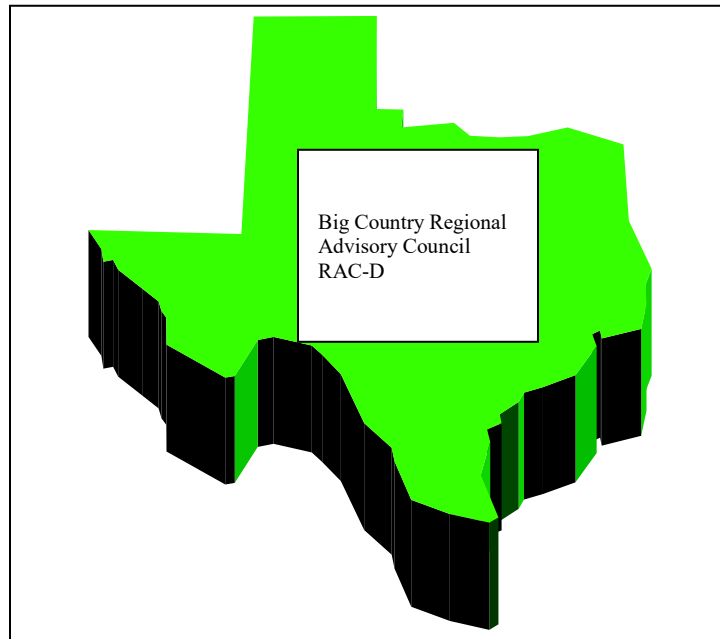


Big Country Regional Advisory Council (BCRAC) Trauma Service Area (TSA) - D Regional Stroke Plan

Big Country Regional Advisory Council
4373 Rio Mesa Drive
Abilene, TX 79606

2023



For the state service delivery area including Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Knox, Mitchell, Nolan, Shackelford, Stephens, Stonewall, Taylor and Throckmorton

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Introduction

Organization and Service Area

The Big Country Regional Advisory Committee (RAC-D) is comprised of the Central West Texas counties of **Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Knox, Mitchell, Nolan, Shackelford, Stephens, Stonewall, Taylor and Throckmorton**. BCRAC represents the Trauma Service Area-D, a geographic area as defined by the Texas Department of State Health Services and is a non-profit organization.

Service Area/Facilities

The BCRAC Service Area is comprised of fifteen (15) rural counties and one (1) urban county (Taylor). Located in Taylor County, Abilene is home to 125,182 residents with Taylor County estimated population at 143,208 residents. Abilene is a regional commerce center for residents of west central Texas. The area economy is based on agriculture, oil and gas production, education, and manufacturing. Of the top 20 largest employers in Abilene, 5 are directly involved in health care in some format and employ a minimum of 5,000 employees at any given time. Located three hours from Dallas/Fort Worth and four hours from San Antonio, Abilene serves a regional trade area and is considered the primary catchment area for our EMS system. Abilene is home to Dyess Air Force Base, home of the B-1 bomber squadron, which employs some 6,000 civilian and military personnel. The population in the remaining fifteen county service area is estimated at 161,529 for a total service area population of 304,737. Individual counties and estimated populations in this service area include*:

COUNTY	POPULATION	SQ. MILES	HOSP./TRAUMA LEV.
Taylor	143,208	917	<i>Hendrick Medical Ctr North -III</i> <i>Hendrick Medical Ctr South -IV</i>
Brown	38,095	936	<i>Hendrick Medical Ctr Brownwood -IV</i>
Callahan	13,708	899	No Hospital
Coleman	7684	1277	Coleman Co. Med. Ctr-IV
Comanche	13,591	930	Comanche Co. Med Ctr-IV
Eastland	17,725	924	Eastland Memorial Hospital-IV
Fisher	3672	897	Fisher Co. Hospital-IV
Haskell	5416	901	Haskell Memorial Hospital-IV
Jones	19,663	931	Anson Gen. Hospital-undesignated
Knox	3353	845	Knox Co. Hospital- IV
Mitchell	8990	916	Mitchell Co. Hospital- IV
Nolan	14,738	915	Rolling Plains Mem Hosp - IV
Shackelford	3105	915	No Hospital
Stephens	9101	894	Stephens Memorial Hosp - IV
Stonewall	1245	925	Stonewall Mem Hosp - undesignated
Throckmorton	1440	912	Throckmorton Co. Hosp - IV
TOTALS	304,737	14934	(US Census Bureau 2020)

(*Italicized county, population, and square mileage indicates "primary" catchment with all others indicating "secondary" catchment.)

Abilene is served by two not-for-profit acute care hospitals. Hendrick Medical Center, a 504 licensed bed hospital serves as the Level III Lead Trauma Facility for this service area. Hendrick Medical Center South is a 231-bed hospital. Hendrick North and Hendrick South work closely together to provide the optimum in trauma and emergency care throughout the area. With many physicians and dentists practicing multiple specialties, Abilene is widely recognized as a regional medical center. Other specialized medical facilities include: two regional rehabilitation centers, geriatric care facilities, wound care centers, a mental health and drug rehabilitation hospital and 10 rural hospitals in the service area that refer patients needing specialized care.

There are several institutes of higher learning located in Abilene, among them are Abilene Christian University, McMurry University and Hardin-Simmons University; as well as Texas State Technical College and Cisco Junior College. Affiliation with these higher education facilities as well as local and area paramedic/EMT programs enables students in varying aspects of health care to acquire experience and knowledge by providing one-on-one patient-caregiver interaction and also serves to promote ongoing communication and interaction between the organizations and provide potential jobs for these students.

Trauma Service Area

	Primary Catchment Area Level III
	Secondary Catchment Area with Level IV Facility
	Secondary Catchment Area with Emergent Access Facility
	Secondary Catchment with NO facility in county

HOSPITALS

1.	Hendrick Medical Center North
2.	Hendrick Medical Center South
3.	Hendrick Medical Center Brownwood
4.	Coleman Co. Med Ctr
5.	Comanche Co Med Ctr
6.	Eastland Memorial Hospital
7.	Fisher County Hospital
8.	Knox Co. Hospital
9.	Mitchell Co. Hospital
10.	Rolling Plains Mem Hospital
11.	Stephens Memorial Hosp
12.	Throckmorton Co. Hospital
13.	Anson General Hospital
14.	Haskell Memorial Hospital
15.	Stonewall Memorial Hospital

TSA-D BRAC-Stroke

MISSION

The BCRAC Stroke Committee's mission is to provide a comprehensive continuum of quality health care for all stroke patients in TSA-D, through continuing Education, Prevention and Performance Improvement.

VISION

The BCRAC will provide leadership in our region to improve outcomes and reduce disability related to stroke.

ORGANIZATION

The BRAC strives to provide the infrastructure and leadership necessary to sustain a stroke system of care within the 16 county region. Representatives from regional hospitals, EMS providers, Air transport and other first responders collaborate to ensure appropriate triage, transfer and guideline-directed care is provided to stroke patients in the region. Designated stroke facilities' leadership provides benchmarks, feedback and clinical practice guideline updates to ensure care is consistent across the continuum. The BRAC shares continuing education opportunities related to stroke and is involved in providing stroke education to the public through members of the Stroke Sub-Committee and Pre-Hospital Committee.

Regional Stroke Plan

This Plan has been developed in accordance with generally accepted national 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 general patient care scenarios. It is not intended to supersede the physician's medical judgment to order treatment.

GOALS

1. To reduce the morbidity, mortality and disability of the stroke patient population.
2. To recognize facilities' capability to treat stroke patients within TSA-D based on the State requirements for Stroke Center Designation.

OBJECTIVES

1. To improve the overall care of stroke patients by rapidly recognizing the signs of a stroke and transporting the potential stroke patient to the appropriate facility, in the appropriate time, with the appropriate level of resources.
2. To identify facilities and corresponding level of stroke management within TSA-D.
3. To improve patient outcomes in the region.

DISCUSSION

While it is recognized many of the facilities within TSA-D may elect NOT to seek Stroke Center Designation, in effort to provide the optimum in patient care and thereby improve outcomes, BCRAC has elected to utilize the criteria set forth by the State of Texas for Stroke Center Designation as the foundation in identifying individual facility capabilities.

REGULATORY AGENCIES AND GUIDELINE RESOURCES FOR STROKE CARE

1. DSHS [Stroke Designation | Texas DSHS](#)

- A) All designated stroke facilities must participate in the regional and statewide stroke systems.
- B) The Governor's EMS and Trauma Advisory Council (GETAC) Stroke Committee of the Department of State Health Services (DSHS) Stroke Committee recommend the designation of four levels of state recognized stroke centers/facilities as follows:
 - A) Level I – Comprehensive
 - B) Level II – Advanced
 - C) Level III – Primary
 - D) Level IV – Acute Stroke Ready
- C) Designation requirements by level
 - 1. For DSHS Stroke Designation levels I, III, and IV Refer to the Brain Attack Coalition Publications
 - a) Recommendations for Comprehensive Stroke Centers (2005)
 - b) Revised and Updated Recommendations for the Establishment of Primary Stroke Centers (2011)
 - c) Formation and Function of Acute Stroke Ready Hospitals (2013)
 - 2. For DSHS Stroke Designation level 2, Refer to EMS Trauma Systems Section Stroke Facility Designation Advanced Level II Stroke Designation Department Approved Guidelines (May 2023)
 - 3. Each designated stroke center is required to keep up with designation requirements.
 - 4. Refer to DSHS website for complete list of hospitals or centers meeting state approved criteria and their Stroke Center/Facility designation.
 - 5. Online stroke resources
 - American Heart Association (www.americanheart.org)
 - American Stroke Association (www.strokeassociation.org)
 - Brain Attack Coalition (www.stroke-site.org)

DESIGNATED STROKE FACILITIES

If a BRAC hospital or center fails to meet the criteria for a state stroke center/facility level designation for more than 6 weeks or if a hospital or center no longer chooses to maintain state stroke center/facility level designation, the hospital shall immediately notify, by certified mail return receipt requesting, the DSHS, local EMS, and governing RAC.

STROKE SYSTEM QI Regional data is presented quarterly at the Pre-Hospital Committee Meetings. The Stroke Sub-Committee meets quarterly prior to RAC meeting for process improvement in the region.

STROKE DATA INDICATORS:

EMS

Pre-Hospital Cincinnati Stroke Scale Performed and Documented in EMS record

Stroke Severity Screen Performed and Documented in EMS Record

Pre-Hospital Stroke Alert

REGIONAL FACILITIES

Door to CT <25 min

CT interpretation <45 min

CTA performed or Stroke Severity Screen documented (ischemic)

Door to thrombolytic (alteplase or tenecteplase) <60 min

Door in Door Out Goal <90 min

Door to Puncture (endovascular thrombectomy) <90 min

Confidentiality - All information and materials provided and/or presented during QI meetings are strictly confidential.

TSA D - EMS SERVICES

- 1) Abilene Fire Department-EMS
- 2) Air Evac Lifeteam 63-Abilene
- 3) Air Evac 115- Eastland
- 4) Air Evac 52- Brownwood
- 5) Citizens EMS
- 6) Comanche County EMS
- 7) Cross Plains EMS
- 8) Dublin EMS
- 9) Eastland Memorial Hospital EMS
- 10) Eula VFD
- 11) Fisher County Hospital District EMS
- 12) Hamlin EMS
- 13) Haskell County Ambulance Service
- 14) Heart of Texas EMS-Coleman
- 15) Jim Ned VFD
- 16) Knox County EMS
- 17) Lifeguard Ambulance Service- Brownwood
- 18) MetroCare Services Abilene-L.P.
- 19) Mitchell County EMS
- 20) Native Air of Snyder
- 21) North Runnels Hospital EMS
- 22) Potosi Volunteer Fire Department
- 23) Ranger Fire Department-EMS
- 24) Sacred Cross EMS
- 25) Scurry County EMS
- 26) Shackelford County EMS
- 27) Stamford EMS
- 28) Stephens County EMS
- 29) Stonewall County Ambulance Service
- 30) Sweetwater Fire Department
- 31) Taylor County EMS
- 32) Throckmorton County EMS

Contact information can be found on the Big Country Regional Advisory Council Home page
[EMS Providers | Mysite \(bigcountryrac.org\)](http://bigcountryrac.org)

TSA-D Regional Hospitals

Level III (Primary) Stroke Centers

Hospital Name – Town	IV thrombolytic?	Thrombectomy Capability?	Neurosurgery Capability?
Hendrick Medical Center North – Abilene	YES	YES	YES
Hendrick Medical Center South – Abilene	YES	NO	NO

Level IV (Acute Stroke Ready) Stroke Center

Hospital Name – Town	IV thrombolytic?	CT	CTA
Coleman County Medical Center - Coleman	YES	YES	YES

Regional Support Facilities (without designation)

Hospital Name – Town	IV thrombolytic?	CT	CTA
Comanche County Medical Center -Comanche	YES	YES	NO
Eastland Memorial Hospital – Eastland	YES	YES	YES
Fisher County Hospital – Rotan.	NO	YES	NO
Haskell Memorial Hospital – Haskell	YES	YES	YES
Stonewall Memorial Hospital – Aspermont	YES	YES	YES
Hendrick Medical Center Brownwood – Brownwood	YES	YES	YES
Knox County Hospital – Knox City	YES	YES	YES
Mitchell County Hospital – Colorado City	YES	YES	NO
North Runnels	YES	YES	NO
Rolling Plains Memorial Hospital – Sweetwater	YES	YES	YES
Stephens Memorial Hospital – Breckenridge	YES	YES	YES
Throckmorton County Hospital - Throckmorton	NO	NO	NO

Emergent Access Facilities

Hospital Name-Town	IV thrombolytic?	CT	CTA
Anson General – Anson (24 hour Emergency Room only)	NO	YES	YES

No Hospital

Callahan County, Shackelford County

Below are lists of possible facilities that may be utilized outside TSA D. These facilities are identified as within 250 miles of TSA-D Lead Facility in Abilene.

- **Level I Designated Stroke Facilities outside TSA-D**

Texas Health Harris Methodist Fort Worth

1301 Pennsylvania Ave
Fort Worth, TX 76104
817-250-2000

UT Southwestern Medical Center

5323 Harry Hines Blvd
Dallas, TX 75300
214-648-3111

Medical City Fort Worth

900 8th Street
Fort Worth, TX 76104
217-336-2100

Covenant Medical Center

3610 22nd Street
Suite 301
Lubbock, Texas 79410
806-725-1630

For other Texas designated stroke facilities, refer to

www.dshs.texas.gov/dshs-ems-trauma-systems/stroke-system-development/texas-stroke-facilities

Stroke Patient Transport - Stroke patients in TSA-D are transported according to patient need, availability of air transport resources, and environmental conditions. Ground transport via BLS or ALS ground ambulance is available throughout the Region. Air Medical transport (fixed and roto wing) is also available in this Region.

PRE-HOSPITAL TRIAGE

GOAL: Patients with acute stroke symptoms should receive expeditious EMS dispatch and response. EMS personnel should be knowledgeable in the assessment, management, and triage of suspected stroke patients. Personnel should be skilled in the performance of stroke screening and in determining the timing, onset and nature of the symptoms. Because some acute stroke treatments require the provision of definitive care within a specific time frame, EMS personnel should communicate with the receiving facilities as soon as possible and transport the patient to the nearest appropriate acute care facility.

PURPOSE: To ensure the prompt availability of medical resources needed for optimal patient care, each patient will be assessed for the presence of neurological changes using the Cincinnati Stroke Scale, and concurrent disease/predisposing factors.

SYSTEM TRIAGE

GOAL: Patients with an onset of stroke symptoms < 4 ½ hours should be taken to the closest regional facility with the following capability:

- ❑ Interpreted computed tomography (CT) imaging scan is available within 45 minutes of patient arrival.
- ❑ Thrombolytics can be administered within 60 minutes of patient arrival.
- ❑ Physician is available within 10 minutes of patient arrival.

If stroke symptoms $\geq 4 \frac{1}{2}$ to <24 hours and the Stroke Severity Scale is positive for possible LVO, transfer to nearest designated stroke facility with thrombectomy capability. Hendrick Medical Center North is the only facility with thrombectomy capability in TSA-D.

Patients with an onset of stroke symptoms occurring outside of the thrombolytic window of <4.5 hours of LKN and with a LVO screen negative should be transported to the nearest acute care facility for initial diagnosis and treatment.

In any situation, unstable patients (ABC's, cardiac arrest, etcetera) should be taken to the nearest facility for stabilization.

This plan is based on accepted best practice guidelines but does allow for patient preference.

BCRAC PREHOSPITAL TRANSPORT GUIDELINES FOR STROKE

SUSPECTED STROKE

Assessment Guidelines:

- Onset S/S
- Time "last known normal"
- Complete Vital Signs
- Blood Glucose*
- Pre-Hospital Cincinnati Stroke Scale
- Stroke severity scale to assess for possible LVO
- Thrombolytic Checklist
- 12-Lead ECG

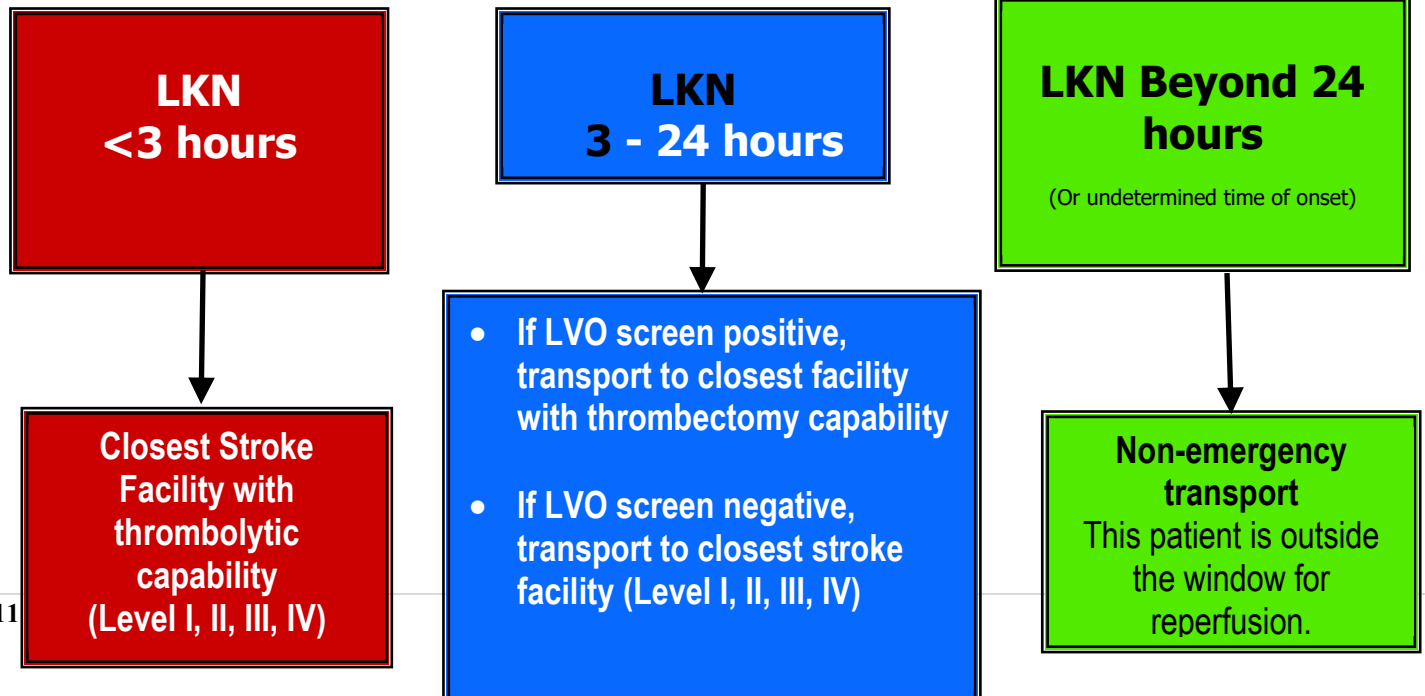
*Consider other etiologies such as hypoglycemia and seizure.

Minimum Treatment Guidelines:

- Oxygen per TDP to keep SPO₂ >94%
- IV NS TKO (as per skill level)
- Consider antihypertensive agent for blood pressures above 220/110
- Rapid transport to appropriate facility as indicated.
- Divert to the closest hospital for airway management or stabilization.
- Consider Air Medical transport for patient deterioration.

Transport decision should be based on time of onset as appropriate.

If >60 min ground transport, consider Air Medical Transport to decrease time.



HELICOPTER ACTIVATION

GOAL: Air transport resources will be appropriately utilized in order to reduce delays in providing optimal stroke care.

DECISION CRITERIA TO ACTIVATE:

1. If expected transport time is excessive (>30 minutes), activation of air transport resources should be considered.
2. Capability of closest appropriate facility (See System Triage section).

HOSPITAL TRIAGE CRITERIA

GOAL: Facilities rapidly identify potential stroke patients and deliver evidence-based care.

OBJECTIVES:

1. Ensure each stroke patient is rapidly identified and accurately assessed based on the last known normal. The patient will be treated appropriately or transferred to the nearest acute care facility for appropriate intervention. (See page 8 for regional facility imaging and thrombolytic capability)
2. Ensure prompt availability of medical resources for optimal patient care.

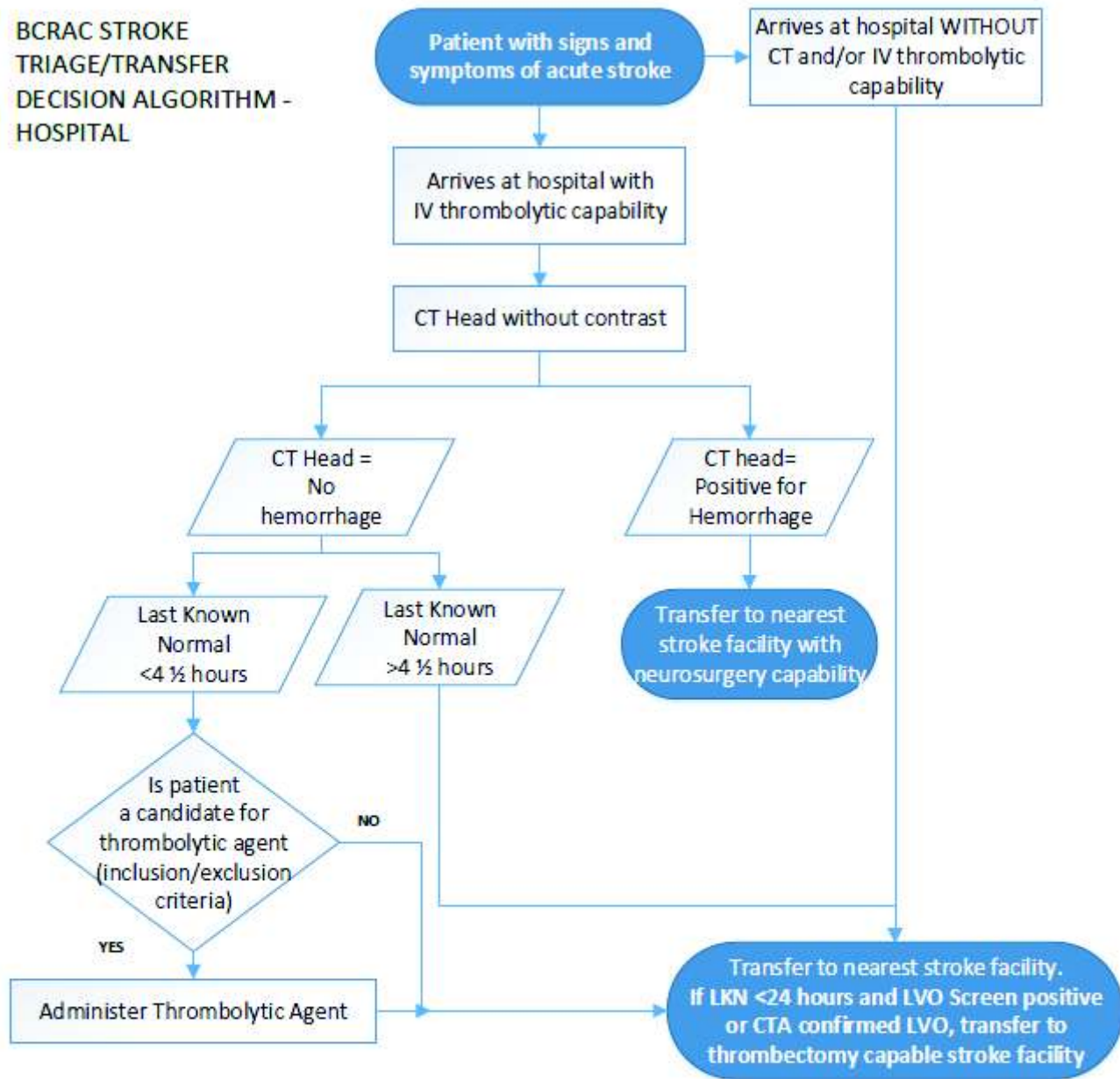
INTER-HOSPITAL TRANSFERS

GOAL: Inter-hospital transfer plans within TSA-D ensure stroke patients requiring additional or specialized care and treatment beyond a facility's capability are rapidly identified and transferred to appropriate facilities.

OBJECTIVES:

1. Ensure all regional hospitals make transfer decisions based on the BRAC Stroke Triage/Transfer Decision Algorithm – Hospital (See page 13).
2. Identify standards of care for stroke treatment
3. Consider early air medical activation for inter-hospital transfers.

**BCRAC STROKE
TRIAGE/TRANSFER
DECISION ALGORITHM -
HOSPITAL**



Inter-facility Nursing Handoff:

- Time of Last Known Normal
- Patient’s presenting symptoms
- Medications administered (including prior to hospital arrival)
- Home Medications (please include any anticoagulants/antiplatelets)
- Imaging performed and results
- NIHSS/Glasgow Coma Scale
- Abnormal Labs, POCT Glucose
- Vital Signs
- IV access
- Family contact information and relationship

Large Vessel Occlusion (LVO) Screening Tool
 V -Vision
 A -Aphasia
 N -Neglect

FACILITY DIVERSION:

Goal

TSA-D stroke facilities will communicate “facility diversion” status promptly and clearly to regional EMS and other facilities in order to ensure that stroke patients are transported to the nearest appropriate stroke facility.

System Objectives

1. To ensure that stroke patients will be transported to the nearest appropriate stroke facility.
2. To develop system protocols for regional facility and stroke diversion status:
 - Situations which would require the facility to go on diversion
 - Notification/activation of facility diversion status
 - Procedure for termination of diversion status
3. Regional stroke care problems associated with facility diversion will be assessed through the BCRAC Committee and/or Pre-Hospital Committee.

If the designated stroke facility has an interruption in capabilities or capacity critical to the evaluation and treatment of a stroke patient, the facility will immediately notify local EMS providers, referring facilities, and their RAC by written or electronic communication with time-stamp capabilities.

STROKE PLAN RECOMMENDATIONS

Last Known Normal (LKN) Accurate communication of last known normal- not when symptoms found

Pre-Hospital Stroke Scale – Regional EMS providers should assess and document the pre-hospital stroke scale such as the Cincinnati Pre-Hospital Stroke Scale (CPSS) or FAST-ED.

Pre-Hospital Stroke Severity Score (LVO Screening Tool) – Regional EMS providers should assess and document the LVO screening. ED physicians and staff should be familiar with these tools. Examples: VAN or RACE score.

NIH Stroke Scale – It is recommended facilities have a written protocol utilizing the NIH Stroke Scale.

Glasgow Coma Scale- Clinical scale used to reliably measure a person’s consciousness after a brain injury

IV thrombolytic Checklist – The facility should utilize the regional IV thrombolytic Checklist or a similar checklist with the same information.

Thrombolytic Therapy Administration Protocol* – This criterion refers to a facility having a written protocol for administering thrombolytics if the facility will be administering thrombolytics.

- **Alteplase for ischemic stroke: 0.9 mg/kg with Max dose 90 mg.** Give 10% of total dose administered as a bolus over 1 minute. Then remainder of the dose over 60 minutes.
- OR
- **Tenecteplase for ischemic stroke** 0.25 mg/kg with a max dose of 25 mg IVP over 5 seconds.

*If regional facility is **unable** to administer a thrombolytic within the 4 ½ hour window, facility should communicate to EMS provider of need to bypass to nearest facility with capability. See “Facility Bypass”.

24/7 STAT CT* – This criterion is desired. This criterion refers to the ability to have a CT completed and read within 45 minutes of arrival to ED.

*If no CT capability, facility should communicate to EMS provider of need to bypass for patients with signs and symptoms of stroke.

24/7 STAT CTA* – This criterion is desired. If unable to perform CTA or results are pending, regional facility should screen for large vessel occlusions (LVO) for patients presenting with signs and symptoms of an acute ischemic stroke with negative CT head and Last Known Normal <24 hours.

*Do not delay transfer if results are pending. Call accepting facility with results while patient is in route.

TRANSFER AGREEMENTS –It is recommended that regional referral facilities have transfer agreements with a level I, II or III Stroke Center.

AGREEMENTS WITH EMS PROVIDERS – The facility should have at least one written agreement with an EMS Provider allowing stroke patients to be treated as priority one/emergent.

RECOMMENDED STAFF EDUCATION

NIH Stroke Scale Education – It is recommended facilities have written protocols outlining NIH Stroke Scale education for all nursing staff and physicians involved in stroke care.

Other Stroke Education – It is recommended EMS providers and facilities provide stroke education for personnel.

Optional Tracking Tool for Hospital Use

BCRAC Stroke Tracking Tool-Regional Hospital

Patient Name:		Emergency Physician:	
Med Rec#:		Tele-neurology Physician:	
Account #:		Admitting Physician:	
Admit Date:		ED Primary Nurse:	
#	Time	Steps	Goal
1		Patient arrived in regional facility	
2		ED Provider at Bedside	10 min
3		Last Known Normal (LKN) time: __: __ am/pm-document in flowsheet	
4		Time Stroke Code Called	
5		STAT PXP glucose: result _____	arrival
6		Stat CT (Non-Contrast CT of Head)	<20 min
		Stat CTA Head and Neck	
7		Istat Chem, Troponin (if applicable)	arrival
8		Initiate IV line (two large bore IV lines if alteplase used)	
9		STAT lab: CBC, CMP, PT/PTT (document time drawn)	
10		O2 _____ L/m via _____ (prn saO2 <94%)	
11		Continuous Cardiac Monitoring	
12		Baseline NIHSS score _____ (PRIOR TO thrombolytic) Admit/Transfer NIHSS score _____ (Both must be documented in EMR)	
13		NPO until dysphagia screening performed by RN	
14		EKG result	<45 min
15		Door to lab results	<45 min
16		CT result available (As soon as possible, but must be <45 min)	<45 min
17		Hemorrhagic CVA ___ Yes ___ No Stroke code cancelled ___ Yes ___ No	
18		Review Inclusion / Exclusion criteria for THROMBOLYTIC Patient meets criteria for Thrombolytic? ___ Yes ___ No	
19		Neuro-telemedicine consult per ED Physician? ___ Yes ___ No Telephone consult only ___ Yes ___ No Time Tele-neurologist on screen/telephone - document in EMR	
20		Foley only if necessary (PRIOR to thrombolytic) **DO NOT HOLD thrombolytic to insert** (Routine Foley insertion is not recommended)	
21		THROMBOLYTIC administration Time (Door to administration: _____)	<60 min
22		Vital signs and NIHSS post THROMBOLYTIC (see protocol of every 15 min x 2 hrs, every 30 min x 6 hrs, every 1 hr x 16 hrs)	
23		If LVO, TRANSFER FOR POSSIBLE ENDOVASCULAR THROMBECTOMY	

Primary Nurse Signature:

BP Parameters: Pre-thrombolytic BP <185/110- Maintain at <180/105
Permissive hypertension if not a thrombolytic candidate and no Hemorrhagic stroke BP goal SBP ≤140 -Maintain SBP 130-150

NOT A PART OF THE PERMANENT RECORD! This is a tracking Tool.

Thrombolytic Eligibility Criteria (Ischemic Stroke):

Inclusion criteria:

If any of the following is not checked, a thrombolytic agent should NOT be administered. If ALL of the following are checked, proceed with the checklist

- o Age 18 years or older.
- o Clinical diagnosis of Ischemic Stroke causing a measurable neurologic deficit.
- o Time of symptom onset well established to be less than 4.5 hours (270 minutes).

Exclusion criteria:

¶ If any of the following is marked, DO NOT administer thrombolytic.

- o Significant head trauma, prior stroke, or neurosurgery in the past three months.
- o Symptoms suggest intracranial hemorrhage.
- o Arterial puncture at non-compressible site in the previous 7 days.
- o History of previous intracranial hemorrhage.
- o Recent intracranial neoplasm, AVM, or aneurysm.
- o Full-dose enoxaparin within past 24 hours.
- o Bacterial endocarditis.
- o Aortic arch dissection.
- o GI malignancy or GI bleed within past 21 days.
- o Systolic blood pressure greater than 185 mmHg or diastolic greater than 110 mmHg unresponsive to medical therapy.
- o Active internal bleeding.
- o Active bleeding diathesis, including but not limited to:
 - ¶ Platelets less than 100,000/mm²
 - ¶ Heparin received within 48 hours resulting in abnormally elevated aPTT greater than 40 seconds
 - ¶ Current use of anticoagulant with INR* greater than 1.7 or PT greater than 15 seconds
 - ¶ Current use of direct oral anticoagulants with elevated sensitive laboratory tests (e.g. aPPT, International Normalized Ratio, platelet count, TT, or appropriate Xa activity assays).
- o Blood glucose concentration less than 50 mg/dL (2.7 mmol/L).
- o CT demonstrates multilobar infarction (hypodensity greater than 1/3 cerebral hemisphere) consistent with irreversible injury.

Page 2 Thrombolytic Eligibility Criteria (Ischemic Stroke):

Warnings: Patient is NOT ELIGIBLE for thrombolytic therapy if any ** warning is checked AND patient is in the 3 - 4.5 hour window.

- o **Stroke severity - too severe (NIHSS* greater than 25). *National Institute of Health Stroke Scale
- o **Taking oral anticoagulants (e.g. Coumadin).
- o **Advanced Age (80 years or greater).
- o **History of stroke AND diabetes.
- o **Ischemic injury greater than 1/3 of middle cerebral artery territory.
- o Glucose is greater than 400 mg/dL.
- o Rapid improvement or stroke severity is too mild.
- o Life expectancy is less than 1 year or comorbid illness.
- o Recent major trauma or surgery within the past 14 days.
- o Seizure at onset (deficits are postictal).
- o Left heart thrombosis.
- o Pregnancy.
- o Patient or family refused.
- o Care team unable to determine eligibility.
- o Increased risk of bleeding due to acute pericarditis, hemostatic defects including those secondary to severe renal or hepatic disease, hemorrhagic retinopathy, septic thrombophlebitis, or AV cannula.

Thrombolytic therapy may be prescribed at physician's discretion after reviewing inclusion/exclusion criteria and weighing risk versus benefit.