The Arkansas Department of Health Arkansas Stroke Ready Hospital Designation Application and Toolkit

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Why Become an Arkansas Stroke Ready Hospital?

Background

The Arkansas Department of Health (ADH) recognizes that all hospitals do not have the capability to be designated by the Joint Commission as certified Stroke Ready, Primary Stroke Center, or Comprehensive Stroke Center. However, by becoming an Arkansas Stroke Ready Hospital (ArSRH), a facility signals to its community that it is committed to provide appropriate acute stroke treatment and have been recognized by the state. An ArSRH can provide immediate and time-critical care to the stroke patient. This includes a comprehensive initial emergency evaluation, screening, stroke scale assessment, and treatment if indicated. This also includes arranging for transfer to a higher level of care for further assessment or additional treatment as needed. Using standardized and evidence-based protocols, an ArSRH provides the optimum level of emergency care to the acute stroke patient. To assist in the evaluation and decision making, ArSRHs must have 24/7 access to neurological services/resources. The neurological provider must either be onsite or accessible through tele-medicine services. For a list of the current ArSRHs and Joint Commission accredited stroke hospitals, please visit the ADH [website](#).

The goal of the Arkansas Stroke Systems of Care model is to provide evidence-based, appropriate, and timely care to every stroke patient in the state. This is accomplished through a multi-faceted approach. Beginning with public education to call 911 immediately for symptoms suggestive of stroke, the hope is to minimize delays in the patient's assessment and care. Through the 911-dispatch center and Emergency Medical Services (EMS) staff protocols, patients are assessed using an approved stroke screen. This allows dispatchers and medics to recognize and respond to possible strokes as a time-critical emergency. Expediting the recognition process supports optimal emergency stroke care. Supporting hospital providers and staff with ongoing training and promoting the use of nationally recognized stroke protocols and processes encourages a timely neurological consultation with an experienced neurologist. An ArSRH demonstrates the required stroke protocols, structures, and processes are in place and effective, and that hospital staff can provide the best possible outcome for the acute stroke patient.

This toolkit is designed to provide hospitals with requirements for earning and retaining their ArSRH designation. It provides medical professionals and hospital administrators with the necessary information to improve their hospital's acute stroke care and become a state stroke designated facility. Each hospital/facility is invited to review the information contained in this toolkit and plan its ArSRH implementation. The ArSRH designation is awarded by ADH.

Note: All UAMS Institute for Digital Health and Innovation (IDHI) Telestroke sites and all Mercy Telestroke sites in Arkansas that have not yet received official ArSRH designation can provide initial acute stroke care and therefore have been provisionally designated as ArSRH. These facilities are encouraged to apply for designation through ADH.

Initial Designation

The purpose of initial designation is to verify the hospital/facility has the systems and processes in place to provide appropriate care to the stroke patient. The re-designation process looks beyond the structure of the stroke program and considers stroke performance measure adherence. Initial designation requires an ArSRH application be submitted to ADH. This application also requires the hospital to provide a list of necessary documents to ADH for verification that their site has these protocols in place. After completing and submitting the ArSRH application and necessary documentation, ADH will conduct a review and schedule a meeting with the facility (may either be virtual or in person.) If successfully designated, the term of designation is three (3) years, after which a re-designation application must be submitted and approved to maintain designation.

Re-Designation

As an ArSRH, there is a minimum acceptable level of measure adherence to specific stroke measures required for successful re-designation. An ArSRH must submit a Re-Designation Application to ADH every three (3) years. Hospitals/Facilities may choose to seek higher levels of stroke designation such as Primary Stroke Center (PSC) or Comprehensive Stroke Center (CSC) offered by The Joint Commission. To begin the re-designation process, the facility must apply and submit the required documentation within 90 days *prior* to the designation expiration date. The application for re-designation is located here. Once ADH receives the application, a review of the document is completed by the audit team. The ArSRH Re-Designation review process does not require an onsite visit, however, ADH reserves the right to perform site visits as needed. Of note, the initial designation as an ArSRH by ADH is a testament to the facility's capacity and capability to provide appropriate stroke care. Re-Designation demonstrates a higher level of adherence to quality and performance measures.

Overview: ArSRH Designation Process

Hospitals/Facilities of any size and location that can meet the required criteria may apply to become an ArSRH and are encouraged to do so. For the initial designation, the facility completes the application and submits all required documentation to ADH. ADH reviews the application for completeness and schedules a visit (either virtually or in person.) If all criteria are met, the facility earns designation. During an ADH designation meeting, the organization's readiness to become an ArSRH is evaluated. Upon completion of the meeting, ADH reviews its findings with the facility's administration or designated representative.

Successful applicants receive a letter from ADH identifying that the facility has met ArSRH requirements and earned the designation. ADH will provide a press release template that may be customized as needed for the facility to use to inform their local community.

If the facility does not meet the requirements for designation, a Corrective Action Plan (CAP) may be required. The stroke team creates a plan to address areas that require improvement, and the action plan is submitted to ADH for review. Once the CAP is deemed acceptable by ADH, the program is then ready for a follow up review. At that time, ADH will require a status

update meeting and may possibly perform another meeting if needed to verify deficiencies have been corrected.

ADH contacts for initial and re-designation:

Initial Designation

Lindsay Sterling Graves, RN, BSN
ADH Stroke QI Nurse Coordinator
Lindsay.Sterling@Arkansas.gov

David Vrudny, MPH, CPHQ
ADH Section Chief, Stroke and STEMI
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Re-Designation

Joanne LaBelle, RN, MS, CPHQ, HRM
ADH Stroke QI Nurse Contractor
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Preparing for Designation/Re-Designation

EMS: Education

One of the most critical elements of pre-hospital stroke patient care is provider education and rapid symptom identification. Advances in stroke treatment have vastly improved stroke survival rates over the past several years. Intravenous thrombolytic therapy reduces the risk of death and permanent disability if administered within specific times from the patient's last known well time. Recent evidence suggests that intra-arterial interventions demonstrate even further reduction in post stroke complications and disability. Therefore, it is imperative that all pre-hospital healthcare providers possess the skills to quickly recognize symptoms of stroke. To optimize the stroke system of care, it is important that hospitals collaborate with their pre-hospital providers to conduct ongoing education and develop protocols for use in the pre-hospital setting.

EMS: Pre-hospital Care Considerations

As we know, acute stroke care is time sensitive. When patients are transported by EMS, early recognition of stroke-like symptoms in the field and pre-notification to the hospital is important to increase the patient's outcome and chance of survival. EMS should:

- Recognize stroke signs and symptoms and have a protocol to encourage rapid recognition. This protocol should also include the vague symptoms that may not be immediately identified as stroke symptoms.
    - Sudden mental status change
    - Sudden gait disturbance
    - Sudden speech disturbance
    - Sudden vertigo
    - Sudden diplopia
    - Sudden headache
    - Sudden limb weakness/fall
    - Sudden numbness/tingling
    - Sudden syncope
    - Sudden weakness
- Define the process for identifying possible stroke patients using an accepted stroke assessment scale. In Arkansas, BE FAST (Balance, Eyes, Face, Arm, Speech, Time) is the recommended pre-hospital/hospital stroke scale.
- Assess for stroke by ruling out other potential diagnoses like hypoglycemia. A blood glucose must be performed on every suspected stroke patient because it is the most common stroke mimic and can be easily treated in the field.
- Obtain a brief medical history particularly asking about previous seizures, head trauma, cardiac arrhythmias, recent/current bleeding disorders, surgery, trauma, invasive procedure, or pregnancy. Try to find out the patient's last known well time and date if possible.
- Transport the patient per protocol to the nearest ED that can assess and treat for stroke. Pre-notify the facility to activate "Code Stroke" and document the time of the call. Place a

stroke band on the patient and document the unique stroke band identification in the patient's record.

Hospital: Emergency Care Considerations

Timely ED care is crucial for survivability and decreased disability after a stroke. EDs are expected to develop a CODE STROKE alert and response protocol. This process should meet the needs of the patient and the facility. Some facilities have a partial code and a full code stroke process. The process is defined by the staffing within the ED and their resources available to treat the stroke patient. When EMS pre-notifies that a suspected stroke patient is enroute, the ED nurse or physician calls the code stroke to initiate the defined protocol.

Telemedicine services are a significant component of stroke care for many hospitals in Arkansas. Because of the need for expediting the telemedicine consult, consider the following:

- Determine the timeline for making the initial call about the suspected stroke patient.
- Create a description of the patients that are appropriate for a consult. Example, is telemedicine used for all possible stroke patients, or only for patients that present within a specific timeframe from their last known well (LKW) time?
- Decide on the specific roles and responsibilities of the ED staff.
- If a hybrid model is used, break down the hours, circumstances, need for telemedicine coverage, and process to secure that coverage, etc.
- Obtain the consult report from the telemedicine provider and make it a part of the patient's medical record. Be sure to document the National Institute of Health Stroke Scale (NIHSS) in the patient's record as well as the decision for thrombolytic therapy. If the patient is not eligible or appropriate for thrombolytics, the reason must be documented by a physician. If documented on the telemedicine consultation report and if the report is part of the patient's record, it can be used for data collection.

To decrease the potential for technical issues, the CODE STROKE protocol should address the following:

- Define the connectivity process as part of the ED nurse and physician orientation and ongoing education.
- Document equipment checks documented shift/day.
- Document mock codes at a specified frequency.
- Create alternative process for technology failure.
- Create emergency process to address unresolved delays.

IV thrombolytics can be lethal if administered to patients suffering a brain hemorrhage or other contraindications. Every suspected stroke patient must undergo an immediate Computerized Tomography (CT) scan prior to receiving any thrombolytics. Include strategies to expedite the suspected patient to CT by incorporating the following as appropriate:

- Determine a "straight to CT" process as part of the CODE STROKE protocol. Some facilities have EMS staff stop in the ED to have a provider assess if the patient is stable

enough to transport directly to CT. Once given the provider's approval, EMS and ED staff continue with the patient on the EMS stretcher directly to CT. Other facilities have EMS staff to go straight to CT without stopping for additional assessment in the ED.

- For patients arriving by privately owned vehicle (POV), design a straight to CT process that is similar. Consider training registration and triage staff the BE FAST stroke scale and include the scale into the triage/registration process. If the staff identifies a possible stroke, have the triage/registration staff call a CODE STROKE, prompting a rapid response and transport straight to CT if indicated.

Perform the NIHSS as part of the suspected ischemic stroke patient's initial assessment. A NIHSS must be completed and documented on every patient even if they are outside of the thrombolytic therapy treatment window. The NIHSS may be conducted by the RN, ED physician, or telemedicine provider. It is recommended that the nurse/ED provider conducting the NIHSS be certified, either through hospital process or an online certification.

Evaluate the patient for IV thrombolytic therapy. This is critical for timely administration, increased favorable outcomes, and decreased complications and disability. The patient's LKW time, CT results, lab results, NIHSS, patient history, current medications, health status, and surgical history must be reviewed quickly. If the physician finds patient-related contraindications or warnings that render the patient ineligible, the provider must document why. If the patient is eligible for IV thrombolytics, the patient/family must consent to treatment. If treatment by IV thrombolytic is appropriate and consented, have the patient's nurse conduct a "time out" or shout out the time that the medication is initiated so that it is easily documented by all.

Conduct a dysphagia screen. Until the suspected or diagnosed stroke patient's ability to swallow is assessed and documented, the patient MUST remain on strict NPO, including any oral medications. Define a reasonable and effective screening process for your facility. Consult a Speech and Language Practitioner (SLP) to approve the screening process if applicable to the facility. Always institute a nurse-driven protocol. Include strategies to institute a nurse-driven protocol:

- Determine if there is a swallow/dysphagia screen already in place at the facility. Don't feel like you need to re-invent the wheel. Verify with ICU, PACU, nursing services, etc. to see if the policy already exists. If no policy exists, reach out to ADH or other facility and request a copy of their process. Review the dysphagia/swallow screen and modify as needed to meet the needs of the facility. Be sure to incorporate language that your nursing staff is already familiar with.
- Build a list of neurological symptoms into the electronic medical record (EMR) and have the questions require a yes/no answer. This way, the nurse must select any/all symptoms that the patient is exhibiting. If the nurse selects ANY of the symptoms in the list, require a dysphagia/swallow screen prior to administering anything by mouth. The dysphagia/swallow screen is valuable for other patients that enter the ED. This will facilitate capturing all patients that should be screened as well as patients not immediately identified as stroke patients.
- Require the dysphagia/swallow screen to be conducted as part of the initial ED nurse's assessment. The longer the screen is delayed, the more likely that the screen will be missed/omitted. If the patient cannot participate in the screen, they fail and must be

maintained on strict NPO. Initiate SLP consult if available. As soon as the patient can participate in the screen, have the nurse/SLP conduct and document the findings.

- Create the protocol with "yes" and "no" questions so that the "no" responses indicate difficulties in the swallowing process. If during the screen the response is "no," stop the screen and place the patient on NPO until a full SLP swallow assessment is completed. If the patient passes the questions, consider giving the patient a teaspoon of water. If no difficulty, give the patient puree/full liquids or 3 ounces of water without a straw. If the nurse observes any hoarseness, sneezing, coughing, nasal discharge, return the patient to strict NPO and document.
- Build the dysphagia screen into the EMR and include a space for the nurse to document the time the screen was *actually* completed. Include a statement in the dysphagia screen with a "yes" or "no" response that must be selected by the nurse. Example: "The patient was maintained on strict NPO status until the screen was completed." If the screen does not have the above trigger and facility policy allows, an addendum note may be appropriate if the nurse forgets to document the time of the screen.

Include a transfer agreement in the stroke protocol. For many rural facilities, a transfer to a higher level of care may be required. To expedite transfers, consider the following:

- Execute a transfer agreement with another facility that can provide a higher level of care. This transfer agreement would be appropriate for patients needing post-thrombolytic administration monitoring, post-thrombolytic complications, neurosurgical intervention, mechanical thrombectomy, additional monitoring, or other surgical intervention.
- Ensure the transfer agreement addresses immediate transfers that meet acute stroke time treatment targets.
- Identify delays in the transfer process by listing the steps and times required to prepare the patient. TIME IS CRITICAL and each step in the process should be listed in the typical order completed.

<u>Quality Improvement Strategies</u>

Community Outreach

Community outreach is critical. Providing information to the public, the patient, and caregivers to identify the signs of stroke and the importance of calling 911 immediately is necessary to optimize the stroke systems of care. To facilitate a successful outreach program, it is important to create an annual action plan.

Community outreach content can include:

- Stroke risk factors
- Stroke prevention measures
- Recognition of stroke signs/symptoms
- BE FAST
- Treatment of stroke
- Importance of EMS transport

Methods of community outreach can include:

- Newsletter/mailings
- Newspaper public service announcement
- Community health fairs
- Presentations at schools, retirement homes, churches
- Materials provided at flu or blood pressure clinics
- Education provided to area providers
- Stroke survivor speaker
- Social media

QI Strategies for Improvement

A QI guide has been developed and is available for Arkansas hospitals that treat acute stroke patients. Facilities designated as an ArSRH that are applying for re-designation are required to meet minimum adherence rates for specific stroke performance measures. As part of the QI process, the initial re-designation decision focuses on the origin for lack of adherence. The reason for lack of adherence may be patient care related, documentation errors, or both. This QI guide assists with addressing areas that require improvement. To request a copy of the QI guide or for any other questions, please contact the ADH Stroke Registry program staff.

Arkansas Stroke Ready Hospital (ArSRH) Initial Designation Application and Checklist

Hospital Name:	Hospital Address:
Administrator Name:	Number of Licensed Beds:
Stroke Coordinator Name:	Stroke Coordinator Phone #:
Stroke Coordinator Email Address:	Date of Application: Electronic Signature of Authorized Hospital Signatory

The responses to these questions and any data will be used exclusively for state performance improvement purposes. Please direct any questions to the ADH Stroke Program. Send completed application and supporting documents to Lindsay.Sterling@Arkansas.gov.

ArSRH Initial Designation Application and Checklist	Yes	No
1. **Is the ED staffed with an RN 24/7?** Please include a copy of the call roster/schedule for the previous calendar month.		
2. **Is there a designated stroke coordinator/facilitator?** Please include a brief description of the role and function.		
3. **Is the ED staffed with a Physician 24/7?** Please include a copy of the call roster/schedule for the previous calendar month.		
4. **Is the ED staff trained to use a standardized stroke severity assessment tool?** Please include a copy of the tool and most recent training log.		
5. **Does the facility use a standardized acute stroke protocol?** Please include a copy of the most recent protocol.		
6. **Are IV thrombolytics available?** Please include documentation verifying availability i.e. formulary list.		
7. **Does the facility have a transport protocol with contingency plan for inclement weather, diversion, etc.?** Please include a copy of the most recent protocol.		
8. **Is there a Provider/Neurologist (Telestroke is acceptable) available 24/7 trained to treat ischemic stroke?** Please include a copy of the provider call roster/Telestroke agreement for the previous calendar month.		
9. **Does the facility have CT and interpretation availability within 45 minutes of patient arrival?** Please include documentation verifying availability for the previous calendar month.		
10. **Is the facility staffed with laboratory 24/7?** Please include a copy of the staff roster/schedule for the previous calendar month.		
11. **Are the following test results available with 45 minutes of patient arrival?** Please provide documentation verifying lab results were available within 45 minutes of arrival for the previous calendar month. • **CBC** • **BMP** • **PT/PTT/INR**		

Examples of supporting documents to include with your application can be found here:
https://www.healthy.arkansas.gov/images/uploads/pdf/Arkansas_Stroke_Ready_Hospital_Attachment_Examples_9-15-2021.pdf