WELCOME TO THE ARKANSAS STROKE REGISTRY

Introduction:

WELCOME to the Arkansas Stroke Registry (Registry)! This document provides background information on the Registry and information on stroke and stroke care. Websites are embedded within the text. Please click on embedded links while holding the "crtl" key; the links can be identified by the underlined blue color letters. The websites include important information that will make your participation in the Registry more productive. Additional resources are also available and will be given to you and your team as needed.

Additional resources include:
- Data entry information
- Tips on maximizing the use of the database
- Pre-hospital strategies and educational support
- Measure adherence strategies
- Strategies to improve dysphagia screening
- Provide the Arkansas Stroke Ready Designation (ArSRH) for qualified hospitals
- Tips and tools to assist the Stroke Team in improving stroke care

Background Information:

1. Arkansas is one of 11 states in the "stroke belt," a term coined by the Centers for Disease Control and Prevention (CDC) for the southeastern states known for having high concentrations of stroke deaths.

2. The Registry is sponsored by the Arkansas Department of Health (ADH) and is a quality improvement (QI) collaborative supporting hospitals in Arkansas. Participation in the Registry offers support for hospitals in improving their processes to provide excellent care to stroke patients. Key partners of ADH include the American Heart Association/American Stroke Association, UAMS IDHI (Institute for Digital Health and Innovation) Stroke Program, Mercy Telestroke, American Data Network and the Arkansas Acute Stroke Care Task Force.

3. The ADH is committed to working with hospitals serving Arkansans through improving patient care. The Registry staff works with hospital providers to collect and use data to assist in celebrating successes and identifying opportunities for improvement. Participation in the Registry is a criterion for a hospital receiving designation from ADH as an "Arkansas Stroke Ready Hospital" (ArSRH).

4. The Registry strives to accomplish the following:

   a. Optimize the quality of stroke care for all Arkansans
   b. Decrease death and disability associated with acute stroke
   c. Increase public awareness of stroke

Contacts:

- ADH provides quality improvement (QI) support to maximize adherence to the performance measures captured in the registry. The primary ADH contact is Dr. Tammie Marshall, DNP, MSN, MHA, RN, CNE, ASLS. Tammie is the Arkansas Stroke Nurse Coordinator and her email address is Tammie.Marshall@arkansas.gov. David Vrudny,

MPH, CPHQ, Section Chief Stroke/STEMI is a secondary contact and may be reached at David.Vrudny@arkansas.gov. Joanne LaBelle, RN, MS, CPHQ, HRM provides technical assistance and QI support for hospitals participating in the REGISTRY and her email address is Joanne.Labelle@arkansas.gov.

- AHA provides assistance on using the *Get With The Guidelines®*-Stroke Patient Management Tool (GWTG-SPMT) for chart abstraction, and data entry, reporting, and analysis and QI. Mary Jo Sikkema is the AHA Quality Systems Improvement Director for Arkansas and may be reached at Mary.Sikkema@heart.org.

- UAMS IDHI Stroke Program/Mercy Telestroke are partners with the ADH and AHA for optimizing stroke patient care and outcomes. Sites participating in the AR SAVES and Mercy Telestroke programs are equipped with telemedicine technology to connect with vascular neurologists 24/7 and receive support and ongoing education. The Director of Operations for UAMS IDHI Stroke Program is Lori Berry, MNSc, RN, CNOR (berrylori@uams.edu). The point of contact for the Mercy Telestroke program is Kris Teed (Kris.Teed@mercy.net).

- American Data Network (ADN) is a contractor for the Arkansas Department of Health to provide chart abstraction assistance into the GWTG Stroke database for qualifying hospitals. Please contact Dr. Tammie Marshall for questions about receiving assistance from ADN.

- Arkansas Acute Stroke Care Task Force (AASCTF) - The General Assembly of the State of Arkansas has long recognized the importance of improving stroke care in our state. In 2005, the legislature passed Act 663, stating that "the citizens of Arkansas are entitled to the maximum protection from the effects of strokes." The bill mandated an Acute Stroke Care Task Force be formed to coordinate statewide efforts to combat the debilitating effects of stroke on Arkansans and make recommendations to the State Board of Health. Please contact David Vrudny with questions about the AASCTF.

- Quintiles/IQVIA is the software company which developed the GWTG-SPMT and provides technical support for the software, including assigning user IDs and resetting passwords. Quintiles/IQVIA customer support may be reached by calling 888-526-6700 and the email address is InfosarioOutcomeSupport@quintiles.com.

Arkansas Department of Health (ADH) Website:

1. The ADH website includes information on a variety of topics, the top tabs include:
   - About ADH
   - Rules and Regs
   - News
   - Resources and Publications
   - A-Z Topics
   - Health Units

2. Click-on "A-Z Topics." Then click-on "s". You will find 2 stroke links.
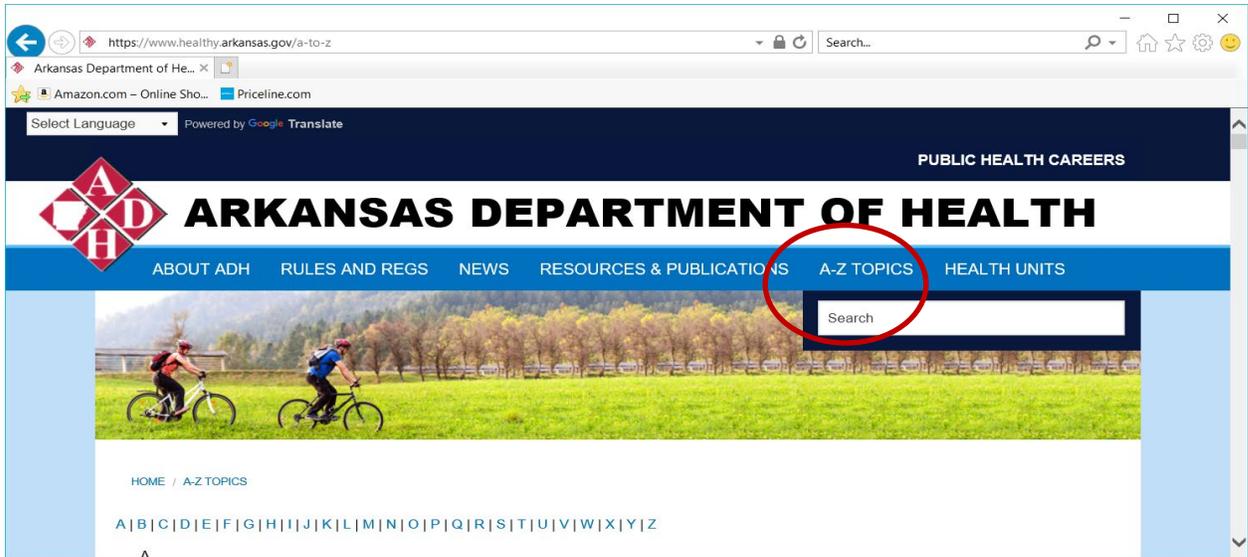
3. By clicking-on "stroke," you will be routed to the stroke section on the website. Clicking on "Stroke Resources" a variety of helpful resources are available.
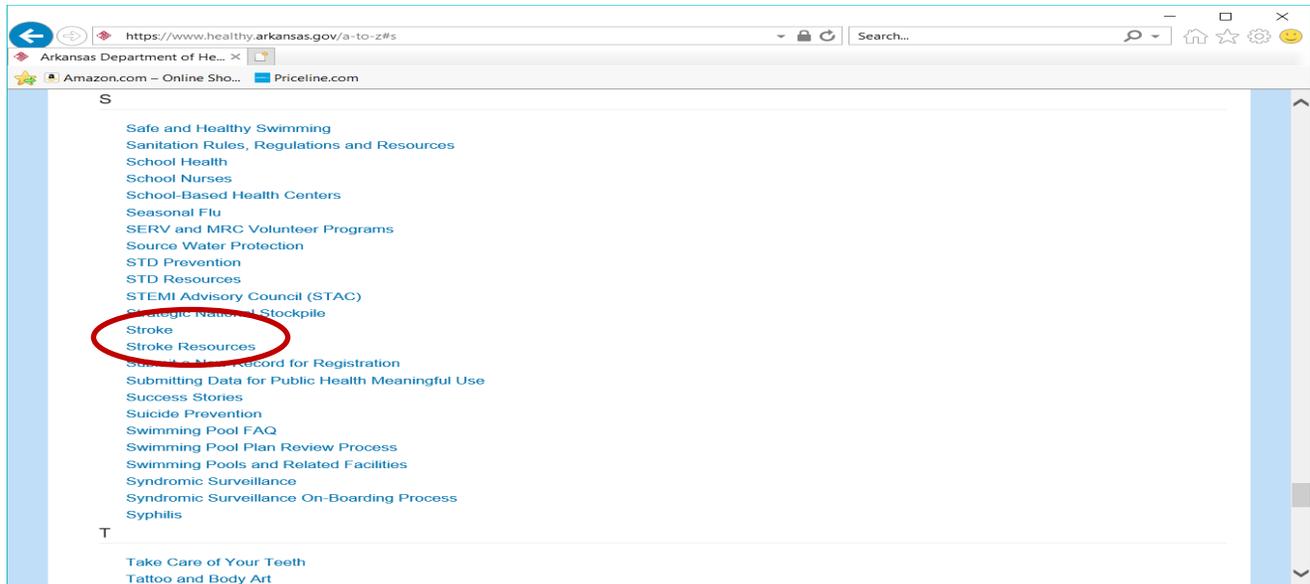
4. Scroll-down to "Initiatives to Improve Stroke Outcomes." In the Arkansas Stroke Registry section, "click here" for information on the Registry program. Once on the Registry section, note the left side navigation tools. The left navigation tool includes:
   - Arkansas Stroke Registry
   - Stroke Registry Participating Hospitals
   - Arkansas Acute Stroke Care Task Force (ASCTF)
   - Arkansas Stroke Ready Hospitals
   - Stroke Resources

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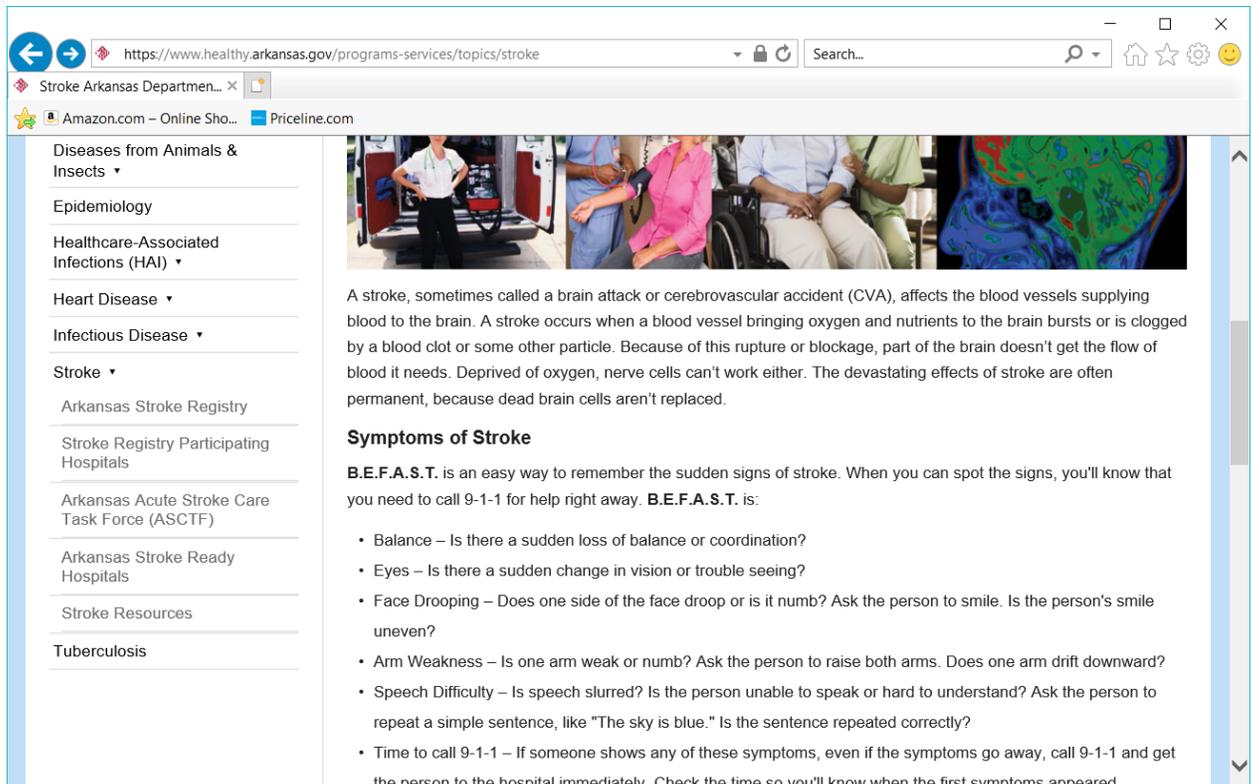
Measures of Success:

Data are collected into the Get With The Guidelines – Stroke Patient Management Tool (GWTG-SPMT) and entered into the Quintiles/Outcome database. As you begin your role as a stroke coordinator, you need access to the database. Even if you do not personally input patient data to the registry, having access allows you to run reports and see the measure descriptions and coding instructions which include measure definitions, inclusions and exclusions. *NOTE: up to 10 employees per hospital may be set up with access to either run performance reports or input patient cases*

"Real-time" aggregate data as well as patient-level data are available immediately after entering the data. There are 10 CDC Consensus Measures identified. These are the primary measures of success. Additional data elements are entered to support the 10 measures as well as to provide information defining care provided to stroke patients. Each hospital can compare its results with the aggregate results of all participating Registry hospitals. To gain access, either contact Mary Sikkema with AHA (Mary.Sikkema@heart.org) or contact Quintiles/Outcome Sciences at either (888) 526-6700 or InfosarioOutcomeSupport@Quintiles.com.

A screen-shot of the GWTG-SPMT log-in screen is provided below. Note the "contact the help desk" link to the right of sign-on. You may request access through that link as well.
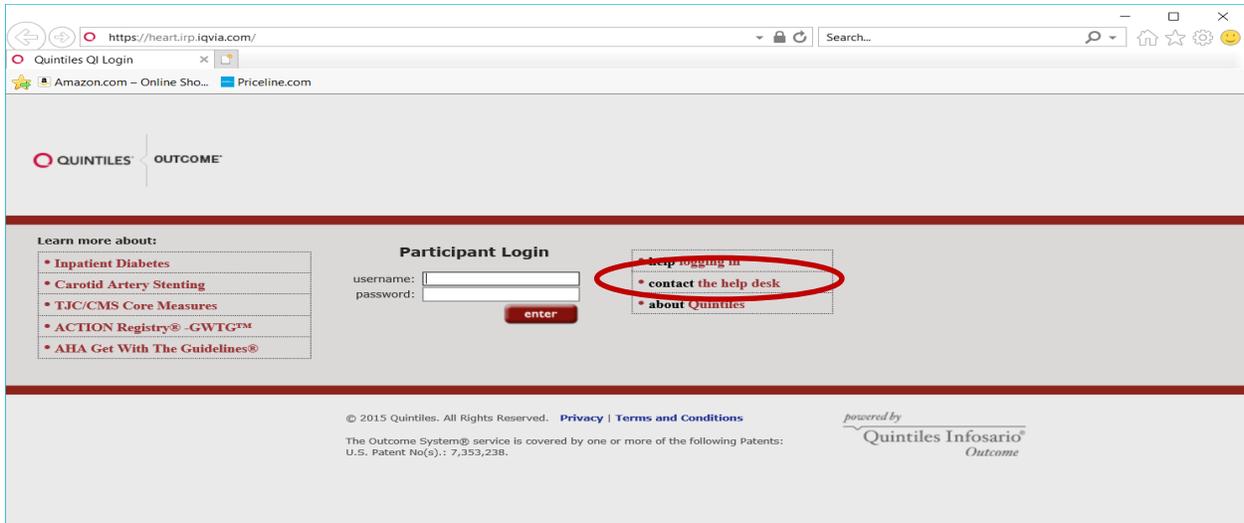
Data may be entered directly into the database. Once entered, if a paper copy is needed, one can be printed. All appropriate hospital staff, providers and physicians designated for access to the data need to get individual usernames and passwords. There is an orientation available as well as other informative instructional videos. If additional assistance is needed related to collecting the data elements, generating graphs, case entry identification, using the PMT, or understanding the coding instructions, contact the ADH staff (contact information above) or the American Heart Association contact.

Arkansas Department of Health Award Criteria: Coverdell Defect Free Care

To receive a stroke care award from the AR Department of Health for the time period July 2021 - June 2022, a hospital must be a stroke designated facility and must perform well with the CDC/COVERDELL Defect-Free Care Measure. Stroke designation may be achieved either through a national accreditation body or from the ADH's Arkansas Stroke Ready Hospital (ArSRH) program. Awards will be provided based on hospital category of designation (Comprehensive Stroke Centers, Primary Stroke Centers, Acute Stroke Ready/Arkansas Stroke Ready Hospitals). Top performing hospitals within each category, based on percentiles, will receive the Defect-Free Care award.

Case Identification and Entry

Identification of patients may be done concurrently or retrospectively. Often a combination of both concurrent and retrospective review is done. At least a partial concurrent review is recommended as the concurrent process allows for addressing care issues while the patient is still hospitalized. A retrospective review is done after discharge. For the retrospective review the patient for entry is typically identified using the coding process. This process provides a list of patients to be reviewed for inclusion into the Registry. Patients on the list may have been missed during the concurrent review process or if a retrospective-only process is used, provides a list of stroke and TIA patients. Included on the website is a list of the diagnosis-related groups (DRGs) used for case identification. Because coding is a financial process, physician documentation supersedes coding. If the physician's documentation does not indicate that the patient's clinical discharge diagnosis is stroke or TIA, the patient does not need to be entered.

A resource on concurrent review and methods of identifying patients appropriate for inclusion into the data base are available. Request the documents from your ADH contact.

REGISTRY Program Guidelines

Abstract, enter and save 100% of patient records as complete within 90 days of patient discharge (either through internal staff or through ADH's external contractor ADN). Included in the database are patients with a final discharge diagnosis of TIA, ischemic stroke, hemorrhagic stroke, and stroke not otherwise specified (NoS). This includes patients transferred to another acute care facility; case inclusion criteria are listed in the GWTG-SPMT Coding Instructions. Please note: patients entered as stroke NoS are rare. This designation is typically appropriate for patients presenting with both a hemorrhagic and ischemic stroke.

Ensure the additional 5 data fields added in July 2018 to GWTG-SPMT are entered as applicable:
- Stroke Band ID
- EMS Agency Name Transporting Patient from Referring Hospital
- EMS Agency Name Transporting Patient to Receiving Hospital
- Hospital name if patient transferred from your ED to another hospital
- Hospital name if patient transferred from another hospital

Ensure that five (5) stroke cases are re-abstracted for patients discharges between July - June annually, either through internal staff or through ADH's contractor ADN. Hospitals that administer tissue plasminogen activator (IV-alteplase) must include at least one IV-alteplase patient record in the re-abstraction sample. If your hospital specified assistance with re-abstractions from the ADH's contractor, your hospital will be contacted to arrange a time to complete this project. If you prefer to complete re-abstractions internally, a secondary abstractor needs to complete the re-abstractions. The secondary abstractor must be identified, and contact information uploaded into the template. NOTE: The updated re-abstraction templates, and other stroke care resources, are posted on the webpage.

Stroke Bands

It is important that your hospital will ensure stroke bands are applied to all confirmed stroke patients and record the stroke band ID in the AR Stroke Registry. NOTE: Bands will be provided by the Arkansas Department of Health. EMS to apply the bands on all suspected stroke cases. If stroke is not confirmed by the hospital the band is to be removed. The hospital will ensure bands are applied to all confirmed stroke cases including POV arrivals. Stroke Band ID is recorded in the ASR. If you need to order more bands please send an email to Stroke.Bands@arkansas.gov and provide the address for which the bands are to be shipped.

Education and Training Support

For training assistance with GWTG-Stroke for (a) inputting stroke patient cases (b) hospital performance reports, contact Mary Sikkema with AHA. The AHA recorded a 1.5 hour training video uploaded to YouTube that you may watch on this web page. The topics of this video are:
- Getting Started: Resources on Your Home Page
    - Navigating the Coding Instructions: Tips and Tricks

- o   Additional Resources
- Patient Grid and Entering a New Patient (Live Demo)
  - o   Initial Patient Population (Inclusion/Exclusion)
  - o   AR Form Group
  - o   Enter a New Patient
- Reports: Navigating the Various Tools
  - o   AHA Award Readiness
  - o   Benchmarking
- Optional Fields: How are These Being Utilized?
- Managing Code Lists: How to Edit Your Drop-Down Lists
- "Hey, I Didn't Know That!"

Education sessions are held during the year. Presentations are provided by AHA, and the Registry staff. Some of the formal presentations offer continuing education credits for pre-hospital providers, RNs and physicians. The educational sessions are open to Stroke Team members and other appropriate hospital and medical staff.

Patient Education Resources:

Patient educational materials are provided by AHA and may be accessed on the AHA or Quintiles/Outcome website.

In addition, the UAMS IDHI Stroke Program is making available free BE FAST stroke education materials. There are many different BE FAST items available such as "brain erasers," pens, bookmarks and many more! To order the materials, please follow these steps:

(1) View this ordering website showing the items that are available: http://arsaves.com/
(2) Email Ms. Olivia Wilson with UAMS IDHI Stroke Program with information on your point of contact person to place orders. This includes the person's full name, email address, phone number and shipping address. Ms. Wilson's email address is: OWilson2@uams.edu
(3) You will receive a confirmation email from Ms. Wilson that you are setup to order materials online. You will then be able to login to the ordering website.
(4) Login to the ordering website and place your order. Ms. Wilson will reply asking what the event will be, the location and expected attendees. Any questions on this process you may either email Ms. Wilson or call her at (501) 615-4697

Stroke Program Assessment:

As a participant in the Registry, the Registry staff may visit your facility to support your efforts and/or conduct an annual stroke program review.

Registry staff may conduct an onsite visit to:
- Meet with the stroke team
- Meet with the physician champion
- Meet with the organization's leadership
- Conduct a mock stroke program review
- Support the coordinator to obtain buy-in for the stroke program
- Assist with obtaining data from Quintiles/Outcome

The annual program review may be done onsite, through tele-conferencing or a conference call. All members of the Stroke Team are invited and encouraged to participate. The annual review process is standardized; however, for newly joined hospital staff the agenda may be adjusted to meet an organization's specific needs.

The goals of an annual review include:
- Discuss the role of the Registry initiative and define the role of each partner;
- Review the 10 CDC consensus measures and related graphs;
- Discuss the successes and challenges related to measure adherence;
- Using comparison graphs for specific measures, identify the hospital's adherence as it relates to Registry participating hospitals;
- Identify opportunities for improvement;
- Discuss Quintiles/Outcome database and the availability of data;
- Identify education and training needs;
- Create an action plan to address the organization's identified challenges as well as the coordinator's education and training needs.

Stroke Continuum of Care:

To facilitate timely stroke care, the pre-hospital phase is critical. The immediate assessment of a stroke patient in the field facilitates timely on-route assessment, hospital pre-notification and care as well as allowing Emergency Department staff to prepare prior to the patient's arrival. The Registry includes pre-hospital providers in its scope. The Registry continues to increase the collaboration between pre-hospital and acute care providers to attain the common goal of improving the care provided to stroke patients.

Hospitals and pre-hospital providers are provided support in community outreach. The purpose of community outreach is to inform the community of the risk factors for strokes and health behaviors to decrease the potential for a stroke. Additionally, newer treatments for stroke as well the need for immediate care in the ED increasing treatment options for patients having a stroke are shared. With the stroke burden in Arkansas, community outreach is important.

Assessing Stroke Severity:

Assessing stroke severity is important. In Arkansas, the pre-hospital providers use the BE FAST (Balance, Eyes, Face, Arm, Speech and Time) scale and report findings to the receiving emergency department (NOTE when completing the electronic patient care record, other nationally recognized stroke scales may be used). The use of this scale in the pre-hospital phase assists in determining if the patient may be having a stroke. The components of the scale collect the important information needed by the ED to diagnosis a stroke and to assess the patient's eligibility for IV-alteplase.

The database collects data on the National Institute of Health Stroke Scale (NIHSS). The NIHSS is a systematic assessment tool providing a quantitative measure of stroke-related neurologic deficit. The scale is widely used as a clinical assessment tool to evaluate the acuity of stroke patients, determine appropriate treatment, and predict patient outcome. The NIHSS can be used as a clinical stroke assessment tool to evaluate and document neurological status in acute stroke patients. Additionally, the stroke scale serves as a data collection tool for planning patient care, provides a common language for information exchanges among healthcare providers and provides severity adjustment for morbidity and mortality review. The

scale is designed to be a simple, valid, and reliable tool that can be administered at the bedside by physicians, nurses or therapists. There are many NIHSS websites and may be helpful as a resource. For additional information, search the web. It is possible for providers to become certified in administering the NIHSS.

Arkansas Stroke Ready Hospitals

To apply for initial designation as an ArSRH, complete this application and provide it to Tammie.Marshall@arkansas.gov and David.Vrudny@arkansas.gov. Facilities designated as ArSRHs can provide time-critical care to the stroke patient, including initial emergency evaluation, real-time stroke assessment, and treatment through telemedicine.

Facilities designated as ArSRHs can provide time-critical care to the stroke patient, including initial emergency evaluation, real-time stroke assessment and treatment through telemedicine. EMS providers screen patients with standardized protocols to effectively recognize a stroke and make sure patients receive the right kind of care.

To apply for re-designation as an ArSRH, the re-designation application must be submitted within 60-90 days of the ArSRH expiration date. Once this application is complete (Arkansas Stroke Ready Hospital Application for Re-designation) provide to Joanne.LaBelle@arkansas.gov. If you wish to request a Microsoft Word version of the corrective action plan to edit, please send your email request to Joanne.LaBelle@arkansas.gov.

Please click here to access a quality improvement support tool for Arkansas hospitals treating acute stroke patients. Facilities designated as an Arkansas Stroke Ready Hospital (ArSRH) are required to meet minimum adherence rates for specific performance measures. As part of the improvement process, the initial decision focuses on the origin of lack of adherence. The reason for lack of adherence may be patient care-related, a documentation issue, or both. This document addresses both potential issues.

In Closing

Again, welcome to the Registry! We are pleased to have you join us! Our goals are to optimize the quality of stroke care and outcomes for all Arkansans and increase public awareness of stroke to improve recognition of this time critical disease as well as the use of 911 when stroke is suspected. By working together, we can optimize stroke care and celebrate success.

Please retain the orientation information for further reference. Feel free to share this information with members of your Stroke Committee, and/or providers caring for stroke patients. If there are additional questions about the Registry program, or, you would benefit from an orientation, contact Dr. Tammie Marshall (Tammie.Marshall@arkansas.gov), David Vrudny (David.Vrudny@arkansas.gov) or Joanne LaBelle (Joanne.LaBelle@arkansas.gov).