Piney Woods Regional Advisory Council

Regional Advisory Council – RAC-G

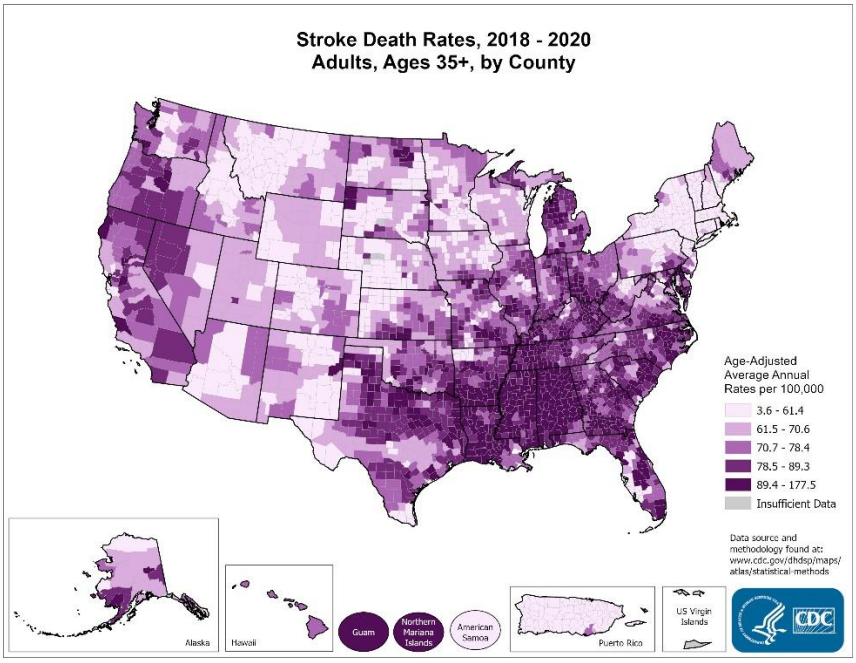
Regional Stroke Plan

Regional Advisory Council – TSA – G
100 E. Ferguson Street, Ste. 708
Tyler, TX, 75702

RAC-G serves the counties of Anderson, Camp, Cherokee, Freestone, Gregg, Harrison, Henderson, Houston, Marion, Panola, Rains, Rusk, Shelby, Smith, Trinity, Upshur, Van Zandt, Wood

INTRODUCTION

Stroke remains a major healthcare problem in the United States, and the human and economic toll are staggering. Over 795,000 strokes occur annually in the United States. Stroke is the fifth leading cause of death and the leading cause of long-term disability. More than 75% of strokes are first time events, therefore, risk reduction and effective stroke prevention remains the best treatment for reducing the burden of stroke.



MISSION

The mission of RAC-G is to facilitate the coordination of stroke providers to ensure the most efficient, consistent, expeditious, effective, innovative and fiscally responsible care for every individual who experiences an acute stroke by developing, implementing, and maintaining integrated processes in stroke prevention, education and comprehensive stroke care to reduce mortality and morbidity in the region.

VISION

RAC-G will provide leadership within our region, state and nation regarding the care of stroke patients to minimize mortality and morbidity associated with cardiovascular disease.

GOALS

1. Establish a system of coordination relating to access, protocols/procedures, and referrals.
2. Establish continuity and uniformity of care among stroke providers.
3. Promote internal communication for system communication among ground EMS, air medical and hospital members.

HOSPITALS IN RAC-G WITH CERTIFICATION

Comprehensive (CSC): Level 1

CHRISTUS Trinity Mother Frances – *Tyler*
UT Health – Tyler

Advanced (TSC): Level 2

None currently

Primary (PSC): Level 3

CHRISTUS Good Shepherd – Longview
Longview Regional Medical Center

Acute Stroke Ready: Level 4

CHRISTUS Trinity Mother Frances – *Jacksonville*
CHRISTUS Trinity Mother Frances – *Winnsboro*
UT Health – Athens
UT Health – Pittsburg
UT Health – Quitman

Other Hospitals Within the RAC That Can Provide Emergent Stroke Care Including Thrombolytics:

Freestone Medical Center
Palestine Regional Medical Center

REQUIREMENTS FOR TEXAS STROKE CENTER DESIGNATIONS

1. Per The Governor's EMS and Trauma Advisory Council (GETAC) Stroke Committee of the Department of State Health Services (DSHS) and the DSHS website: On February 17, 2022, updated stroke designation rules went into effect. Stroke rules were legislated in 2005, when Senate Bill 330 was passed during the 79th Legislature. The purpose of the bill was to develop a state emergency stroke treatment system. This allows responders to identify and transport a person with acute stroke signs and symptoms to an appropriate designated facility. The hospital designation requirements were established to ensure prompt and appropriate treatment for possible stroke victims.

The stroke requirements now include an Advanced Stroke Center designation which differentiates hospitals that can provide thrombectomy procedures but are not a Comprehensive Center.

The four levels of stroke designation are:

1. Level I – Comprehensive
2. Level II – Advanced
3. Level III – Primary
4. Level IV – Acute Stroke Ready

B. Each center applying for state Stroke Center designation shall meet the following criteria:

1**. Level 1**: Comprehensive Centers (CSCs) will meet the requirements specified in the Consensus Statement of Stroke on Comprehensive Stroke Centers. (Recommendations for comprehensive Stroke centers: a consensus statement from the Brain Attack Coalition. Stroke. 2005; 36(7):1597-616. These include, but are not limited by, the following specifications:

a. A 24/7 stroke team capability as defined herein plus all the requirements specified for a Primary Stroke Center

b. Personnel with expertise to include vascular neurology, neurosurgery, neuroradiology, interventional neuroradiology/endovascular physicians, critical care specialists, advanced practice nurses, rehabilitation specialists with staff to include physical, occupational, speech, and swallowing therapists, and social workers.

c. Advanced diagnostic imaging techniques such as magnetic resonance imaging (MRI), computerized tomography angiography (CTA), digital cerebral angiography and transesophageal echocardiography.

d. Capability to perform surgical and interventional therapies such as stenting and angioplasty of intracranial vessels, carotid endarterectomy, aneurysm clipping and coiling, endovascular ablation of AVM's and intra-arterial reperfusion.

e. Supporting infrastructure such as 24/7 operating room support, specialized critical care support, 24/7 interventional neuroradiology/endovascular support, and stroke registry

f. Educational and research programs

2. **Level 2**: Advanced Stroke Centers according to the Guidelines outlined by DSHS are as follows: (Advanced (Level II) Stroke Designation Department Approved Guidelines (texas.gov)

a. A 24/7 stroke team capability plus all the requirements specified for a Primary Stroke Center
b. Personnel with expertise to include physicians with neurology and critical care experience, neuroradiologists, neurosurgery, occupational, physical and speech therapists, social workers and case managers to name a few.

c. Brain imaging capabilities and interpretation available 24/7.

d. Capability to perform advanced procedures including clipping, coiling, angioplasty or rapidly transfer to a facility that offers these procedures.

e. Supporting infrastructure including stroke database, QAPI program, operating rooms, and 24/7 patient support available.

f. Education

3.**Level 3**: Primary Stroke Centers ("PSCs") will meet the requirements specified in "Recommendations for the Establishment of Primary Stroke Centers, JAMA 2000 June 21; 283 (23):3125-6." They will be able to deliver stroke treatment 24/7. These include, but are not limited by, the following specifications:

a. 24-hour stroke team

b. Written care protocols

c. EMS agreements and services

d. Trained ED personnel

e. Dedicated stroke unit

f. Neurosurgical, Neurological, and Medical Support Services

g. Stroke Center Director that is a physician

h. Neuro imaging services available 24 hours a day

i. Lab services available 24 hours a day

j. Outcomes and quality improvement plan

k. Annual stroke CE requirement

l. Public education program

4. **Level 4**: Acute Stroke Ready Facilities provide timely access to stroke care but may not be able to meet all the criteria specified in the Level 1(CSCs) Level 2 (ASCs), or Level 3 guidelines. They are required to:

a. Develop a plan specifying the elements of operation they do meet.

b. Have a higher level of care center that agrees to collaborate with their facility and to accept their stroke patients where they lack the capacity to provide stroke treatment.

c. Identify in the plan the higher level of care center that has agreed to collaborate with and accept their stroke patients for stroke treatment therapies the acute stroke ready facility is not capable of providing

d. Obtain a written agreement between the higher-level Stroke Center with their facility specifying the collaboration and interactions.

e. Develop written treatment protocols which will include at a minimum:

1. Transport or communication criteria with the collaborating/accepting higher level facility

2. Protocols for administering thrombolytics and other approved acute stroke treatment therapies.

f. Obtain an EMS/RAC agreement that:

1. Clearly specifies transport protocols to the Acute Stroke Ready facility, including a protocol for identifying and specifying any times or circumstances in which the center cannot provide stroke treatment; and,

2. Specifies alternate transport agreements that comply with GETAC EMS Transport protocols.

g. Document ED personnel training in stroke.

h. Designate a stroke director (this may be an ED physician or non-Neurologist physician)

i. Employ the NIHSS for the evaluation of acute stroke patients administered by personnel holding current certification

j. Clearly designate and specify the availability of neurosurgical and interventional neuroradiology/endovascular services.

k. Document access and transport plan for any unavailable neurosurgical services within 90 minutes of identified need with collaborating higher level Stroke Center.

An additional resource for care of the stroke patient: Guidelines for the Early Management of Patients With Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association | Stroke (ahajournals.org)

REGULATORY AGENCIES AND GUIDELINE RESOURCES FOR STROKE CARE

1. The Joint Commission (Login | The Joint Commission)
2. GETAC Stroke Committee (GETAC- Stroke Committee | Texas DSHS)
3. Texas EMS Trauma and Acute Care Foundation (TETAF) (TETAF - Ensuring Quality Hospital Care - TETAF)
4. American Heart Association/American Stroke Association (American Stroke Association)
5. Brain Attack Coalition (Brain Attack Coalition | National Institute of Neurological Disorders and Stroke (nih.gov))

TRANSPORT DECISIONS

Transport decisions should be based on the established last known well time. RAC-G has adopted the RACE+ Large Vessel Occlusion assessment scale currently to help with transport decision making as well. Consider Air Medical transport as well for all emergent transports and transfers to decrease transport time.

Public Awareness: The pre-hospital and hospital should participate in regional stroke awareness campaigns and other public education activities regarding stroke prevention

and care. All RAC-G members should actively initiate and promote stroke prevention activities within their communities.

Pre-hospital Triage and Treatment

Goal – Patients will be identified, rapidly and accurately assessed, and based on identification of their actual or suspected onset of symptoms, should be transported to the nearest appropriate stroke facility. The facility should be notified as soon as feasible to allow the facility to prepare for the patient's arrival which will greatly reduce the door-to-intervention time.

Purpose – Appropriate identification of the stroke patient will ensure that the patient be delivered to the appropriate facility. Notification of the facility will allow proper preparation to reduce the wait time for the patient. Use of any approved stroke assessment (RACE+) will assist the pre-hospital provider in determining the patients need and facility destination decision. Each provider needs to determine what assessment criteria they will utilize, and each staff member should be trained on its appropriate use as to understand the findings rendered.

System Triage

Goal – Refer to the EMS Acute Stroke Routing from AHA/ASA below for guidance. Consider what the needs of the patient may be as well transport time while keeping in consideration last known well time.

Air Medical Transport Activation

Goal – Air medical transport resources will be appropriately utilized to reduce delays in providing exceptional stroke care. All Code Stroke transfers should consider flight when available to improve patient outcomes. Also consider utilizing flight to take Code Stroke patients outside of the thrombolytic window directly to a Level 1 or Level 2 facility if patient is positive on the RACE+ scale.

Hospital to Hospital Transfers

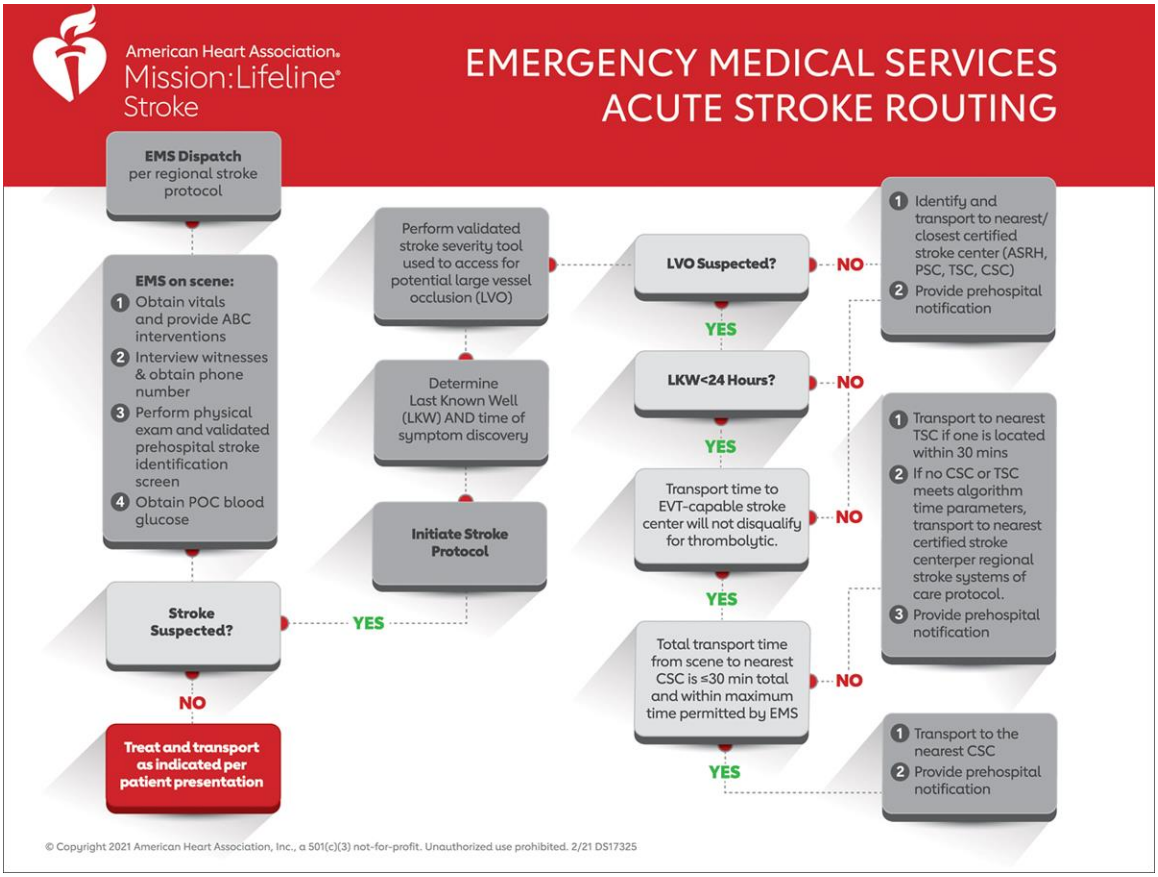
Goal – The goal of establishing, implementing and maintaining a facilities hospital to hospital transfer plan is to ensure that those stroke patients requiring additional or specialized care and treatment beyond a facility's capability are identified and transferred to an appropriate facility as soon as possible and with as little delay as humanly possible.

Objectives –

a. To ensure that all regional hospitals make transfer decisions based on standard definitions which classify stroke patients according to adopted facility triage criteria.

b. To identify stroke treatment and specialty facilities within the area.

c. To establish treatment and stabilization criteria and acceptable time guidelines for hospital-to-hospital transfer acceptance of the patient



[Recommendations for Regional Stroke Destination Plans in Rural, Suburban, and Urban Communities From the Prehospital Stroke System of Care Consensus Conference: A Consensus Statement From the American Academy of Neurology, American Heart Association/American Stroke Association, American Society of Neuroradiology, National Association of EMS Physicians, National Association of State EMS Officials, Society of NeuroInterventional Surgery, and Society of Vascular and Interventional Neurology: Endorsed by the Neurocritical Care Society | Stroke (ahajournals.org)]

Completed and proposed by Jennifer Burwell, RAC-G Stroke Committee Chair 12/2023
Approved by RAC-G Stroke and Cardiac Committee 01/2024

Edited: