fatty deposits (atherosclerosis) or a blood clot.

- Hemorrhagic stroke — This type of stroke happens when a blood vessel in the brain bursts, and blood bleeds into the brain. This type of stroke can be caused by an aneurysm — a thin or weak spot in an artery that balloons out and can burst.

Both types of stroke can cause brain cells to die. This may cause a person to lose control of their speech, movement, and memory.

A "mini-stroke", also called a transient ischemic attack or (TIA), happens when, for a short time, less blood than normal gets to the brain. You may have some signs of stroke or you may not notice any signs. A "mini-stroke" lasts from a few minutes up to a day. Many people do not even know they have had a stroke. A "mini-stroke" can be a sign of a full stroke to come.

The impact of a stroke depends on the type of stroke, the area of the brain where the stroke occurs, and the extent of brain injury. A mild stroke can cause little or no brain damage. A major stroke can cause severe brain damage and even death.

A stroke can occur in different parts of the brain. The brain is divided into four main parts: the right hemisphere (or half), the left hemisphere (or half), the cerebellum, and the brain stem.

A stroke in the right half of the brain can cause:

- Problems judging distances — The stroke survivor may misjudge distances and fall or be unable to guide her hands to pick something up.

- Impaired judgment and behavior — The stroke survivor may try to do things that she should not do, such as driving a car.

- Short-term memory loss — The stroke survivor may be able to remember events from 30

years ago, but not what she ate for breakfast that morning.

A stroke in the left half of the brain can cause:

- Speech and language problems — The stroke survivor may have trouble speaking or understanding others.

- Slow and cautious behavior — The stroke survivor may need a lot of help to complete tasks.

- Memory problems — The stroke survivor may not remember what she did ten minutes ago or she may have a hard time learning new things.

A stroke in the cerebellum, or the part of the brain that controls balance and coordination, can cause:

- Abnormal reflexes of the head and upper body

- Balance problems

- Dizziness, nausea (feeling sick to your stomach), and vomiting

Strokes in the brain stem are very harmful because the brain stem controls all our body's functions that we don't have to think about, such as eye movements, breathing, hearing, speech, and swallowing. Since impulses that start in the brain must travel through the brain stem on their way to the arms and legs, patients with a brain stem stroke may also develop paralysis, or not be able to move or feel on one or both sides of the body.

In many cases, a stroke weakens the muscles, making it hard to walk, eat, or dress without help. Some symptoms may improve with time and rehabilitation or therapy.

INTERNET RESOURCES

AETNA INTELIHEALTH

Stroke http://www.intelihealth.com/IH/ihtIH/WSIHW000/9339/10810.html

Aetna InteliHealth is an online health information company, with information including health news and content as well as access to tools and risk assessments. Harvard Medical School is the flagship medical-content partner of InteliHealth and works closely with InteliHealth staff to create new content and to review articles and other content for clinical accuracy and relevance.

This section of the website includes a basic overview of stroke, with links to learn more about specific stroke issues.

CENTERS FOR DISEASE CONTROL

Stroke http://www.cdc.gov/stroke/

The CDC Stroke Website offers basic information about stroke, with downloadable fact sheets.

FEDERAL DRUG ADMINISTRATION

Stroke **http://www.fda.gov/ForConsumers/ByAudience/ForWomen/ucm118564.htm**.

General fact sheet.

Also available in Spanish
http://www.fda.gov/ForConsumers/ByAudience/ForWomen/FreePublications/ucm126268.htm.

NATIONAL INSTITUTES OF HEALTH

CADASIL **http://www.ninds.nih.gov/disorders/cadasil/CADASIL.htm**.

Short Summary of Cerebral Autosomal Dominant Arteriopathy with Sub-cortical Infarcts and Leukoencephalopathy (CADASIL), an inherited form of cerebrovascular disease that occurs when the thickening of blood vessel walls blocks the flow of blood to the brain.

Know Stroke. Know the Signs. Act in Time.
http://www.ninds.nih.gov/disorders/stroke/knowstroke.htm.

Overview of stroke, including eight-minute video featuring experts in the field of stroke discussing the symptoms of stroke and what to do, as well as stories from people who have successfully recovered from a stroke.

https://ice.iqsolutions.com/ninds/profstrokepubs.asp Educational stroke resources for health professionals – not all are free.

https://ice.iqsolutions.com/ninds/strokepubs.asp Free educational stroke resources for the public.

Spinal Cord Infarction
 http://www.ninds.nih.gov/disorders/spinal_infarction/spinal_infarction.htm.

Short Summary of spinal cord infarction, a stroke either within the spinal cord or the arteries that supply it. It is caused by arteriosclerosis or a thickening or closing of the major arteries to the spinal cord.

Stroke **http://www.nia.nih.gov/HealthInformation/Publications/stroke.htm**.

National Institute on Aging overview of stroke.

Also available in Spanish
http://www.nia.nih.gov/Espanol/Publicaciones/FDA/derrame.htm.

Stroke **http://www.ninds.nih.gov/disorders/stroke/stroke.htm**. - Short Summary

Stroke: Hope through Research
http://www.ninds.nih.gov/disorders/stroke/detail_stroke.htm.

Extensive overview of stroke, including a discussion about current stroke research.

Also available in Spanish
http://espanol.ninds.nih.gov/trastornos/accidente_cerebrovascular.htm.

Wallenberg's Syndrome

http://www.ninds.nih.gov/disorders/wallenbergs/wallenbergs.htm.

Short Summary of Wallenberg's syndrome, a neurological condition caused by a stroke in the vertebral or posterior inferior cerebellar artery of the brain stem.

What You Need to Know about Stroke – Overview of stroke basics.

http://www.ninds.nih.gov/disorders/stroke/stroke_needtoknow.htm.

NATIONAL LIBRARY OF MEDICINE

MedlinePlus – Stroke Section

http://www.nlm.nih.gov/medlineplus/stroke.html.

MedlinePlus directs you to information to help answer health questions. MedlinePlus brings together authoritative information from the National Library of Medicine, the National Institutes of Health (NIH), and other government agencies and health-related organizations. MedlinePlus also contains extensive information about drugs and supplements, an illustrated medical encyclopedia, interactive tutorials, the latest health news, and surgery videos.

NATIONAL STROKE ASSOCIATION

Types of Stroke   **http://www.stroke.org/site/PageServer?pagename=TYPE**.

The National Stroke Association (NSA) is a non-profit association and the only national organization in the United States that focuses 100% of its efforts on stroke. NSA achieves its mission to lower the incidence and impact of stroke by developing community outreach programs, calling for continued improvement in the quality of stroke patient care, and educating both healthcare professionals and the general public about stroke.

This section of the NSA website reviews the different types of ischemic and hemorrhagic strokes and includes animated video clips of ischemic and hemorrhagic strokes.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area

http://www.strokecenter.org/prof/basics.htm.

The Internet Stroke Center is a non-profit, educational service of the Stroke Center at Barnes-Jewish Hospital, Washington University Medical Center and the Cerebrovascular Diseases Section of the Department of Neurology at Washington University School of Medicine in St. Louis.

This section of the Professional and Students Area of the website includes basic stroke sciences topics: anatomy, pathology, pathophysiology, and epidemiology.

The Internet Stroke Center: Patients and Families Area

http://www.strokecenter.org/patients/about.htm.

This section of the Patients and Families Area of the website includes fairly extensive illustrated descriptions of the different types of strokes.

STATISTICS – MEASURING THE BURDEN OF STROKE

The purpose of this section is to provide sources for statistical information concerning the occurrence of and mortality associated with stroke, trends and patterns of stroke mortality, prevalence of risk factors associated with stroke, and access to care.

INTERNET RESOURCES

AMERICAN HEART ASSOCIATION

AHA Heart Disease and Stroke Statistics – Updated Annually

http://www.americanheart.org/downloadable/heart/1240250946756LS-1982%20Heart%20and%20Stroke%20Update.042009.pdf

The American Heart Association works with government agencies to derive their annual statistics for cardiovascular diseases, including coronary heart disease, stroke and high blood pressure. This update, published as a supplement to the journal Circulation, also includes data on risk factors, nutrition, quality of care, medical procedures, and economic cost.

CENTERS FOR DISEASE CONTROL AND PREVENTION

FastStats   http://www.cdc.gov/nchs/FASTATS/stroke.htm

This online site includes at-a-glance statistics on stroke morbidity, health care use, and mortality. Web links to the data sources are included, as well as related links.

Atlases of Heart Disease and Stroke

- **2008 Atlas of Stroke Hospitalizations Among Medicare Beneficiaries**
  http://www.cdc.gov/dhdsp/library/stroke_hospitalization_atlas.htm.
  This Atlas includes county-level maps of stroke hospitalizations by stroke-subtype, race/ethnicity, discharge status, and co-morbidity. Maps of hospital facilities and stroke specialists are also included.

- **Atlas of Heart Disease and Stroke Among American Indians and Alaska Natives**
  http://www.cdc.gov/dhdsp/library/aian_atlas/index.htm.
  This Atlas focuses on geographic patterns of heart disease and stroke mortality and risk factors for a specific racial/ethnic group in the United States. The Atlas provides insights into the geographic disparities in heart disease and stroke experienced by American Indians and Alaska Natives. The maps present county–by–county heart disease and stroke mortality rates, as well as state–specific prevalence of eight major risk factors for heart disease and stroke.

- **The Atlas of Heart Disease and Stroke**
  http://www.cdc.gov/dhdsp/library/cvd_atlas.htm.
  The atlas addresses the global epidemic of heart disease and stroke in six parts: cardiovascular disease; risk factors; the burden; action; the future and the past; and world tables. All topics of contemporary importance have been addressed through pictures and few words. The atlas is designed for use by policy makers, national and international organizations, health professionals and the general public.

- **The Atlas of Stroke Mortality: Racial, Ethnic and Geographic Disparities in the United States**
  http://www.cdc.gov/dhdsp/library/maps/strokeatlas/index.htm.
  This Atlas provides, for the first time, an extensive series of national and state maps that show local disparities in stroke death rates for the five largest racial and ethnic groups in the United States (i.e., American Indians and Alaska Natives, Asians and Pacific Islanders, blacks, Hispanics, and whites).

- **Men and Heart Disease: An Atlas of Racial and Ethnic Disparities in Mortality**
  http://www.cdc.gov/dhdsp/library/maps/cvdatlas/atlas_mens/mens_download.htm.
  This Atlas provides an extensive series of national and state maps that present local variation in heart disease death rates for all men, American Indian and Alaska Native men, Asian and Pacific Islander men, African American men, Hispanic men, and white men for the period 1991–1995. These maps highlight both substantial racial and ethnic disparities in heart disease and the marked geographic disparities in the burden of heart disease that exist within each race and ethnicity group. In addition, the Atlas includes national maps of local indicators of the social environment. These indicators include the geographic distribution of population by race and ethnicity, availability of local economic resources, and the availability of medical care resources.

- **Women and Heart Disease: An Atlas of Racial and Ethnic Disparities in Mortality**
  http://www.cdc.gov/dhdsp/library/maps/cvdatlas/atlas_womens/womens_download.htm.
  This Atlas includes an extensive series of national and state maps that present local variation in heart disease death rates for all women, American Indian and Alaska Native women, Asian and Pacific Islander women, black women, Hispanic women, and white women for the period 1991–1995. These maps highlight both substantial racial and ethnic disparities in heart disease and the marked geographic disparities in the burden of heart disease that exist within each race and ethnicity group. There are also national maps of local indicators of the social environment. These indicators include the geographic distribution of

population by race and ethnicity, availability of local economic resources, social isolation of elderly women, and the availability of medical care resources.

Burden of Heart Disease and Stroke

- **Pulmonary Hypertension Surveillance—United States, 1980–2002**
  http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5405a1.htm.
  "MMWR Surveillance Summary," published November 2005

- **Data Set Directory of Social Determinants of Health at the Local Level**
  http://www.cdc.gov/dhdsp/library/data_set_directory/index.htm.
  There is widespread interest in the role of social health determinants at the local level. The directory contains an extensive list of data sets that can be used to address these determinants.

- **Selected Reprints from the *MMWR*, 1994–2004**
  http://www.cdc.gov/dhdsp/library/mmwr_reprints.htm.
  A collection of 75 reprints published from 1994 through 2004 in the "Morbidity and Mortality Weekly Report" (MMWR) related to heart disease and stroke.

- **Heart Disease and Stroke Maps**
  http://apps.nccd.cdc.gov/giscvh2/.
  This application presents data for heart disease and stroke mortality and hospitalization rates. The application is produced through collaboration between the CDC and the states. To view, national, state, or county rates for heart disease and stroke mortality and hospitalizations, select a location on the interactive map, the drop-down list, or selected links.

Health, United States   **http://www.cdc.gov/nchs/hus.htm**

Monitoring the health of the American people is an essential step in making sound health policy and setting research and program priorities. In a Chartbook and 150 detailed tables, "Health, United States" provides an annual picture of the health of the entire Nation.

THE MILKEN INSTITUTE

An Unhealthy America: The Economic Impact of Chronic Disease

http://www.chronicdiseaseimpact.com/ebcd.taf.

This website details the enormous financial impact of chronic disease on the U.S. economy – not only in treatment costs, but lost worker productivity – today and in the decades ahead. It also describes the huge savings if a serious effort were made to improve Americans' health. This is an interactive site that provides information at the national and state level, including stroke incidence and treatment costs.

NATIONAL CENTER FOR HEALTH STATISTICS
http://www.cdc.gov/nchs/index.htm.

> The National Center for Health Statistics' website is a rich source of information about America's health. As the Nation's principal health statistics agency, they compile statistical information to guide actions and policies to improve the health of our people. They are a unique public resource for health information - a critical element of public health and health policy.

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE OF THE NATIONAL INSTITUTE OF HEALTH

The Morbidity & Mortality: Chart Book on Cardiovascular, Lung, and Blood Diseases
http://www.nhlbi.nih.gov/resources/docs/cht-book.htm

> The Chartbook is a biennial compilation of data on the size and trends of morbidity and mortality from the cardiovascular, lung, and blood diseases. While most charts describe national prevalence, hospitalizations, and mortality statistics, some of them provide additional information by state or country. Risk factors estimates and the economic costs of these diseases are also included.

RISK FACTORS AND THEIR RELEVANCE

The purpose of this section is to provide information to identify the various risk factors for stroke (both those that can be modified and those that cannot) and to explain the correlation between each risk factor and how that risk factor can lead to a stroke/TIA.

OVERVIEW

What risk factors for stroke can't be changed?

- **Age** — The chance of having a stroke approximately doubles for each decade of life after age 55. While stroke is common among the elderly, a lot of people under 65 also have strokes.

- **Heredity and race** — Stroke risk is greater if a parent, grandparent, sister or brother has had a stroke. African Americans have a much higher risk of death from a stroke than Caucasians. This is partly because blacks have higher risks of high blood pressure, diabetes and obesity.

- **Gender** — Stroke is more common in men than in women. In most age groups, more men than women will have a stroke in a given year. However, more than half of total stroke deaths occur in women. At all ages, more women than men die of stroke. Use of birth control pills and pregnancy pose special stroke risks for women.

- **Prior stroke, TIA or heart attack** — The risk of stroke for someone who has already had one is many times that of a person who has not. Transient ischemic attacks (TIAs) are "warning strokes" that produce stroke-like symptoms but no lasting damage. TIAs are strong predictors of stroke. TIA should be considered a medical emergency and followed up immediately with a healthcare professional.

What risk factors for stroke can be changed?

- **High blood pressure** — People with high blood pressure often have no symptoms, so it is important to have regular blood pressure exams.

- **Smoking** — Quitting smoking reduces stroke risk almost immediately.

- **Diabetes** — Having diabetes raises the chance of having a stroke.

- **High Cholesterol** — Cholesterol can clog arteries and keep the brain from getting the blood it needs. This can cause a stroke. High levels of triglycerides are linked to stroke in some people. People with high blood cholesterol or high blood triglycerides often have no symptoms, so it is important to check blood cholesterol and triglyceride levels regularly.

- **Obesity** — Being overweight raises stroke risk.

INTERNET RESOURCES

AMERICAN HEART ASSOCIATION

Stroke Risk Factors

- **http://www.americanheart.org/presenter.jhtml?identifier=4716**
  Overview of stroke risk factors.

- **http://www.americanheart.org/presenter.jhtml?identifier=2114**
  Overview of high blood pressure and how it is related to increased risk for stroke, including several patient tools (e.g., blood pressure risk calculator).

NATIONAL INSTITUTES OF HEALTH

Know Stroke. Know the Signs. Act in Time.

- **http:// stroke.nih.gov/materials/strokechallenges.htm#Factors**
  The basics on modifiable and unmodifiable stroke risk factors.

- **http://stroke.nih.gov/materials/riskfactors.htm**
  Overview of stroke risk factors (and signs/symptoms) with downloadable bookmark.
  https://ice.iqsolutions.com/ninds/strokepubs.asp Free educational stroke resources for the public
  https://ice.iqsolutions.com/ninds/profstrokepubs.asp Educational stroke resources for health professionals – not all are free.

NATIONAL LIBRARY OF MEDICINE

MedlinePlus – Stroke Section

http://www.nlm.nih.gov/medlineplus/stroke.html

MedlinePlus also contains extensive information about drugs and supplements, an illustrated medical encyclopedia, interactive tutorials, the latest health news, and surgery videos.

NATIONAL STROKE ASSOCIATION

Stroke Risk Factors: Am I at Risk for Stroke?

http://www.stroke.org/site/PageServer?pagename=RISK

Overview of stroke risk factors, including a downloadable tool called a "Stroke Risk Scorecard" to assist patients in discussing their stroke risks with their doctors.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area

http://www.strokecenter.org/education/ais_risk_factors/

Extensive presentation about stroke risk factors for a professional audience.

SIGNS AND SYMPTOMS

The purpose of this section is to list the signs and symptoms of a stroke/TIA for rapid identification and treatment. Time is BRAIN!

OVERVIEW

A stroke happens fast. Most people have two or more signs.

The most common signs are:

- Sudden numbness or weakness of face, arm, or leg (mainly on one side of the body)
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, or loss of balance
- Sudden confusion or trouble talking or understanding speech
- Sudden bad headache with no known cause

INTERNET RESOURCES

AMERICAN STROKE ASSOCIATION

Multimedia Quiz on Stroke Warning Signs

http://www.strokeassociation.org/presenter.jhtml?identifier=3070550

Do you know all the stroke warning signs? Take this quiz and find out!

Learn to Recognize a Stroke

http://www.strokeassociation.org/presenter.jhtml?identifier=1020

General information about stroke.

BETTER HEALTH CHANNEL

Stroke Signs and Symptoms Website

http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Stroke_signs_and_symptoms?open

This website includes general information about stroke signs and symptoms with links to additional resources.

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

Heart Disease and Stroke Prevention Program Stroke Website

http://www.cdc.gov/Stroke/signs_symptoms.htm

This website includes general information about stroke, including a fact sheet on stroke signs and symptoms.

      Fact sheet: http://www.cdc.gov/DHDSP/library/fs_strokesigns.htm

NATIONAL INSTITUTES OF HEALTH

Proceedings of a National Symposium on Rapid Identification and Treatment of Acute Stroke: December 12-13, 1996

http://stroke.nih.gov/resources/stroke_proceedings/index.htm

A monograph that includes recommendations developed in 1996 by representatives from more than 50 organizations interested in the care of stroke patients. Individual papers identify the best ways to reorganize our health care system to make thrombolytic treatments for stroke more readily available.

Increasing Public Recognition and Rapid Response to Stroke – A Task Force Report from the 2002 NINDS Symposium, "Improving the Chain of Recovery for Acute Stroke in Your Community"

http://stroke.nih.gov/resources/stroke_2002/acute_stroke_public_recogn.htm

Highlights:

- For a variety of reasons, stroke patients, their families, and the public at large generally do not recognize and immediately act following the onset of stroke symptoms.

- To date, there is limited experience with interventions to reduce delays, but it is believed that key messages about stroke need to be succinct, intense, and sustained. They should also include motivational components to ensure immediate response to stroke.

- Therefore, multi-level interventions, targeted at high-risk individuals and their families as well as special populations and the public at large, must be researched, sponsored, implemented, and measured for cost-effectiveness and sustainability through a collaborative effort of multiple community stakeholders.

Know Stroke. Know the Signs. Act in Time.

- http://stroke.nih.gov/materials/strokechallenges.htm
  The basics on stroke, including free downloadable 19-page booklet.

- http://stroke.nih.gov/materials/riskfactors.htm
  Overview of stroke risk factors (and signs/symptoms) with downloadable bookmark.

- http://stroke.nih.gov/ documents/ninds_ks_english_4x9_brochure.pdf
  The basics on stroke, including free downloadable 8-page booklet for patients.

- http://stroke.nih.gov/materials/ksposter.htm
  Signs and symptoms poster that can be downloaded and printed.

- http://stroke.nih.gov/documents/Spanish_Stroke_Flipchart_2008.pdf

The basics of stroke in a flipchart that can be downloaded and used to explain the basics of stroke to Spanish-speaking patients and their caregivers.

- **https://ice.iqsolutions.com/ninds/strokepubs.asp**

  Free educational stroke resources for the public.

- **https://ice.iqsolutions.com/ninds/ profstrokepubs.asp**

  Educational stroke resources for health professionals – not all are free.

TRIAGE AND DIAGNOSIS

The purpose of this section is to provide information for appropriate triage/identification of possible stroke/TIA patients for work-up and diagnosis of stroke/TIA.

OVERVIEW

Time is brain! We've all heard it and we all understand it. For every minute not diagnosed and treated there are brain cells permanently lost and others dying but possibly salvageable. No matter where you work or who you are, listen, ask questions, watch. Everyone you encounter could be arriving with symptoms of a stroke.

Know the signs/symptoms of stroke. Post them through-out your work place so they are seen and recognized by everyone. If you encounter someone who you determine is displaying the signs and symptoms of stroke, act F.A.S.T.!

F = Face   **Does one side of the face droop?**

A = Arm   **Does one arm drift downward?**

S = Speech   **Does the speech sound slurred?**

T = Time   **Time to call 9-1-1 (or activate your hospitals emergency system for stroke)**

Activate EMS/911 outside of the hospital as stroke is a medical emergency. Know your facility protocol within the facility for notification of a possible stroke/TIA for emergent evaluation and treatment.

- We have developed a small poster that can be used at the front desk/sign-in area of any business/doctor's office/clinic/E.D. to help recognize signs and symptoms of stroke. The poster is available at **http://www.deltastatesstroke.com**.

- The "Stroke Awareness and Education Toolkit for Healthcare Providers" on CD can access poster by clicking **HERE**.

- The PDF version of the "Stroke Awareness and Education Toolkit for Healthcare Providers" can click HERE to go to poster, located at the end of the toolkit document.

INTERNET RESOURCES

THE BRAIN ATTACK COALITION

Pathways **http://www.stroke-site.org/pathways/pathways.html**

> Information on the step-by-step actions taken by healthcare professionals in caring for stroke patients once a diagnosis has been made, including a range of documents such as internal hospital forms, triage and protocol guidelines, intervention guidelines, as well as stroke care systems development and stroke team/center development.

Stroke Scales **http://www.stroke-site.org/stroke_scales/stroke_scales.html**

> Prehospital-Stroke Scales

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area

- **Emergency Stroke Evaluation and Diagnosis**
  http://www.strokecenter.org/education/ais_evaluation/
- **Stroke Scales and Clinical Assessment Tools**
  http://www.strokecenter.org/trials/scales/index.htm

PROTOCOLS FOR TREATMENT

The purpose of this section is to provide examples of appropriate treatment protocols for use in the work-up and treatment of the acute stroke/TIA patient.

OVERVIEW

Strokes caused by blood clots can be treated with clot-busting drugs such as tPA, or tissue plasminogen activator. tPA must be given within three hours of the start of a stroke to work, and tests must be done first. This is why it is so important for a person having a stroke to get to a hospital fast.

Other medicines are used to treat and to prevent stroke. Anticoagulants, such as warfarin, and antiplatelet agents, such as aspirin, block the blood's ability to clot and can help prevent a stroke in patients with high risk, such as a person who has atrial fibrillation (a kind of irregular heartbeat).

Surgery is sometimes used to treat or prevent stroke. Carotid endarterectomy is a surgery to remove fatty deposits clogging the carotid artery in the neck, which could lead to a stroke. For hemorrhagic stroke, a doctor may perform surgery to place a metal clip at the base of an aneurysm (a thin or weak spot in an artery that balloons out and can burst) or remove abnormal blood vessels.

Rehabilitation is a very important part of recovery for many stroke survivors. The effects of stroke may mean that you must change, relearn, or redefine how you live. Stroke rehabilitation is designed to help you return to independent living.

Rehabilitation does not reverse the effects of a stroke. Its goals are to build your strength, capability, and confidence so you can continue your daily activities despite the effects of your stroke. Rehabilitation services may include:

• Physical therapy to restore movement, balance, and coordination

• Occupational therapy to relearn basic skills such as bathing and dressing

• Speech therapy to relearn how to talk

INTERNET RESOURCES

BEST PRACTICES

THE BRAIN ATTACK COALITION http://www.stroke-site.org/coalition/stroke_center.html
> The Brain Attack Coalition has authored two papers outlining guidelines for stroke centers - one for primary stroke centers (published June 2000 in "JAMA") and one for comprehensive stroke centers (published July 2005 in "Stroke").

THE JOINT COMMISSION

Certificate of Distinction for Primary Stroke Centers

http://www.jointcommission.org/CertificationPrograms/PrimaryStrokeCenters/

The Joint Commission's Certificate of Distinction for Primary Stroke Centers recognizes centers that make exceptional efforts to foster better outcomes for stroke care. The Joint Commission's Primary Stroke Center Certification program was developed in collaboration with the American Stroke Association. It is based on the Brain Attack Coalition's "Recommendations for the Establishment of Primary Stroke Centers."

Search for Certified Primary Stroke Centers at:
http://www.qualitycheck.org/consumer/searchQCR.aspx

AMERICAN HEART ASSOCIATION

Stroke Recommendations and Guidelines

http://www.americanheart.org/presenter.jhtml?identifier=3004586

"ASA Policy Recommendations: Recommendations for the Establishment of Stroke Systems of Care" (2005)

"Recommendations for the Implementation of Telemedicine within Stroke Systems of Care" (2009)

DIAGNOSTIC AND TREATMENT TOOLS

THE BRAIN ATTACK COALITION   **http://www.stroke-site.org/**

Stroke Guidelines
http://www.stroke-site.org/guidelines/guidelines.html

This section provides many sources and samples of stroke guidelines – comprehensive diagnostic tools that help to quickly determine the range and severity of stroke and effective treatment.

Orders
http://www.stroke-site.org/orders/orders.html

This section provides examples of hospital admission orders, physician orders, and checklists.

Pathways
http://www.stroke-site.org/pathways/pathways.html

This section provides detailed information on activities performed by healthcare professionals in caring for stroke patients after the diagnosis has been made. Pathways (also called care tracks and care maps) include a variety of documents such

as internal hospital forms, triage and protocol guidelines, intervention guidelines, in addition to stroke care systems development and stroke team/center development.

NATIONAL STROKE ASSOCIATION   http://www.stroke.org

EMS/Prehospital Providers (education, resources, journals, & publications)
http://www.stroke.org/site/PageServer?pagename=EMS

- National Stroke Association Online Learning Center. EMS, Stroke Rapid Response Training
  http://www.aheconnect.com/nsa/

Medical Professionals (education, resources, guidelines, journals, & publications)
http://www.stroke.org/site/PageServer?pagename=MEDPRO

STROKE REHABILITATION

AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION

Driving After a Stroke
http://www.strokeassociation.org/presenter.jhtml?identifier=3005465

Includes discussion about safety issues and precautions regarding driving after a stroke, including a downloadable fact sheet.

Rehab and Regaining Independence
http://www.strokeassociation.org/presenter.jhtml?identifier=3030401

Provides general information about stroke rehabilitation, including alternative therapies, regaining independence, returning to school/work, and inspirational stories of recovery.

Sexual Activity and Heart Disease or Stroke
http://www.americanheart.org/presenter.jhtml?identifier=4714

Includes downloadable publication, "Sex After Stroke: Our Guide to Intimacy After Stroke."

Stroke Effects
http://www.americanheart.org/presenter.jhtml?identifier=4761

General discussion with links to downloadable publications on living with disability after stroke and caring for someone with aphasia.

NATIONAL INSTITUTES OF HEALTH

Post Stroke Rehabilitation Fact Sheet

http://www.ninds.nih.gov/disorders/stroke/poststrokerehab.htm

Also available in Spanish

http://espanol.ninds.nih.gov/trastornos/apoplejia_rehabilitacion.htm

Stroke Rehabilitation Fact Sheet

http://www.ninds.nih.gov/disorders/stroke/ stroke_rehabilitation.htm

NATIONAL LIBRARY OF MEDICINE

MedlinePlus – Stroke Rehabilitation Section

http://www.nlm.nih.gov/medlineplus/tutorials/strokerehabilitation/htm/index.htm
Interactive tutorial on stroke rehabilitation.

Also available in Spanish at:

http://www.nlm.nih.gov/medlineplus/tutorials/strokerehabilitationspanish/htm/index.htm

NATIONAL STROKE ASSOCIATION

Stroke Survivors Website http://www.stroke.org/site/PageServer?pagename=SURV
Comprehensive website with sections on recovery, life after stroke, effects of stroke, mobility, aphasia, pain, involuntary emotional expression disorder, and vascular dementia. Also includes a "Hope Recovery Guide," online education, stroke support groups, clinical trials, a resource directory, and a program called "STARS" (Steps Against Recurrent Stroke).

Stroke Rehabilitation and Recovery Network
http://www.stroke.org/site/PageServer?pagename=SRN
The Stroke Rehabilitation and Recovery Network is membership association of rehabilitation programs and facilities. The network provides professional education programs; online best-practice sharing and professional networking opportunities; quality improvement support; community and patient education materials; and survivor and caregiver resources.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professional Stroke Resources

- **Stroke Guidelines**
  http://www.strokecenter.org/prof/guidelines.htm#Recovery
- **Stroke Management: Recovery**
  http://www.strokecenter.org/prof/stroke_recovery.htm

The Internet Stroke Center: Patients and Family Resources

- **Recovery After a Stroke**
  http://www.strokecenter.org/patients/ras_toc.htm
- **Caregiver Resources**
  http://www.strokecenter.org/patients/caregivers.htm

SCREENING TOOL FOR REHABILITATION SERVICES – POCKET CARD

Post Acute Levels of Care for Stroke

INPATIENT REHABILITATION FACILITY (IRF)

Acute rehabilitation patients:
- require 2 or more therapies (PT/OT/SLP)
- have capacity for functional improvement
- have potential to participate in 3 hours of therapy at least 5 days per week
- are medically stable but require 24-hr medical/Rehab Nurse monitoring
- all therapy disciplines available (PT, OT, SLP, BehMed)
- physicians are usually Physiatrists (specialists in Physical Medicine & Rehabilitation), Neurologists or Internists

LONG TERM ACUTE CARE (LTAC)

- patients with acute medical or functional impairments or trauma (pulmonary / ventilator, medically complex, wound care, neuro)
- for longer term medical/surgical cases that are acutely ill and cannot participate in a more intense level of rehabilitation
- therapy services available (PT/OT/SLP)
- any physician specialty may admit patients
- average length of stay > 25 days

TRANSITIONAL CARE UNITS (TCU) OR SKILLED NURSING FACILITY (SNF) PATIENTS

- are medically stable and require skilled or less intense rehabilitation
- physician management available-but not onsite daily
- therapy services available (PT, OT, SLP) up to 5 days per week
- 3 day acute care hospital stay required for Medicare reimbursement
- physicians are typically Internal Medicine or Family Medicine

HOME HEALTH

- patient is homebound except for physician appointments or church
- services available (not necessarily daily) include: nursing, PT, OT, SLP, home health aides, social worker
- any physician may initiate a referral

OUTPATIENT THERAPIES (PT, OT, SLP, BEHAVIORAL MEDICINE)

- for patients able to leave their homes to attend therapies
- therapies are typically 1-3 times per week
- any physician may initiate a referral

American Heart Association® | American Stroke Association®
Learn and Live™

Screening Tool for Rehabilitation Services

PHYSICAL THERAPY (PT)

is indicated if there is a decline in:
- lower extremity strength, sensation
- balance, pain
- ability to move in bed
- ability to transfer (sit to stand, supine to sit, etc)
- mobility (walking or propelling a wheelchair)

or if there is:
- recurrent falling
- need for wheelchair assessment/fitting
- lymphedema

OCCUPATIONAL THERAPY (OT)

is indicated if there is a decline in:
- upper extremity strength, sensation
- endurance
- activities of daily living (feeding, grooming, dressing, bathing, toileting)
- functional transfers (tub transfers, toilet transfer)
- home management abilities (cooking, laundry, checkbook skills)
- or if there is need for education in work simplification and/or energy conservation

SPEECH LANGUAGE PATHOLOGY (SLP)

is indicated if there is a decline in:
- communication
- verbal or written expression
- verbal or written comprehension
- speech intelligibility (dysarthria)
- vocal quality (dysphonia)
- memory, thinking skills, or other cognitive abilities
- swallowing (dysphagia)

PSYCHOLOGICAL EVALUATION, NEUROPSYCHOLOGY (PSYCHOLOGY OR BEHAVIORAL MEDICINE)

is indicated if there are issues with:
- cognition (memory, judgment, reasoning, problem solving)
- adjustment to disability
- pain management
- stress management
- mood (depression, anxiety, etc)
- social skills

TENNESSEE STROKE SYSTEMS OF CARE TASK FORCE

DELTA STATES STROKE CONSORTIUM REHABILITATION TASK FORCE

This screening tool is available in PDF format at **http://www.deltastatesstroke.com**. Or in the PDF format of this toolkit, you can click HERE to access the screening tool at the end of the document.

The "Stroke Awareness and Education Toolkit for Healthcare Providers" on CD can access the PDF files by clicking **HERE**.

STROKE PREVENTION

The purpose of this section is to explain the relevance of proper lifestyle modifications to help minimize the risk of stroke/TIA.

OVERVIEW

Up to 80% of strokes can be prevented. Some stroke risk factors cannot be controlled, such as age, family history, and ethnicity. But there are several modifiable risk factors:

• **High blood pressure** — High blood pressure can be controlled by making lifestyle changes, such as eating less salt and exercising more. Sometimes medicine is also prescribed to help lower blood pressure.

• **Smoking** — Quitting smoking reduces stroke risk almost immediately. Call 1-800-QUIT-NOW to reach the local tobacco cessation quitline in your state.

• **Diabetes** — Diabetes can be controlled by maintaining healthy eating and exercise habits, and may require medication or insulin.

• **High Cholesterol** — Cholesterol and triglyceride levels may be lowered by eating a healthy diet with regular exercise. Medication may also be needed to help lower cholesterol to safe levels.

• **Obesity** — The Body Mass Index (BMI) assessment tool can help determine healthy weight **http://www.cdc.gov/nccdphp/dnpa/healthyweight/assessing/bmi/index.htm**. It is important to make healthy food choices and get plenty of exercise. Each week, aim for at least 2 hours and 30 minutes of moderate-intensity aerobic physical activity, 1 hour and 15 minutes of vigorous-intensity aerobic physical activity, or a combination of moderate and vigorous activity. Start by adding more fruits, vegetables, and whole grains to your diet. Take a brisk walk on your lunch break or take the stairs instead of the elevator.

INTERNET RESOURCES

AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION

> **ABCs of Preventing Heart Disease, Stroke and Heart Attack**
> **http://www.strokeassociation.org/presenter.jhtml?identifier=3030379**
>> Includes discussion of nutrition, physical activity, and controlling risky conditions that can cause a stroke.

NATIONAL INSTITUTES OF HEALTH

National Heart Lung and Blood Institute

- **Carotid Endarterectomy (CEA)**

  http://www.nhlbi.nih.gov/health/dci/Diseases/carend/carend_what.html

  Overview of carotid endarterectomy (surgery to remove plaque from the carotid arteries). CEA is used to prevent stroke in people who have carotid artery disease.

National Institute of Diabetes and Digestive and Kidney Diseases

- **Diabetes, Heart Disease, and Stroke**

  http://diabetes.niddk.nih.gov/dm/pubs/stroke/#prevent

  Having diabetes or pre-diabetes puts you at increased risk for heart disease and stroke. You can lower your risk by keeping your blood glucose (also called blood sugar), blood pressure, and blood cholesterol close to the recommended target numbers—the levels suggested by diabetes experts for good health. This site includes information on ways to prevent stroke for people who have diabetes or pre-diabetes.

National Institute of Neurological Disorders and Stroke

- **Brain Basics: Preventing Stroke**

  http://www.ninds.nih.gov/disorders/stroke/preventing_stroke.htm

  Discusses treatable stroke risks and how to reduce and/or eliminate them.

  Also available in Spanish
  http://espanol.ninds.nih.gov/trastornos/previniendo_la_apoplejia.htm

- **Questions and Answers about Carotid Endarterectomy**

  http://www.ninds.nih.gov/disorders/stroke/carotid_endarterectomy_backgrounder.htm

  Overview of Carotid Endarterectomy.

NATIONAL LIBRARY OF MEDICINE

MedlinePlus: Stroke

http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3Aproject=medlineplus&query=Stroke

- **Stroke Risk Factors and Prevention**

  http://www.nlm.nih.gov/medlineplus/ency/article/007418.htm

  Discusses treatable and non-modifiable stroke risks and how to reduce and/or eliminate them, with links for additional information.

- **Carotid Endarterectomy**

  http://www.nlm.nih.gov/medlineplus/tutorials/carotidendarterectomy/htm/index.htm

  Interactive tutorial on carotid endarterectomy.

  Also available in Spanish at:
  http://www.nlm.nih.gov/medlineplus/spanish/tutorials/carotidendarterectomyspanish/htm/index.htm

NATIONAL STROKE ASSOCIATION

Public Stroke Prevention Guidelines
http://www.stroke.org/site/PageServer?pagename=PREVENT
Comprehensive website with sections on stroke risk factors, controllable factors, uncontrollable factors, transient ischemic attack, carotid endarterectomy, STARS (Steps Against Recurrent Stroke), and intracranial atherosclerosis, including brochures, fact sheets, and a stroke risk scorecard.

Recurrent Stroke Prevention
http://www.stroke.org/site/PageServer?pagename=rsp
Information on successful recurrent stroke prevention strategies based on well-documented clinical studies.

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES: OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION

Healthfinder.gov: Talk with Your Doctor about Taking Aspirin Every Day
http://healthfinder.gov/prevention/PrintTopic.aspx?topicID=10
Discusses the potential benefits of taking aspirin to reduce the risk of stroke.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professional Stroke Resources

- **Stroke Prevention**
  http://www.strokecenter.org/prof/stroke_prevention.htm

The Internet Stroke Center: Patients and Family Resources

- **Reducing Your Risk**
  http://www.strokecenter.org/patients/risk.htm

  Overview of stroke prevention, including surgical and medical treatment options to reduce stroke risk. Clinical trials and drug development are also covered.

QUALITY IMPROVEMENT FOR PATIENT CARE

The purpose of this section is to explain the relevance that ongoing quality improvement has in guiding appropriate care and management of the stroke/TIA patient.

OVERVIEW

Quality implies that something of worth or measure is being utilized. In the diagnosis and treatment of stroke, consistency in treatment is the measure or standard that is being examined to help insure that each stroke patient receives the same level of care based on their needs and the treatments available at the facility to which they are taken. An easy way to remedy continuity of stroke care is to utilize standardized order sets and care pathways. The rationale for utilizing standardized order sets and care pathways in the treatment of the TIA and stroke patient is to provide consistency in the care of the patient while re-enforcing the expected care to the practitioner. Variance from the standard invites omissions and errors in work-up and treatment. Once these order sets and care pathways are in place, it then becomes easier to track the care and outcomes of the TIA/stroke patients. Moving forward, stroke is expected to become a core measure by 2012 requiring hospitals to publically report their performance in care of the TIA/stroke patient. CMS has identified 8 stroke measures which are expected to be reported. Those 8 stroke measures are:

Last Updated: Version 3.1

STROKE NATIONAL HOSPITAL INPATIENT QUALITY MEASURES

Set Measure ID #	Measure Short Name
STK-1[1,2]	Venous Thromboembolism (VTE) Prophylaxis
STK-2[1,2]	Discharged on Antithrombotic Therapy
STK-3[1,2]	Anticoagulation Therapy for Atrial Fibrillation/Flutter
STK-4[1,2]	Thrombolytic Therapy
STK-5[1,2]	Antithrombotic Therapy By End of Hospital Day 2
STK-6[1,2]	Discharged on Statin Medication
STK-8[1,2]	Stroke Education
STK-10[1,2]	Assessed for Rehabilitation

[1]CMS Informational ONLY
[2]The Joint Commission ONLY

"Specifications Manual for National Hospital Quality Measures" (4/1/2010-9/30/2010)

In order to track performance, use of a clinical patient management tool is a must for consistency of data abstracted and reported. One commonly utilized program is the "Get With The Guidelines-Stroke" module. No matter which tool is utilized for monitoring and reporting of performance, the end result should be overall improvement in stroke care. For facilities looking to become Joint Commission certified Disease Specific Care Primary Stroke Centers, reporting of in-patient quality measures is a must and becomes a useful way to show performance, identify areas for improvement and document successes. Use your data to focus on the performance of your processes, your systems, your services offered and your staff. The "Specifications Manual for National Hospital Quality Measures" is available for download from The Joint Commission at their website:

http://www.jointcommission.org/PerformanceMeasurement/MeasureReserveLibrary/Spec +Manual+-+ICU.htm

INTERNET RESOURCES

AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION & NCQA

Heart/Stroke Recognition Program

http://www.ncqa.org/hrsp/

> This program provides training to physicians who provide services to people who have heart disease or who have had a stroke, and recognizes physicians who meet quality of care standards in this area.

AMERICAN STROKE ASSOCIATION

Primary Stroke Center Certification Program

http://strokeassociation.org/presenter.jhtml?identifier=3016808

> The Primary Stroke Center Certification Program uses the Recommendations for Primary Stroke Centers, published by the Brain Attack Coalition and American Stroke Association, to evaluate the quality of hospital–provided stroke care.

THE JOINT COMMISSION

Specifications Manual for National Hospital Quality Measures

http://www.jointcommission.org/PerformanceMeasurement/MeasureReserveLibrary /Spec+Manual+-+ICU.htm

The "Specifications Manual for National Hospital Quality Measures – ICU" is comprised of 6 measures. Four have been recommended for potential national implementation, while two measures are to be implemented as test measures not to be publicly reported or included in the Joint Commission accreditation process until additional information on training needs, reliability, and the impact of reliability on the predicted outcomes can be ascertained.

NATIONAL COMMITTEE FOR QUALITY ASSURANCE

   <u>**Health Plan Employer Data Information Set**</u>

http://www.ncqa.org/Programs/HEDIS/

   The Health Plan Employer Data Information Set (HEDIS) is a set of standardized
   performance measures that purchasers and consumers can use to reliably compare the
   performance of managed health care plans. The performance measures in HEDIS
   address many significant public health issues, such as cancer, heart disease, smoking,
   asthma, and diabetes. HEDIS also includes a standardized survey of consumers'
   experiences, which can be used to evaluate plan performance in areas such as
   customer service, access to care, and claims possessing.

PROFESSIONAL EDUCATION

The purpose of this section is to provide resources for ongoing professional education to promote current knowledge of stroke care and available treatment options.

INTERNET RESOURCES

NATIONAL STROKE ASSOCIATION
http://www.stroke.org/site/PageServer?pagename=meded

STROKE CENTER.ORG
http://www.strokecenter.org/education/

AMERICAN HEART ASSOCIATION PROFESSIONAL EDUCATION CENTER
http://learn.heart.org/ihtml/application/student/interface.heart2/index.html

THE DMR WEBWATCHER: STROKE
http://www.disabilityresources.org/STROKE.html

WEBMD STROKE HEALTH CENTER
 http://www.webmd.com/stroke/default.htm

ADVANCED STROKE LIFE SUPPORT
 http://www.asls.net/introduction.html

HEALTHSTREAM: STROKE EDUCATION
http://learn.healthstream.com/content/GenentechStroke/Files/Accessing_Courses_AP.pdf

> 15- to 20-minute modules covering the following topics: Stroke basics, Prehospital evaluation, In-hospital evaluation and treatment, Treatment dosing and administration, Clinical data, Developing an effective stroke center, Coordinating systems of care via telestroke, Myths and facts. In addition, there is an acute ischemic stroke educational video. Each module contains knowledge check assessments and a certificate of completion. They are free of charge and open to visitors.

CENTERS FOR DISEASE CONTROL
http://www.cdc.gov/stroke/materials_for_professionals.htm

AMERICAN ASSOCIATION OF NEUROSCIENCE NURSING
http://www.aann.org/ce/

> This is AANN's (American Association of Neuroscience Nurses) web link to their Continuing Education page, including items that are stroke specific, such as clinical guidelines for practice, CE articles on stroke, and conferences and webinars. Membership

is not required to access most sections of the website. AANN offers a stroke listserv for members that is very valuable with direct access to experts in stroke research and treatment and the latest on stroke care.

AMERICAN ASSOCIATION OF CRITICAL CARE NURSES

www.aacn.org

The American Association of Critical Care Nurses includes an education section and resources that are stroke related, mostly of a critical nature.

ASSOCIATION OF REHABILITATION NURSES

http://www.rehabnurse.org/education/cearticles.html

The Association of Rehabilitation Nurses has educational opportunities for nonmembers.

COMMISSION ON ACCREDITATION OF REHABILITATION FACILITIES

http://www.carf.org/Providers.aspx?content=content/Accreditation/Opportunities/StrokeHelp.htm

Commission on Accreditation of Rehabilitation Facilities has a stroke certification component and additional useful information.

AMERICAN STROKE ASSOCIATION

http://www.strokeassociation.org/presenter.jhtml?identifier=3030024

The American Stroke Association offers many helpful resources to support healthcare professionals, including "Stroke," their monthly peer-reviewed scientific journal and stroke scientific statements on stroke and cardiovascular disease topics. The statements are supported by scientific studies published in recognized journals and have a rigorous review and approval process. Scientific statements generally review data available on a specific subject, evaluate its relationship to overall cardiovascular disease science, and often state an AHA position on the basis of that evaluation.

- **AHA Stroke Community**

  http://pt.wkhealth.com/pt/re/strokesub;jsessionid=MW7BTs5dv6vBb1wvGbsXx hyynwbdM0L9hLsJmhXmhGjvTQy7rZ2L!1749550389!181195629!8091!-1

  The American Heart Association/American Stroke Association's new Stroke Community is aimed at providing resources and a forum for professionals engaged in clinical practice, education, and research related to stroke. The goal for this community is to provide important information about stroke for health care professionals and researchers. The site will include clinical updates and editorial commentaries reflecting advances in the field and information about important relevant presentations at the International Stroke Conference and Annual Scientific Sessions. Summaries of updates to AHA/ASA stroke guidelines will also be provided.

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE

http://stroke.nih.gov/resources/

> The National Institute of Neurological Disorders and Stroke (NINDS) offers a variety of educational materials designed for health care professionals involved in treatment of acute stroke. The materials can be ordered in single copies or in quantity, and can be used in medical schools, educational settings, hospitals, clinics, and other health care facilities. The community education kit is a tool for increasing public awareness about stroke. Additional public education materials on stroke are also available for free from NINDS.

POWERPOINT PRESENTATION

The Delta States Stroke Network has developed a basic PowerPoint slide presentation that can be modified for use with both professional and community audiences. It includes a brief overview of the information presented in this toolkit, with an emphasis on prevention, awareness of signs and symptoms, and the need for urgent treatment. There are two versions of the PowerPoint, one of which includes the citations (with web links to the references). The PowerPoint presentation can be accessed in several ways.

The presentation slides are available in both versions for download as both a PDF file and in Microsoft PowerPoint at **http://www.deltastatesstroke.net.**

The "Stroke Awareness and Education Toolkit for Healthcare Providers" on CD can access the files by clicking below:

> **PDF WITH CITATIONS CLICK HERE**
>
> **PDF WITHOUT CITATIONS CLICK HERE**
>
> **POWERPOINT WITH CITATIONS CLICK HERE**
>
> **POWERPOINT WITHOUT CITATIONS CLICK HERE**

PATIENT EDUCATION

The purpose of this section is to explain the importance of continuing stroke/TIA patient education and to assist the professional by providing various tools and teaching aides which can be used in this process.

HEALTH LITERACY

In order to raise awareness about stroke signs/symptoms and the need for urgent care, healthcare providers must communicate a broad range of stroke awareness messages to a wide variety of audiences. Unfortunately, surveys have shown that nearly half of American adults read at basic levels, and 20% of adults in the United States read below a fifth grade level. Those with low literacy can't read pamphlets or booklets, directions on a bottle of medicine, or the explanations for a food exchange list or other nutritional guidelines. Vocabulary is not their only limitation; often they can't understand the illustrations and medical pictures used in health-care materials. Fortunately, most Americans are deficient only in literacy not intelligence. This means they can learn nearly any health instructions that are designed and presented in ways appropriate for them. However, many health care providers neglect to give patients health information that is suitable, and can therefore be readily understood and followed.

Health literacy is the ability to obtain, process, and understand basic health information and services needed to make appropriate health decisions and follow instructions for treatment. Many factors can contribute to an individual's health literacy, the most obvious being the person's general literacy, the ability to read, write, and understand written words and numbers. However, other factors can impact health literacy, such as the person's experience in the health care system, the complexity of the information being presented, how the material is communicated, and cultural factors that may influence decision-making.
The resources in this section can help healthcare providers understand and cope with health literacy barriers – providing health information that is easy to understand and empowers patients to make knowledgeable health decisions and follow instructions for treatment.

The following chart of resources is excerpted with permission from the "Health Literacy Universal Precautions Toolkit" prepared for the Agency for Healthcare Research and Quality by the North Carolina Program on Health Literacy (University of North Carolina at Chapel Hill). The toolkit is available in its entirety at **http://nchealthliteracy.org/toolkit/** .

Section or Tool	Resource Name and Internet URL (universal resource locator)
Overview	**Prevalence Calculator** Pfizer Clear Health Communication Initiative **http://www.pfizerhealthliteracy.com/physicians-providers/prevalence-calculator.html** **Health Literacy Video** American College of Physicians Foundation **http://acpfoundation.org/hl/hlvideo.htm** **Colon Cancer Screening** Health Care Provider-Directed Intervention to Increase Colorectal Cancer Screening Among Veterans: Results of a Randomized Controlled Trial **http://www.jco.ascopubs.org/cgi/content/abstract/23/7/1548** **Depression Management** Literacy Education as Treatment for Depression in Patients with Limited Literacy and Depression **http://www.ncbi.nlm.nih.gov/pubmed/16881941** **Diabetes and Heart Failure Management** Influence of Patient Literacy on Effectiveness of a Primary Care-Based Diabetes Management Program **http://jama.ama-assn.org/cgi/content/abstract/292/14/1711** **Automated Telephone Self-Management Support System:** Effects of Self-Management Support on Structure, Process, and Outcome Among Vulnerable Patients with Diabetes: A Three-Arm Practical Clinical Trial **http://care.diabetesjournals.org/content/32/4/559.abstract** **Plan-Do-Study-Act Worksheet** Institute for Healthcare Improvement **http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/Tools/Plan-Do-Study-Act%20(PDSA)%20Worksheet**
Tool 1: Form a Team	**Health Literacy Video** American College of Physicians Foundation **http://acpfoundation.org/hl/hlvideo.htm**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 1: Form a Team (cont.)	**Health Literacy and Patient Safety: Help Patients Understand (video)** American Medical Association Foundation **http://www.ama-assn.org/ama/no-index/about-ama/8035.shtml** **Prevalence Calculator** Pfizer Clear Health Communication Initiative **http://www.pfizerhealthliteracy.com/physicians-providers/prevalence-calculator.html** **How to Improve** The Institute for Healthcare Improvement **http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove**
Tool 2: Assess Your Practice	**The Health Literacy Environment of Hospitals and Health Centers. Partners for Action: Making Your Health Care Facility Literacy-Friendly** Harvard University **http://www.hsph.harvard.edu/healthliteracy/HealthLiteracyEnvironment.pdf?id=1163** **Is Our Pharmacy Meeting Patients' Needs? A Pharmacy Health Literacy Assessment Tool** Agency for Healthcare Research and Quality **http://www.ahrq.gov/qual/pharmlit/pharmlit.pdf**
Tool 3: Raise Awareness	**Health Literacy Video** American College of Physicians Foundation **http://acpfoundation.org/hl/hlvideo.htm** **Health Literacy and Patient Safety: Help Patients Understand (video)** American Medical Association Foundation **http://www.ama-assn.org/ama/no-index/about-ama/8035.shtml** **Unified Health Communication 101 – Addressing Health Literacy, Cultural Competency, and Limited English Proficiency (online training)** Health Resources and Services Administration **ftp://ftp.hrsa.gov/healthliteracy/training.pdf**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 3: Raise Awareness (Cont.)	**Health Literacy and Public Health** New York New Jersey Public Health Training Center **http://nynj-phtc.org/phLit/Home/phlit-login.cfm** **Prevalence Calculator** Pfizer Clear Health Communication Initiative **http://www.pfizerhealthliteracy.com/physicians-providers/prevalence-calculator.html** **Health Literacy and Patient Safety: Help Patients Understand (manual)** American Medical Association Foundation **http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf**
Tool 4: Tips for Communicating Clearly	**Health Literacy and Patient Safety: Help Patients Understand (manual)** American Medical Association Foundation **http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf** **Plain Language Thesaurus for Health Communication** Centers for Disease Control and Prevention **http://depts.washington.edu/respcare/public/info/Plain_Language_Thesaurus_for_Health_Communications.pdf**
Tool 5: The Teach-Back Method	**Teach-Back Video** North Carolina Program on Health Literacy **http://nchealthliteracy.org/teachingaids.html** **Health Literacy and Patient Safety: Help Patients Understand (video)** American Medical Association Foundation **http://www.ama-assn.org/ama/no-index/about-ama/8035.shtml**
Tool 6: Follow up with Patients	**Automated Telephone Reminders: A Tool to Help Refill Medicines On Time** Agency for Healthcare Research and Quality **http://www.ahrq.gov/qual/callscript.pdf** **Enhancing Doctor-Patient Communication Using E-mail: A Pilot Study** American Board of Family Practice **http://www.jabfm.org/cgi/content/full/18/3/180**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 7: Telephone Considerations	**How Does Your Practice Sound on the Phone?** American Academy of Family Physicians **http://www.aafp.org/fpm/990100fm/45.html#x2**
Tool 8: Brown Bag Medication Review	**Health Literacy and Patient Safety: Help Patients Understand (manual)** American Medical Association Foundation **http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf** **Brown Bag Toolkit** Ohio Patient Safety Institute **http://www.ohiopatientsafety.org/meds/default.htm**
Tool 9: How to Address Language Differences	**"I Speak" Cards** U.S. Department of Commerce – Language Identification Flashcard **http://www.lep.gov/ISpeakCards2004.pdf** **Patient's Rights** State of Florida – Agency for Workforce Innovation **http://www.floridajobs.org/PDG/PostersforEmployers/IS%20Poster%2011x17.pdf** **Directory of Translation and Interpreting Services** American Translators Association **https://www.atanet.org/onlinedirectories/individuals.php** **Translator and Interpreter Directory** ProZ **http://www.proz.com/translator-directory/** **MedlinePlus** (health information in multiple languages) National Library of Medicine **http://www.nlm.nih.gov/medlineplus/languages/languages.html** **Multi-lingual Educational Material** Healthy Roads Media **http://www.healthyroadsmedia.org/** **Quality Translations in Multiple Languages** Health Information Translations **http://www.healthinfotranslations.com/**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 9: How to Address Language Differences (cont'd)	**Addressing Language and Culture** California Academy of Family Physicians Foundation **http://www.familydocs.org/system/files/AddressingLanguageandCulture.pdf** **The Health Care Language Services Implementation Guide** U.S. Department of Health and Human Services **https://hclsig.thinkculturalhealth.org/** **Office Guide to Communicating with Limited English Proficient Patients** American Medical Association **http://www.ama-assn.org/ama1/pub/upload/mm/433/lep_booklet.pdf** **More Than Words Toolkit** Hablamos Juntos **http://www.hablamosjuntos.org/mtw/default.toolkit.asp** **Unified Health Communication 101 – Addressing Health Literacy, Cultural Competency and Limited English Proficiency (online training)** Health Resources and Services Administration **ftp://ftp.hrsa.gov/healthliteracy/training.pdf**
Tool 10: Culture & Other Considerations	**Think Cultural Health: Bridging the Healthcare Gap Through Cultural Competency** U.S. Department of Health and Human Services **https://www.thinkculturalhealth.org/** **Unified Health Communication 101 – Addressing Health Literacy, Cultural Competency, and Limited English Proficiency (online training)** Health Resources and Services Administration **ftp://ftp.hrsa.gov/healthliteracy/training.pdf** **EthnoMed (multi-cultural information)** Integrating Cultural Information into Clinical Practice **http://ethnomed.org/** **Culture Clues (tip sheets)** University of Washington Medical Center **http://depts.washington.edu/pfes/CultureClues.htm** **Cultural Competence Resources for Health Care Providers** Health Resources and Services Administration

Section or Tool	Resource Name and Internet URL (universal resource locator)
	http://www.hrsa.gov/culturalcompetence/
Tool 11: Design Easy-to-Read Material	**Clear Doc Index** Literacy Partners of Manitoba http://www.plainlanguage.mb.literacy.ca/resources/ClearDoc2004.pdf **Clear and to the Point: Guidelines for Using Plain Language at NIH** Harvard School of Public Health http://www.hsph.harvard.edu/healthliteracy/practice/creating-materials/index.html **Readability Formulas** ReadabilityFormulas.com http://www.readabilityformulas.com/free-readability-formula-assessment.php **Plain Language Thesaurus for Health Communications** Centers for Disease Control and Prevention http://depts.washington.edu/respcare/public/info/Plain_Language_Thesaurus_for_Health_Communications.pdf **In Other Words…Can They Understand? Testing Patient Education Materials With Intended Readers** Health Literacy Consulting http://www.healthliteracy.com/article.asp?PageID=3811
Tool 12: Use Health Education Material Effectively	**Dusty the Asthma Goldfish and His Asthma Triggers Fun Book (English & Spanish)** Environmental Protection Agency http://www.epa.gov/asthma/publications.html#Dusty **Attention Deficit/Hyperactivity Disorder (ADHD)** National Institute of Mental Health http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder-easy-to-read/complete.pdf **Managing Chemotherapy Side Effects** National Institutes of Health http://www.cancer.gov/cancertopics/chemo-side-effects/constipation.pdf **Using the Chemotherapy Side Effects Fact Sheets** National Institutes of Health http://www.cancer.gov/cancertopics/chemo-side-effects/using.pdf

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 12: Use Health Education Material Effectively (Cont.)	**Diabetes: Know the Signs** Learning about Diabetes **http://www.learningaboutdiabetes.org/downloads/KnowTheSignsEN100404.pdf** **Prevent and Control High Blood Pressure: Mission Possible** National Institutes of Health **http://pdfcast.org/pdf/prevent-and-control-high-blood-pressure-mission-possible** **Take Steps-Prevent High Blood Pressure!** National Heart, Lung, and Blood Institute **http://www.nhlbi.nih.gov/health/public/heart/other/sp_hbp.pdf** **Your Guide to Preventing and Treating Blood Clots** Agency for Healthcare Research and Quality **http://www.ahrq.gov/consumer/bloodclots.pdf** **Help for Smokers and Other Tobacco Users** Agency for Healthcare Research and Quality **http://www.ahrq.gov/consumer/tobacco/helpsmokers.pdf** **Help Your Child Gain Control Over Asthma** Environmental Protection Agency **http://www.epa.gov/iaq/schools/pdfs/publications/ll_asthma_brochure.pdf** **Caring for Your Heart: Living Well with Heart Failure** North Carolina Program on Health Literacy **http://www.nchealthliteracy.org/hfselfmanage.html** **Diabetes Literacy and Numeracy Education Toolkit** Vanderbilt University **http://www.mc.vanderbilt.edu/diabetes/drtc/preventionandcontrol/tools.php**
Tool 13: Welcome Patients: Helpful Attitudes, Signs and More	**The Health Literacy Environment of Hospitals and Health Centers. Partners for Action: Making Your Health Care Facility Literacy-Friendly** Harvard University **http://www.hsph.harvard.edu/healthliteracy/HealthLiteracyEnvironment.pdf?id=1163** **"I Speak" Cards**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 13: Welcome Patients: Helpful Attitudes, Signs and More (cont'd)	U.S. Department of Commerce – Language Identification Flashcard **http://www.lep.gov/ISpeakCards2004.pdf** **AHRQ Questions Are the Answer** Agency for Healthcare Research and Quality **http://www.ahrq.gov/questionsaretheanswer/level2col_1.asp?nav=2colNav00&content=09_0_videos** **We Speak Together (graphic symbols)** Hablamos Juntos **http://www.hablamosjuntos.org/signage/symbols/default.using_symbols.asp#sa** **Health Literacy and Patient Safety: Help Patients Understand (manual)** American Medical Association Foundation **http://www.ama-assn.org/ama1/pub/upload/mm/367/healthlitclinicians.pdf**
Tool 14: Encourage Questions	**Ask Me 3** The Partnership for Clear Health Communication **http://www.npsf.org/askme3/PCHC/** **Questions Are the Answer** Agency for Healthcare Research and Quality **http://www.ahrq.gov/questionsaretheanswer/** **Questions Are the Answer – Videos** **http://www.ahrq.gov/questionsaretheanswer/level2col_1.asp?nav=2colNav00&content=09_0_videos** **Questions Are the Answer – handouts** **http://www.ahrq.gov/consumer/quicktips/doctalk.pdf** **Questions Are the Answer – online question builder** **http://www.ahrq.gov/questionsaretheanswer/questionBuilder.aspx**
Tool 15: Make Action Plans	**Ready. Set. Action Plan! How to Effectively Use the Diabetes Guide (video)** American College of Physicians Foundation **http://acpfoundation.org/hl/diabguide.htm** **Action Plan Project** University of California at San Francisco School of Medicine **http://www.familymedicine.medschool.ucsf.edu/community_service/actionPlan.aspx** **Helping Patients Adopt Healthier Behaviors**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 15: Make Action Plans (cont.)	Clinical Diabetes **http://clinical.diabetesjournals.org/content/25/2/66.full.pdf** **What are Action Plans?** University of California at San Francisco School of Medicine **http://www.familymedicine.medschool.ucsf.edu/pdf/actionPlan/WhatAreAction Plans.pdf**
Tool 16: Improve Medication Adherence and Accuracy	**MedCard** Iowa Healthcare Collaborative **http://www.ihconline.org/UserDocs/Pages/MedCard.pdf** **Pill Chart** North Carolina Program on Health Literacy **http://www.nchealthliteracy.org/comm_aids/2c%20Daily%20Meds%20English.pd f** **Pill Cards** Agency for Healthcare Research and Quality **http://www.ahrq.gov/qual/pillcard/pillcard.htm**
Tool 17: Get Patient Feedback	**CAHPS® Item Set to Address Health Literacy (in the CAHPS® Clinician and Group Survey)** Agency for Healthcare Research and Quality **https://www.cahps.ahrq.gov/cahpskit/files/351a-4_AdultPrim_Eng_4pt_V1.pdf** **CAHPS® Survey and Reporting Kits** Agency for Healthcare Research and Quality **https://www.cahps.ahrq.gov/cahpskit/CG/CGChooseQx4P.asp** **Fielding the CAHPS® Clinician and Group Survey** Agency for Healthcare Research and Quality **https://www.cahps.ahrq.gov/cahpskit/files/33_CG_Fielding_the_Survey.pdf** **About the CAHPS® Item Set for Addressing Health Literacy** Agency for Healthcare Research and Quality **http://www.cahps.ahrq.gov/CAHPSkit/files/1311_About_Health_Lit.pdf** **Navigating the Healthcare System: A Health Literacy Perspective Through the Eyes of**

Section or Tool	Resource Name and Internet URL (universal resource locator)
Tool 17: Get Patient Feedback **(cont.)**	**Patients** North Carolina Program on Health Literacy **http://www.nchealthliteracy.org/presentations/Patient%20Experience.ppt** **The Health Literacy Environment of Hospitals and Health Centers. Partners for Action: Making Your Health Care Facility Literacy-Friendly** Harvard University **http://www.hsph.harvard.edu/healthliteracy/HealthLiteracyEnvironment.pdf?id=1163** **In Other Words…Can They Understand? Testing Patient Education Materials With Intended Readers** Health Literacy Consulting **http://www.healthliteracy.com/article.asp?PageID=3811**
Tool 18: Link Patients to Non-Medical Support	**2-1-1-Information & Referral Search** The United Way and Alliance for Information Referral Systems **http://www.211.org/** **Notary Public Training Course Locator** Notary Rotary **http://www.notaryrotary.com/**
Tool 19: Medication Resources	**Select Care Benefits Network (discount medicines)** **http://www.scbn.org/healthcare_professionals.html** **RX Assist** AstraZeneca **http://www.rxassist.org/**
Tool 20: Use Health and Literacy Resources in the Community	**MedlinePlus Go Local** National Library of Medicine **http://www.nlm.nih.gov/medlineplus/golocal/index.html** **The Literacy Directory** National Institute of Literacy **http://literacydirectory.org/**
Appendix: PDSA Directions and Examples	**Plan-Do-Study-Act Worksheet** Institute for Healthcare Improvement **http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/Tools/Plan-Do-Study-Act%20(PDSA)%20Worksheet**

Section or Tool	Resource Name and Internet URL (universal resource locator)
	Model for Improvement American Academy of Pediatrics **http://aap.org/qualityimprovement/quiin/resources/ModelforImprovement.pdf**

MULTIMEDIA PATIENT RESOURCES

AMERICAN HEART ASSOCIATION/AMERICAN STROKE ASSOCIATION

<u>**Overview**</u>   **www.americanheart.org**   **www.strokeassociation.org**

The American Heart Association is a national voluntary health agency to help reduce disability and death from cardiovascular diseases and stroke.

The American Stroke Association is a division of the American Heart Association that is focused on reducing risk, disability and death from stroke through research, education, fundraising and advocacy. The American Stroke Association spends more money on stroke research and programs than any other organization except the federal government. The American Stroke Association offers a wide array of programs, products and services.

<u>**Resources**</u>

- **American Heart Association Consumer & Patient Education Materials**
  http://www.americanheart.org/presenter.jhtml?identifier=1200021
  Brochures cover a wide range of cardiovascular health and stroke topics. Order up to 10 samples of different brochures free or purchase brochures in bulk at Krames. Some materials are also available in Spanish.
  - Brochures
  - Videos

- **American Stroke Association Patient Education Materials**
  http://www.strokeassociation.org/presenter.jhtml?identifier=3030083
  Brochures cover topics such as stroke care, prevention and emergencies. Order up to 10 samples of different brochures free or purchase the toolkit and brochures in bulk at Krames. Downloadable patient education materials are available for free. Some materials are also available in Spanish.
  - Toolkit
  - Brochures
  - Downloadable education materials

- **Public Service Announcements (PSAs)**
  www.americanheart.org/psa
  Download PSAs in the following formats for free. Some PSAs are also available in Spanish.

  - Video
  - Audio
  - Print
  - Outdoor
  - Web

- **Let's Talk About Stroke**
  www.strokeassociation.com/letstalkaboutstroke
  A series of free downloadable patient information sheets that present information in a question-and-answer format that's brief, easy to follow and easy to read. Topics include stroke prevention and life after stroke. Many sheets are also available in Spanish.

- **Krames**
  www.krames.com/aha
  Krames is a provider of patient education products. American Heart Association and American Stroke Association resources are available for purchase at **www.krames.com/aha** or **here**. Some materials are also available in Spanish.

  - Brochures
  - Toolkits

Other Initiatives

- **Power to End Stroke**
  www.powertoendstroke.org
  Power to End Stroke is an education and awareness campaign that focuses on African Americans. It was created by the American Heart Association/American Stroke Association to help reduce stroke, the risk of stroke and raise critical awareness within the African American population. Heart disease and stroke are major health risks for all people, but African Americans are at particularly high risk.

  Download materials for free at **www.powertoendstroke.com** under "Helpful Tools"

  - Toolkits
  - Printable Guides

  Purchase materials and merchandise at **www.shoppower.org**

  - Brochures
  - Poster

- Toolkit
- Pledge Card
- Cookbooks
- Bracelet
- Lapel Pins
- Messenger Bag

- **Give Me 5 for Stroke**

  www.giveme5forstroke.org

  This campaign was created by the Stroke Collaborative, a joint campaign of the American Academy of Neurology, the American College of Emergency Physicians, and the American Heart Association/American Stroke Association to increase awareness among Americans of stroke symptoms, to call 9-1-1, and get to the emergency department fast. The campaign is inclusive of all of the warning signs of a stroke.

  Educational materials can be downloaded for free at:
  www.giveme5forstroke.org/patients/educationalMaterials

  - Handouts
  - Materials in Spanish

  Campaign materials are available at:
  www.giveme5forstroke.org/media/campaignMaterials

  - Posters
  - Postcards

- **Bad Fat Brothers**

  www.badfatsbrothers.com

  Food companies use cartoons characters to sell sugary fatty foods to kids. The American Heart Association has counterattacked with its Bad Fat Brothers campaign. The campaign is part of "Face The Fats," an educational campaign to teach consumers how to minimize trans fat in their diet, while avoiding the unintended health consequence of defaulting to more saturated fat. The campaign features an "edutainment" Web site where the Bad Fats Brothers -- named Sat and Trans -- come to life, an interactive fat calculator and recipes developed by celebrity chef Alton Brown. Click **here** (**http://www.badfatbrothers.com/BFB.html**) for the cartoon webisode of the Bad Fat Brothers.

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE
http://stroke.nih.gov

Know Stroke. Know the Signs. Act in Time.

The National Institute of Neurological Disorders and Stroke (NINDS) developed this public education campaign to help build awareness of the symptoms of stroke and the need to act quickly. There are many free stroke educational materials and resources to create public education campaigns to build awareness of the symptoms of stroke and the need to act quickly. The Know Stroke campaign maintains an active **Facebook page** at **http://www.facebook.com/KnowStroke**.

Materials can be ordered for a fee at **https://ice.iqsolutions.com/ninds/strokepubs.asp**.

Order up to 10 of materials free or purchase. If you wish to receive more than 10 copies, call the NINDS Brain Resources and Information Network (BRAIN) at 800-352-9424 or 301-496-5751 or email **braininfo@ninds.nih.gov** with details about how you plan to use the additional materials.

Some materials are also available in Spanish.

- Brochures
- Poster
- Wallet Card
- Bookmark
- Video
- Toolkit
- PSAs
- Facebook

NATIONAL STROKE ASSOCIATION

www.stroke.org

Overview

The National Stroke Association is the only national organization in the United States that focuses 100% of its efforts on stroke. National Stroke Association achieves its mission to lower the incidence and impact of stroke by developing compelling community outreach programs, calling for continued improvement in the quality of stroke patient care, and educating both healthcare professionals and the general public about stroke.

Resources

A variety of educational materials can be purchased online at **http://nsa.networkats.com/members_online/members/createorder.asp**.

Materials can also be ordered via phone or fax with the **Stroke Awareness Month Catalog and Order Form**.

- Brochures
- Posters

- Videos
- Wallet Card
- Merchandise
- Facebook
- And More!

There are also materials and ideas for implementing your own National Stroke Awareness Month initiatives available for free at **www.stroke.org/SAM_materials**

- PowerPoint Presentation
- Paycheck/Bag Stuffer
- Flyer
- PSAs
- And More!

MASSACHUSETTS DEPARTMENT OF HEALTH AND HUMAN SERVICES
www.mass.gov

Stroke Heroes Act FAST

The FAST message was created to simplify the warning signs for stroke. It is based on the Cincinnati Pre-Hospital Stroke Scale. This message is used in materials developed by the Massachusetts Department of Health.

Materials can be downloaded for free at **www.maclearinghouse.com/catalogpageHDSP.htm**. They are also available for a nominal shipping fee for out-of-state requests by using the **Out of State Order Form**. Materials are also available in Spanish.

- Brochure
- Poster

AGA MEDICAL CORPORATION
www.amplatzer.com

Never Give Up: The Tedy Bruschi Story

AGA Medical Corporation has partnered with stroke survivor and former professional football player Tedy Bruschi on a series of short videos detailing his experience with a stroke in 2005.

Videos can be viewed on the "Tackling Stroke" channel on YouTube at **http://www.youtube.com/user/TacklingStroke** or through the AGA Medical Corporation's website at **http://www.amplatzer.com/PatientsandFamilies/tabid/823**. Topics include Signs & Symptoms, Experiencing a Stroke, and Recovery From Stroke, among others.

- Video
- Facebook
- Twitter

HEALTH INFORMATION TRANSLATIONS
http://www.healthinfotranslations.com

Overview
Print education materials created by the Ohio State University Medical Center, Ohio Health, the Mount Carmel Foundation, and Nationwide Children's Hospital in Columbus, Ohio. In addition to Stroke, topics include risk factors such as High Blood Pressure, Cholesterol, Atrial Fibrillation, and others in more than a dozen languages, including English, Russian, Somali, Spanish, Ukrainian, and Vietnamese. In addition, there are Windows Media Files for Stroke, High Blood Pressure and Cholesterol in American Sign Language.

Resources
Materials and videos are available for free from the **Health Information Translations website**. Search on language or health topic.
- Handouts
- Video (for ASL)

Patient Education Materials Quick Reference Guide

	Brochure	Handout	Poster	Wallet Card	Video	PSA	PowerPoint	Toolkit	Merchandise	Spanish	Social Media	Free
AHA Consumer & Patient Education Materials	✓				✓					✓		Free Samples
ASA Patient Education	✓	✓						✓		✓		Free Samples
PSAs						✓				✓		Yes
Let's Talk About Stroke		✓								✓		Yes
Krames	✓							✓		✓		No
Power to End Stroke	✓	✓	✓					✓	✓			Varies
Bad Fat Brothers					✓							Yes
Give Me 5 For Stroke		✓	✓									Yes
Know Stroke. Know the Signs. Act in Time.	✓		✓	✓	✓			✓		✓	✓	Free Samples
National Stroke Association	✓		✓	✓	✓	✓	✓		✓		✓	Varies
Stroke Heroes Act FAST	✓		✓	✓		✓				✓		No
Never Give Up: The Tedy Bruschi Story					✓						✓	Yes
Health Information Translations		✓			✓					✓		Yes

IDEAS FOR STROKE AWARENESS AND EDUCATION ACTIVITIES

Around the Hospital

- Create a community education outreach team with public relations, volunteers, ambassadors, and hospital educators

- Host an open house, public forum or reception where people can come and learn about the hospital and its stroke programs

- Piggyback on existing hospital programs such as mammography clinics

- Have risk factor screenings at health fairs and flu shot clinics

- Set up a stroke educational display or table in the lobby for visitors with posters and brochures (see "**Examples of Stroke Education Materials**" section of this toolkit).

- Organize a stroke awareness day and have clinical staff conduct stroke risk assessments on patients

- Post information about stroke such as risk factors and warning signs on the hospital website

- Have a message about stroke on the hospital phone recording or on hospital TV

- Submit a stroke-related article to the hospital newsletter

- Display posters in waiting rooms, table tents in the cafeteria or put a message about stroke on coffee sleeve stickers (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Have cafeteria giveaways such as wristbands, pens or a bag of popcorn that has stroke related message on the bag

- Have daily or weekly stroke facts on a bulletin board

- Provide a stroke-themed coloring page for kids

- Offer free stroke screenings

In the Community

- Have a stroke education table and offer stroke screenings at health fairs, cultural festivals, or other community events

- Distribute educational materials to community centers, libraries or grocery stores (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Use a PowerPoint presentation to give public talks about stroke in your community (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Partner with local businesses to promote stroke awareness in their workplaces

- Encourage your local community colleges or universities to host stroke health forums Stroke Awareness and Education Resource Toolkit

- Send out a stroke prevention "tip of the week" email

- Coordinate community health fairs or stroke-risk screenings, make sure they are accessible to low-income residents

- Organize an events at churches in your community distribute educational materials (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Host a fundraising event such as a softball tournament, bowl-a-thon, golf tournament or a walk/run to raise awareness and money for a stroke-related cause

- Work with a local restaurant to host an evening in which proceeds for a night go to a stroke-related cause

- Submit an stroke-themed article to a community, organization or business newsletter

- Work with employee wellness coordinators at local businesses

- Host or speak at a senior supper

- Partner with stroke support groups

- Arrange presentations on stroke to EMS, local senior centers, schools, churches

- Encourage local pharmacies to insert information about stroke in all prescription bags during Stroke Awareness Month (May) or any month

- Organize a stroke awareness art or video contest at a local school

- Utilize EMTs as health educators

- Create merchandise such as bags, magnets, or other freebies with a message about stroke or distribute existing merchandise at community events

In the Media

- Contact local media and ask them to cover stroke awareness activities and profile stroke survivors

- Have a Neurologist to talk about stroke on local TV or radio

- Arrange Public Service Announcements (PSAs) for local TV, radio or newspapers (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Speak on local radio and TV stations about stroke signs and symptoms

- Submit articles to local newspapers

Tips for Getting Started

- Still don't know where to start? Check out the National Stroke Association's 10 Steps to Plan an Event (see "**Examples of Stroke Education Materials**" section of this toolkit)

- Put yourself out there and let the community know you are there to speak to them

- Use existing free stroke education materials

- Involve a diverse group of people in the planning phase such as volunteer services, marketing and public relations, women's health, health educators, neurologists or nurses

- Team up with outside partners such as your local state health department's heart disease and stroke prevention program, Minnesota Stroke Partnership, the American Heart Association/American Stroke Association, the National Stroke Association, the Centers for Disease Control, TV and radio stations (see "**Partners** and **Heart Disease and Stroke Prevention Program Contacts**" sections of this toolkit)

- Explore different venues such as adult day care, screening or flu shot clinics, senior Sunday luncheon, community health fairs, education partners, malls, churches, schools, EMS or senior centers

- Be prepared for challenges with the environment (space, noise, cost), language, audiovisual equipment, audience, budget and planning constraints or a dwindling volunteer pool

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Activities were adapted from the Great Lakes Regional Stroke Network's "Stroke Education Month and Activities," The Wave, Vol. 4, Issue 2; the National Stroke Association's "National Stroke Awareness Month Participation Ideas"; and the Stroke Collaborative Reaching for Excellence's (SCORE) "Stroke Community Education Sample Activities."

BIBLIOGRAPHY AND OTHER USEFUL RESOURCES

The purpose of this section is to identify sources used in the development of this toolkit and to offer a list of other relevant resources that may be of assistance in the care and education of the stroke/TIA patient and their family.

ADVANCED STROKE LIFE SUPPORT
http://www.asls.net/introduction.html

AETNA INTELIHEALTH
> **Stroke** http://www.intelihealth.com/IH/ihtIH/WSIHW000/9339/10810.html

AMERICAN ACADEMY OF NEUROLOGY
http://www.aan.com/go/home

AMERICAN ASSOCIATION OF NEUROSCIENCE NURSING
http://www.aann.org/ce/

AMERICAN HEART ASSOCIATION
> **Stroke Recommendations and Guidelines**
> http://www.americanheart.org/presenter.jhtml?identifier=3004586
>
> **Professional Education Center**
> http://learn.heart.org/ihtml/application/student/interface.heart2/index.html

AMERICAN STROKE ASSOCIATION
http://www.strokeassociation.org

BETTER HEALTH CHANNEL
> **Stroke Signs and Symptoms Website**
> http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Stroke_signs_and_symptoms?open

THE BRAIN ATTACK COALITION
http://www.stroke-site.org/

- **Coalition Initiatives**
  http://www.stroke-site.org/coalition/coalition.html

  Information about "Stroke Strikes Fast" initiative, a stroke symptom guide, and two articles on establishing a stroke center.

- **Guidelines: Comprehensive diagnostic tools determine range and severity of stroke and effective treatment**
  http://www.stroke-site.org/guidelines/guidelines.html

- **Orders: Examples of Hospital Admission Orders, Physician Orders, and checklists**
  http://www.stroke-site.org/orders/orders.html

- **Pathways (Care Tracks, Care Maps): Information on step-by-step actions taken by healthcare professionals in caring for stroke patients**
  http://www.stroke-site.org/pathways/pathways.html

- **Patient Resources**
  http://www.stroke-site.org/patnt_resources/patnt_resources.html

  Useful information and helpful resources for stroke patients, their families and caregivers from the Brain Attack Coalition members. The BAC primarily serves medical professionals, but most of our members offer extensive information for the public.

THE BRAIN MATTERS

www.thebrainmatters.org

CENTERS FOR DISEASE CONTROL AND PREVENTION

http://www.cdc.gov/

> **The Stroke Website**
> http://www.cdc.gov/stroke/

THE DMR WEBWATCHER: STROKE

> http://www.disabilityresources.org/STROKE.html

FEDERAL DRUG ADMINISTRATION

> **Stroke** http://www.fda.gov/ForConsumers/ByAudience/ForWomen/ucm118564.htm

HEALTHSTREAM: STROKE EDUCATION

http://learn.healthstream.com/content/GenentechStroke/Files/Accessing_Courses_AP.pdf

THE JOINT COMMISSION

> **Certificate of Distinction for Primary Stroke Centers**
> http://www.jointcommission.org/CertificationPrograms/PrimaryStrokeCenters/

NATIONAL BRAIN ANEURYSM FOUNDATION

www.Bafound.org

> Education for ED Physicians on subarachnoid hemorrhage

NATIONAL INSTITUTES OF HEALTH

National Institute of Neurological Disorders and Stroke

- **Know Stroke. Know the Signs. Act in Time**

    http://www.ninds.nih.gov/disorders/stroke/knowstroke.htmU

- **Proceedings of a National Symposium on Rapid Identification and Treatment of Acute Stroke: December 12-13, 1996**

    http://stroke.nih.gov/resources/stroke_proceedings/index.htm

- **Stroke** http://www.ninds.nih.gov/disorders/stroke/stroke.htm

- **Stroke: Hope through Research**

    http://www.ninds.nih.gov/disorders/stroke/detail_stroke.htm

- **What You Need to Know about Stroke**

    http://www.ninds.nih.gov/disorders/stroke/stroke_needtoknow.htm

National Institute on Aging

- **Stroke** http://www.nia.nih.gov/HealthInformation/Publications/stroke.htm

    Also available in Spanish:

    http://www.nia.nih.gov/Espanol/Publicaciones/FDA/derrame.htm

National Heart Lung and Blood Institute

- **Carotid Endarterectomy (CEA)**

    http://www.nhlbi.nih.gov/health/dci/Diseases/carend/carend_what.html

National Institute of Diabetes and Digestive and Kidney Diseases

- **Diabetes, Heart Disease, and Stroke**

    http://diabetes.niddk.nih.gov/dm/pubs/stroke/#prevent

NATIONAL LIBRARY OF MEDICINE

MedlinePlus – Stroke Section

http://www.nlm.nih.gov/medlineplus/stroke.html

NATIONAL REHABILITATION INFORMATION CENTER

http://www.naric.com/

NATIONAL STROKE ASSOCIATION

http://www.stroke.org

- **Types of Stroke** http://www.stroke.org/site/PageServer?pagename=TYPE
- **Stroke Center Network**

    http://www.stroke.org/site/PageServer?pagename=SCN

    Cornerstone program of the National Stroke Association comprising community and academic hospitals with stroke centers. Education, networking opportunities, and patient education materials are some of the benefits of membership.

- **National Stroke Association Online Learning Center**
  http://www.aheconnect.com/nsa/
  This online learning center provides accredited stroke education on prevention, treatment, and rehabilitation. There are modules for prehospital providers/EMS and nurses.

- **EMS/Prehospital Providers** (education, resources, journals, & publications)
  http://www.stroke.org/site/PageServer?pagename=EMS

- **Medical Professionals** (Professional Membership, Professional Education, Professional Guidelines, Journals, & Publications, Patient Education Resources)
  http://www.stroke.org/site/PageServer?pagename=MEDPRO

- **Stroke Survivors Website**
  http://www.stroke.org/site/PageServer?pagename=SURV

REGIONAL STROKE NETWORKS

Great Lakes Regional Stroke Network
http://glrsn.uic.edu

Tristate Regional Stroke Network
http://www.tristatestrokenetwork.org/

Northwest Regional Stroke Network
http://www.doh.wa.gov/cfh/NWR-Stroke-Network/default.htm

STROKE ALERT
www.strokealert.org

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES: OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION

Healthfinder.gov: Talk with Your Doctor about Taking Aspirin Every Day
http://healthfinder.gov/prevention/PrintTopic.aspx?topicID=10

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area
 http://www.strokecenter.org/prof

The Internet Stroke Center: Patients and Families Area
http://www.strokecenter.org/patients/

WEBMD STROKE HEALTH CENTER
http://www.webmd.com/stroke/default.htm

PARTNERS

The purpose of this section is to recognize those partners who assisted and/or provided resources for the formulation of this toolkit and to identify other organizations whose main purpose is the recognition and appropriate treatment of stroke/TIA. All of these organizations are potential partners for additional stroke information and/or collaborative initiatives.

SPECIAL THANKS

AGENCY FOR HEALTHCARE RESEARCH AND QUALITY
http://www.ahrq.gov/

AMERICAN STROKE ASSOCIATION
www.strokeassociation.org

GREAT LAKES REGIONAL STROKE NETWORK
http://glrsn.uic.edu

THE JOINT COMMISSION
http://www.jointcommission.org

MINNESOTA STROKE PARTNERSHIP
www.mnstrokepartnership.org

NORTH CAROLINA PROGRAM ON HEALTH LITERACY (UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL)
http://nchealthliteracy.org/index.html

NORTHWEST REGIONAL STROKE NETWORK
http://www.doh.wa.gov/cfh/NWR-Stroke-Network/default.htm

TENNESSEE STROKE SYSTEMS OF CARE TASK FORCE

TRISTATE REGIONAL STROKE NETWORK
http://www.tristatestrokenetwork.org/

US DEPARTMENT OF HEALTH AND HUMAN SERVICES, OFFICE ON WOMEN'S HEALTH
http://www.womenshealth.gov/heart-stroke/

THE FOLLOWING PARTNERS HAVE BEEN REPRESENTED ON THE DSSN STEERING COMMITTEE, ADVISORY COMMITTEE, WORKGROUPS, AND/OR PROVIDED TECHNICAL ASSISTANCE TO THE DSSN.

Alabama Department of Public Health

Alabama Neurological Institute

American Heart Association/American Stroke Association

Arkansas Department of Health

Arkansas Foundation for Medical Care

Arkansas Medical, Dental and Pharmaceutical Association

Baptist Health Medical Center - Neurological Program (Arkansas)

Birmingham Regional EMS System

Brookwood Medical Center (Alabama)

Bunkie General Hospital (Louisiana)

Centers for Disease Control and Prevention

Community Health Centers of Arkansas, Inc.

East Jefferson General Hospital (Louisiana)

East Tennessee State University - Department of Public Health

East Tennessee State University - Professional Roles and Mental Health Department

Forrest General Hospital - Neurosurgery Unit (Mississippi)

Genetech, Inc.

Great Lakes Stroke Network (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin)

HealthSouth Kingport (Tennessee)

Jackson National Heart, Lung, and Blood Institute Field Site (Mississippi)

Louisiana Department of Health and Hospitals

Memorial Hospital of Gulfport - Stroke Program (Mississippi)

Minnesota Stroke Partnership

Mississippi State Department of Health

National Stroke Association

Neurology Consultants (Tennessee)

North Mississippi Medical Center - Medicine Service Line Administration

North Mississippi Medical Center - Oncology/GI/GU/Stroke Medical Service Line

Northwest Regional Stroke Network (Alaska, Idaho, Montana, Oregon, and Washington)

Sparks Neurology Center (Arkansas)

St. Thomas Neurology Group (Tennessee)

Tennessee Department of Health

Tennessee Primary Care Association

Tennessee State University - Center for Health Research

Tri-State Stroke Network (North Carolina, South Carolina, Georgia)

University of Alabama at Birmingham - Department of Epidemiology

University of Alabama at Birmingham - School of Public Health/Biostatistics

University of Alabama at Tuscaloosa - College of Medicine

University of Arkansas for Medical Sciences - Center for Distance Learning

University of Arkansas for Medical Sciences - College of Public Health

University of Arkansas for Medical Sciences - Delta Area Health Education Center

University of Arkansas for Medical Sciences - Department of Neurology

University of Louisiana

University of Mississippi Medical Center

University of South Alabama at Mobile - College of Medicine

University of South Alabama at Mobile - Department of EMS Education

University of South Alabama at Mobile - Stroke Center

University of Tennessee Health Science Center - Stroke/Vascular and Critical Care Neurology Dept.

University of Tennessee, College of Medicine

Vanderbilt University Medical Center

ORGANIZATIONS WITH A STROKE FOCUS

ADVANCED STROKE LIFE SUPPORT

http://www.asls.net/introduction.html

AMERICAN ACADEMY OF NEUROLOGY

http://www.aan.com/go/home

AMERICAN ASSOCIATION OF NEUROSCIENCE NURSING

http://www.aann.org/ce/

AMERICAN STROKE ASSOCIATION

http://www.strokeassociation.org

THE BRAIN ATTACK COALITION

http://www.stroke-site.org/

THE BRAIN MATTERS

www.thebrainmatters.org

CARDIOVASCULAR HEALTH COUNCIL

http://www.chronicdisease.org/i4a/pages/index.cfm?pageID=3855

CENTERS FOR DISEASE CONTROL AND PREVENTION: HEART DISEASE AND STROKE PREVENTION PROGRAM

http://www.cdc.gov/stroke

NATIONAL BRAIN ANEURYSM FOUNDATION

www.Bafound.org

NATIONAL INSTITUTES OF HEALTH

National Institute of Neurological Disorders and Stroke

http://www.ninds.nih.gov/disorders/stroke/stroke.htm

NATIONAL STROKE ASSOCIATION

http://www.stroke.org

REGIONAL STROKE NETWORKS

Great Lakes Regional Stroke Network

http://glrsn.uic.edu

Tristate Regional Stroke Network

http://www.tristatestrokenetwork.org/

Northwest Regional Stroke Network

http://www.doh.wa.gov/cfh/NWR-Stroke-Network/default.htm

STROKE ALERT

www.strokealert.org

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE and STROKE CENTER AT BARNES-JEWISH HOSPITAL

The Internet Stroke Center: Professionals and Students Area

 http://www.strokecenter.org/prof

The Internet Stroke Center: Patients and Families Area

http://www.strokecenter.org/patients/

HEART DISEASE AND STROKE PREVENTION PROGRAMS

Alabama, Arkansas, Louisiana, Mississippi, and Tennessee

Linda Faulkner – Arkansas
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Heart Disease and Stroke Prevention
Arkansas Department of Health
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Fax: (501) 661-2070
E-mail: **linda.faulkner@arkansas.gov**
Website:
http://www.healthy.arkansas.gov/programsServices/chronicDisease/HeartDiseaseandStrokePrevention/Pages/default.aspx

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http://msdh.ms.gov/msdhsite/_static/43,0,297.html

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http://www.adph.org/cvh/Default.asp?id=938

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Fax: (615) 532-8478
E-mail: **Debra.Smith@tn.gov**
Website:
http://health.state.tn.us/stroke/index.htm

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Heart Disease and Stroke Prevention
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Phone: (225) 342-8094
Fax: (225) 342-2652
E-mail: **mmarino@dhh.la.gov**
Website:
http://www.dhh.louisiana.gov/offices/?ID=246

EXAMPLES OF STROKE EDUCATION MATERIALS

Brochures

Stroke: Reducing Risk and Recognizing Symptoms (National Stroke Association)

http://www.stroke.org/site/DocServer/Reducing_Risk.pdf?docID=3324

Is it a Stroke? Check these signs FAST! (Massachusetts Department of Health)

http://www.maclearinghouse.com/PDFs/HDSP/HD2101.pdf

Handouts

Let's Talk About Lifestyle Changes to Prevent Stroke (AHA/ASA)

http://www.strokeassociation.org/downloadable/stroke/1219770019473Lifestyle%20Chgs%20to%20Prevent%20Stroke.pdf

Let's Talk About Risk Factors for Stroke (AHA/ASA)

http://www.strokeassociation.org/downloadable/stroke/1219770241917Risk%20Factors%20for%20Stroke.pdf

Posters

Stroke Triage Poster (Delta States Stroke Network)

http://www.deltastatesstroke.net

Available on CD version of this toolkit by clicking **HERE**

Know Stroke (NINDS)

http://stroke.nih.gov/documents/NINDS_KS_SignPoster_LetterSize.pdf

Is it a Stroke? Check these signs FAST! (Massachusetts Department of Health)

http://www.maclearinghouse.com/PDFs/HDSP/HD2102.pdf

Wallet Cards

Know Stroke Information Card (NINDS)

http://stroke.nih.gov/documents/NINDS_KS_WalletCard_3-5x4.pdf

Is it a Stroke? Check these signs FAST! (Massachusetts Department of Health)

http://www.maclearinghouse.com/PDFs/HDSP/HD2107.pdf

Videos

Know Stroke (NINDS)   http://stroke.nih.gov/video/knowstroke.zip

Stroke Symptoms. Act FAST. (National Stroke Association)

http://nsa.convio.net/mov/Women_In_Your_Life.wmv

PSAs

Print PSAs (American Heart Association)   http://psa.americanheart.org/

Cholesterol & Stroke (National Stroke Association)

http://www.stroke.org/site/DocServer/cv_63_8618.wvx?docID=4701

PowerPoint Presentations

Explaining Stroke (National Stroke Association)

http://www.stroke.org/site/DocServer/SAM_Stroke_Community_Presentation_Guide
.ppt?docID=1181

Stroke (Delta States Stroke Network)

http://www.deltastatesstroke.net

Available on CD version of this toolkit by clicking **HERE**

Toolkits

Stroke Awareness and Education Toolkit for Healthcare Providers

http://www.deltastatesstroke.net

Stroke: When Minutes Matter (American Heart Association)

https://www.krames.com/OA_HTML/ibeCCtpItmDspRte_kra.jsp?section=13918&item
=33010&dbprod_prod=zrcaJo-
wSsQaVEOTlZaBgKku:S&dbprod_prod_pses=ZGF678F510C2B878AF0E353D1B2AD22B8
54EB6CBDD3B2A7772739A57CC390533FD7C2F1BF8D7C683FC8869322662E6F71D73B
A6C80B2CB02A727642

Stroke: Patient Education Toolkit (American Heart Association)

https://www.krames.com/OA_HTML/ibeCCtpItmDspRte_kra.jsp?section=13918&item
=33440&JServSessionIdrootistore1=pk37iwkhh1.olbOpR9zagTNr65TrQjGp2TxpQOUol
bOpR9zagTNr65TrQjGp2TxpQOUahmKa30-&dbprod_prod=zrcaJo-
wSsQaVEOTlZaBgKku:S&dbprod_prod_pses=ZGDD4BD43B50FBC75

Stroke

Stroke is a medical emergency!

Any patient, visitor or co-worker may have signs or symptoms of a stroke! If you suspect a stroke, notify EMS/911 immediately outside of the hospital or notify appropriate personnel if you are working in a hospital.

Do not hesitate as time is *critical*!

Signs/symptoms of Stroke:

- Sudden numbness or weakness of the face, arm, or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness or loss of balance or coordination
- Sudden severe headache with no known cause

Remember: Stroke is a medical emergency!
If a patient, visitor or co-worker presents with any of these symptoms, do not hesitate. Act immediately as time is brain!

Delta **S**tates **S**troke **N**etwork

Post Acute Levels of Care for Stroke

INPATIENT REHABILITATION FACILITY (IRF)

Acute rehabilitation patients:
- require 2 or more therapies (PT/OT/SLP)
- have capacity for functional improvement
- have potential to participate in 3 hours of therapy at least 5 days per week
- are medically stable but require 24-hr medical/Rehab Nurse monitoring
- all therapy disciplines available (PT, OT, SLP, BehMed)
- physicians are usually Physiatrists (specialists in Physical Medicine & Rehabilitation), Neurologists or Internists

LONG TERM ACUTE CARE (LTAC)

- patients with acute medical or functional impairments or trauma (pulmonary / ventilator, medically complex, wound care, neuro)
- for longer term medical/surgical cases that are acutely ill and cannot participate in a more intense level of rehabilitation
- therapy services available (PT/OT/SLP)
- any physician specialty may admit patients
- average length of stay > 25 days

TRANSITIONAL CARE UNITS (TCU) OR SKILLED NURSING FACILITY (SNF) PATIENTS

- are medically stable and require skilled or less intense rehabilitation
- physician management available-but not onsite daily
- therapy services available (PT, OT, SLP) up to 5 days per week
- 3 day acute care hospital stay required for Medicare reimbursement
- physicians are typically Internal Medicine or Family Medicine

HOME HEALTH

- patient is homebound except for physician appointments or church
- services available (not necessarily daily) include: nursing, PT, OT, SLP, home health aides, social worker
- any physician may initiate a referral

OUTPATIENT THERAPIES (PT, OT, SLP, BEHAVIORAL MEDICINE)

- for patients able to leave their homes to attend therapies
- therapies are typically 1-3 times per week
- any physician may initiate a referral

American Heart Association | American Stroke Association

Learn and Live ™

Screening Tool for Rehabilitation Services

PHYSICAL THERAPY (PT)

is indicated if there is a decline in:
- lower extremity strength, sensation
- balance, pain
- ability to move in bed
- ability to transfer (sit to stand, supine to sit, etc)
- mobility (walking or propelling a wheelchair)

or if there is:
- recurrent falling
- need for wheelchair assessment/fitting
- lymphedema

OCCUPATIONAL THERAPY (OT)

is indicated if there is a decline in:
- upper extremity strength, sensation
- endurance
- activities of daily living (feeding, grooming, dressing, bathing, toileting)
- functional transfers (tub transfers, toilet transfer)
- home management abilities (cooking, laundry, checkbook skills)
- or if there is need for education in work simplification and/or energy conservation

SPEECH LANGUAGE PATHOLOGY (SLP)

is indicated if there is a decline in:
- communication
- verbal or written expression
- verbal or written comprehension
- speech intelligibility (dysarthria)
- vocal quality (dysphonia)
- memory, thinking skills, or other cognitive abilities
- swallowing (dysphagia)

PSYCHOLOGICAL EVALUATION, NEUROPSYCHOLOGY (PSYCHOLOGY OR BEHAVIORAL MEDICINE)

is indicated if there are issues with:
- cognition (memory, judgment, reasoning, problem solving)
- adjustment to disability
- pain management
- stress management
- mood (depression, anxiety, etc)
- social skills

TENNESSEE STROKE SYSTEMS OF CARE TASK FORCE

DELTA STATES STROKE CONSORTIUM REHABILITATION TASK FORCE