REGIONAL STROKE SYSTEM PLAN

Endorsed by SETRAC Board of Directors
Date: 10/17/2022

Approved by SETRAC Stakeholders
Date: 7/27/2022

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SETRAC serves the counties of Austin, Colorado, Fort Bend, Harris, Matagorda, Montgomery, Walker, Waller, and Wharton.

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INTRODUCTION

MISSION

The mission of the Southeast Texas Regional Advisory Council (SETRAC) Stroke Committee is to facilitate coordination of stroke providers to promote the most efficient, consistent, and expeditious care of each individual who experiences an acute stroke by developing and maintaining integrated quality processes in stroke patient care and public education.

VISION

SETRAC will provide leadership within TSA Q through a stakeholder coalition supported by resources which will develop, operate, evaluate, and integrate a regionalized stroke system of care.

ORGANIZATION

SETRAC provides the infrastructure and leadership necessary to sustain a stroke treatment and transfer system within the designated nine-county region and works to improve the level of care provided to persons living or traveling through this region. Together, through the work of designated standing committees, SETRAC member organizations (hospitals, first responder organizations, EMS providers, air medical providers, emergency management, public health, etc.) collaborate to assure that quality care is provided to stroke patients by pre-hospital and hospital care professionals. SETRAC will provide stroke and public awareness education to the people of the region, and stroke education to healthcare providers in each of the nine counties it serves.

REGIONAL PLAN

This plan has been developed in accordance with generally accepted stroke guidelines and procedures for implementation of a comprehensive Emergency Medical Services (EMS) and Stroke system plan. This plan does not establish a legal standard of care, but rather is intended as an aid to decision-making in stroke patient care. It is not intended to supersede the physician's prerogative to order treatment.

STROKE SYSTEM OF CARE GOALS

The purpose of the SETRAC Stroke Committee is to facilitate the development, implementation, and operation of a comprehensive stroke system based on accepted, evidence-based standards of care to decrease morbidity and mortality related to stroke. SETRAC will solicit participation from health care facilities, organizations, entities, and professional societies involved in health care. SETRAC will encourage

multi-community participation in providing stroke care, work to promote improvement of facility services, and cooperate with all member entities, agencies, and organizations in the establishment of an efficient and effective system of stroke care. SETRAC will develop a plan for a regional comprehensive stroke system that meets the requirements of the Texas Department of State Health Services (DSHS).

- Identify and integrate resources to foster commitment and collaboration in developing a regional stroke system of care.
- Identify strategies to promote EMS provider participation in the stroke system of care.
- Establish system coordination relating to access, protocols/ procedures, and referrals. This coordination is intended to establish continuity and uniformity of care among the providers of stroke patient care.
- Promote internal communication as the mechanism for system coordination. This communication will include stakeholders such as EMS providers, hospitals, and members of the SETRAC Stroke Committee.
- Create system efficiency through continuous quality improvement processes to develop standardization and uniformity in approaches to stroke patient care.

RECOGNITION OF STROKE FACILITIES

Texas DSHS Stroke Center Designations

SETRAC supports the DSHS system by which hospitals may seek state designation as a stroke facility. SETRAC will not designate stroke facilities at any level but may set minimum standards for participation in TSA Q's Stroke System of Care.

- A facility interested in seeking state designation as a Stroke Center (Level I, II, or III) must apply to the Texas Department of State Health Services (DSHS).
    -The application will include a Letter of Participation from SETRAC.
    -The application will also include additional documentation as defined by Texas DSHS.
- SETRAC participation requirements specific to stroke facilities include, but are not limited to:
    o Payment of dues as a designated stroke center.
    o Participation in SETRAC—6 annual meetings with at least 3 being stroke committee meetings
    o Submission of stroke data to SETRAC on a quarterly basis.
    o Compliance with all rules established by the SETRAC Board and the Stroke Committee (with approval by the SETRAC Board.)

NOTE: Any facility that does not meet participation requirements of the above-mentioned committees and misses two fiscal quarters of data submission will be deemed "Not participating with SETRAC" and arrangements will need to be made on an individual basis between the facility and SETRAC in relation to any discrepancies.

Notification Requirements

Designated stroke facilities failing to meet and/or maintain critical essential criteria outlined below shall provide notification within 5 days to SETRAC, EMS providers, and the healthcare facilities from which it receives stroke transfers. Failure to meet the following essential criteria (as defined by DSHS) must be reported:

- Neurosurgical capabilities (Level 1)
- Neuro-Interventional capabilities (Level 1)
- Neurology capabilities (Level 1, Level 2)
- Anesthesiology (Level 1)
- Emergency physicians (All levels)
- Stroke Medical Director (All levels)
- Stroke nurse coordinator/program managers (All levels)
- Stroke Registry (All levels)

If the facility chooses to relinquish or change its stroke designation, it shall provide at least 30 days notice to the SETRAC and DSHS offices.

"Currently Seeking"

SETRAC desires to recognize and communicate with EMS agencies the names of hospitals that are seeking designation as a designated stroke center. Any acute care facility may seek recognition as "Currently Seeking" by submitting to SETRAC a letter of intent from the CEO of designee and providing a presentation to the Stroke Committee showing how they meet the essential criteria established by DSHS for the designation level for which the facility has applied. Utilization of hospitals in the "currently seeking" category shall be decided by EMS agencies.

Once SETRAC receives official notice from DSHS that the hospital has been designated, the EMResource system will be updated to list the facility as a designated Stroke Center at the level granted by the State of Texas.

SETRAC STROKE FACILITY ESSENTIAL CRITERIA

Level 1: Comprehensive Stroke Centers (CSC) will meet the requirements of a Primary Stroke Center and those specified in the consensus Statement on Comprehensive Stroke Centers. (http://stroke.ahajournals.org/content/36/7/1597.long) and the Texas Administrative Code 157.133.

Level 2: Advanced Stroke Centers (ASC) *Thrombectomy Capable/Primary Plus Certification* will meet the requirements defined by the Texas Administrative Code 157.133.

Level 3: <u>Primary Stroke Centers</u> (PSC) will meet the requirements specified in "Recommendations for the Establishment of Primary Stroke Centers" (http://stroke.ahajournals.org/content/42/9/2651.full) and the Texas Administrative Code 157.133.

Level 4: <u>Acute Stroke Ready</u> (ASR) will meet the requirements defined by the Texas Administrative Code 157.133

STROKE PREVENTION

Goal: The SETRAC stroke system stakeholders (SETRAC, EMS and facilities) will partner to conduct health education, public awareness, and community outreach on the prevention of stroke, recognition of signs and symptoms of stroke, and the emergent care of the stroke victim.

SYSTEM ACCESS

Goal: Persons in the region will have access to emergency stroke care. In portions of this Region, First Responder Organizations (FRO) may provide initial treatment pending EMS arrival.

A primary element of an EMS/Stroke system is the provision of easy and rapid access to EMS and subsequent mobilization of a medical response to the scene. Every call for emergency services should universally and automatically be accompanied by location identifying information. Routing is based on telephone exchange area, not municipal boundaries. Automatic Number Identification (ANI) and Automatic Location Identification (ALI) should be available. Alternative Routing allowing 911 calls to be routed to a designated alternative location is in effect. Most areas route their calls to the county 911 in case of overload or failure.

Committee Charge
EMS Committee in collaboration with the Stroke Committee will promote written protocols and proper training of dispatch personnel.

COMMUNICATIONS

GOAL: All EMS communications systems must provide the means by which emergency resources can be accessed, mobilized, managed, and coordinated.

SETRAC (TSA Q) encourages 100% participation from all EMS agencies within the nine counties that comprise the SETRAC area. By enhancing participation, SETRAC can identify quality issues then move toward the resolution of these issues through assessment, education, intervention, and evaluation via system process improvement (SPI) procedures.

SETRAC MEDICAL DIRECTION

GOAL: Participation of the physicians on the SETRAC Board, the Stroke Committee, and through other standing or ad hoc committees will provide expertise and direction in the development and ongoing review of the regional stroke system of care.

The development of a regional stroke system of care requires the active participation of qualified physician providers. All physicians should not only be clinically qualified in their area of clinical practice but should have expertise and competence in the treatment of stroke patients.

Physician Involvement in Regional Plan Development - SETRAC encourages coordinated medical control in the region. To that end, an organized Physician Advisory Group can be organized on a periodic basis to review and approve regional planning components, policies, and protocols related to medical care.

REGIONAL PRE-HOSPITAL MEDICAL CONTROL

GOAL: In accordance with DSHS guidelines, all SETRAC pre-hospital care providers function under medical control through a delegated physician practice.

Medical Direction of Pre-Hospital Care Providers –Regional EMS protocols are available to all EMS providers for incorporation into local protocols. Periodic reviews and updates are completed and upon approval are distributed as necessary. These protocols serve as a baseline --individual Medical Directors may adapt for their local communities if necessary, to accommodate the unique aspects of their EMS region.

Regional Quality Improvement – This shall be an ongoing topic considered by the Stroke Committee, other committees as appropriate and the SETRAC Board. From time to time, a special meeting of physicians and stakeholders may be called by the Stroke Committee to delve more deeply into topics of interest.

PRE-HOSPITAL TRIAGE CRITERIA

GOAL: Patients will be identified, rapidly and accurately assessed, and based on identification of their actual or suspected onset of symptoms, transported to the nearest appropriate facility. SETRAC shall take steps to ensure that EMS personnel are properly educated throughout the region using prescribed criteria and tools.

SEE APPENDIX A – Prehospital Stroke Guidelines

SETRAC Stroke Center bypass may be considered for the following reasons:
1) Patient preference
2) Physician preference
3) Paramedic discretion

HELICOPTER ACTIVATION

GOAL: Regional air transport resources may be used to reduce delays in providing appropriate stroke care.

MOBILE STROKE UNIT ACTIVATION

GOAL: Mobile stroke units may be used to reduce delays in providing appropriate stroke care.

FACILITY SATURATION

GOAL: SETRAC stroke facilities will communicate "facility saturation" (formerly known as "facility diversion") status promptly and clearly to regional EMS and other facilities through EMSystem to assure that stroke patients are transported to the nearest appropriate stroke facility.

Facility Saturation is used by Stroke System entities to assure that stroke patients will be transported to the nearest appropriate SETRAC stroke facility when the facility cannot at that time accept a patient for safe and appropriate patient care. (See EMSYSTEM guidelines and protocols). These include situations which would require the facility to go on saturation, notification/ activation of saturation status, and the procedure for termination of saturation status. All facilities and pre-hospital providers should use the EMSystem to notify EMS partners of saturation status.

FACILITY BYPASS

GOAL: Suspected stroke patients who are eligible within the timeframe for stroke therapies will be safely and rapidly transported to the nearest appropriate stroke facility in accordance with published SETRAC transport guidelines.

SEE APPENDIX A – Stroke -Suspected Neurological Event Pre-hospital guidelines

FACILITY TRIAGE CRITERIA

GOAL: To promote the use of National, evidence-based guidelines for the triage of stroke patients.

INTER-HOSPITAL TRANSFERS

GOAL: To assure that those stroke patients requiring additional or specialized care and treatment beyond a facility's capability are identified and transferred to the most appropriate facility as soon as possible.

According to the federal Emergency Medical Treatment and Labor Act (EMTALA), a stroke facility must accept any transfer of patients whose condition requires a higher level of care that cannot be provided at the initial facility.

SYSTEM QUALITY MANAGEMENT AND PERFORMANCE IMPROVEMENT

GOAL: To promote participation in SETRAC's data collection registry for regional performance improvement.

SETRAC has established a method for monitoring and evaluating stroke system performance over time and assessing the impact of stroke system development on the region's public health.

SETRAC has established regional stroke data filters which reflect processes and outcomes of the SETRAC stroke system of care. SETRAC also provides a multidisciplinary forum for stroke care providers to evaluate stroke patient outcomes from a system perspective and facilitates the sharing of information, knowledge, and scientific data.

In order to assess the impact of regional stroke system development, system performance must be monitored and evaluated from an outcomes perspective. Measurement is needed to determine if the system is meeting its stated goals.

Scope and Committee Charge

The scope for regional quality management resides with the Regional Advisory Council. This is accomplished through the work of the Stroke Committee, Stroke Subcommittees, as well as other SETRAC Committees or ad hoc committees as needed.

DATA COLLECTION: Performance data is collected and reported by a designated person(s) at the receiving facilities and by EMS. Summary reports are developed by SETRAC for each hospital facility, the EMS providers, and the system as a whole. Distribution is through authorized channels directly to the appropriate provider leadership.

REVIEW/AUDIT: The Stroke Committee will review the SETRAC stroke system plan annually in the fourth quarter and submit recommendations to the SETRAC Board of Directors in the first quarter of the following year. SETRAC will also perform quarterly audits to ensure that Comprehensive and Advanced stroke centers are providing rapid treatment with thrombectomy according to performance metrics defined by the Stroke Committee.
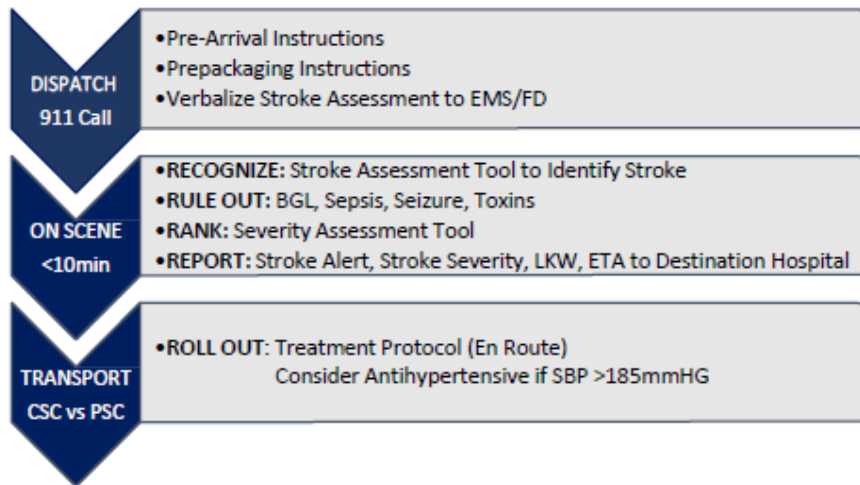
CONFIDENTIALITY: Information and reports start as blinded to facilities--confidentiality of the data is guided by the direction of the SETRAC Board of Directors. Information and materials provided and/or presented during Quality Management meetings are strictly confidential.

APPENDIX
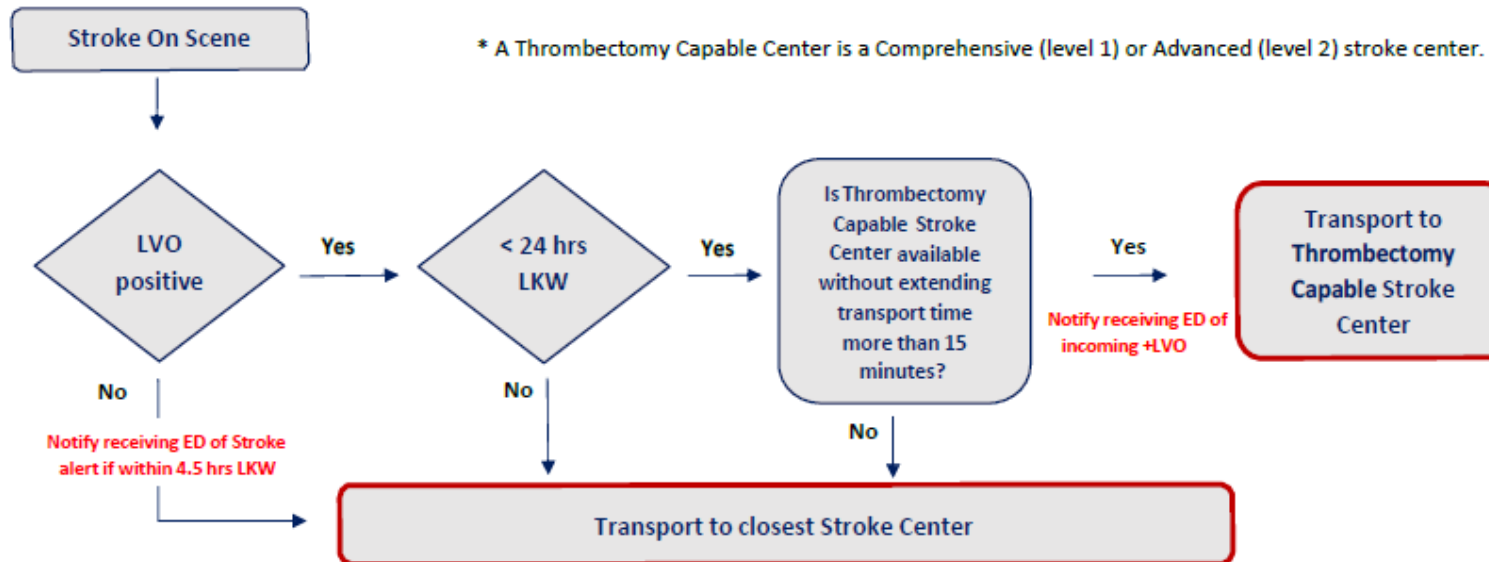
Prehospital Stroke Guidelines

![SETRAC - SouthEast Texas Regional Advisory Council]

Stroke Protocol with Integrated Endovascular Workflow

DISPATCH 911 Call
- Pre-Arrival Instructions
- Prepackaging Instructions
- Verbalize Stroke Assessment to EMS/FD

ON SCENE <10min
- RECOGNIZE: Stroke Assessment Tool to Identify Stroke
- RULE OUT: BGL, Sepsis, Seizure, Toxins
- RANK: Severity Assessment Tool
- REPORT: Stroke Alert, Stroke Severity, LKW, ETA to Destination Hospital

TRANSPORT CSC vs PSC
- ROLL OUT: Treatment Protocol (En Route)
  Consider Antihypertensive if SBP >185mmHG

Pre-hospital Bundle

LVO Severity Assessment Tools			
RACE≥5	LAMS≥4	CSTAT≥2	VANS+

Stroke On Scene

* A Thrombectomy Capable Center is a Comprehensive (level 1) or Advanced (level 2) stroke center.

LVO positive

Yes → **< 24 hrs LKW**

Yes → **Is Thrombectomy Capable Stroke Center available without extending transport time more than 15 minutes?**

Yes → **Transport to Thrombectomy Capable Stroke Center**

Notify receiving ED of incoming +LVO

No → Notify receiving ED of Stroke alert if within 4.5 hrs LKW

No →

No →

Transport to closest Stroke Center

Destination Determination

This is a Regional Guideline. Final authority for patient destination is based on individual agency EMS medical direction which should include consideration of hospital capability and quality. Always follow your agency protocol for patient treatment.

Revised 5.2022