East Texas Gulf Coast Regional Trauma Advisory Council

Regional Advisory Council - R (RAC-R)

RAC-R proudly supports and serves Brazoria, Chambers, Galveston, Hardin, Jasper, Jefferson, Liberty, Newton and Orange Counties covering approximately 7,465 square miles of Southeast Texas

East Texas Gulf Coast Regional Trauma Advisory Council (RAC-R)
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Revised & Adopted June 18, 2019

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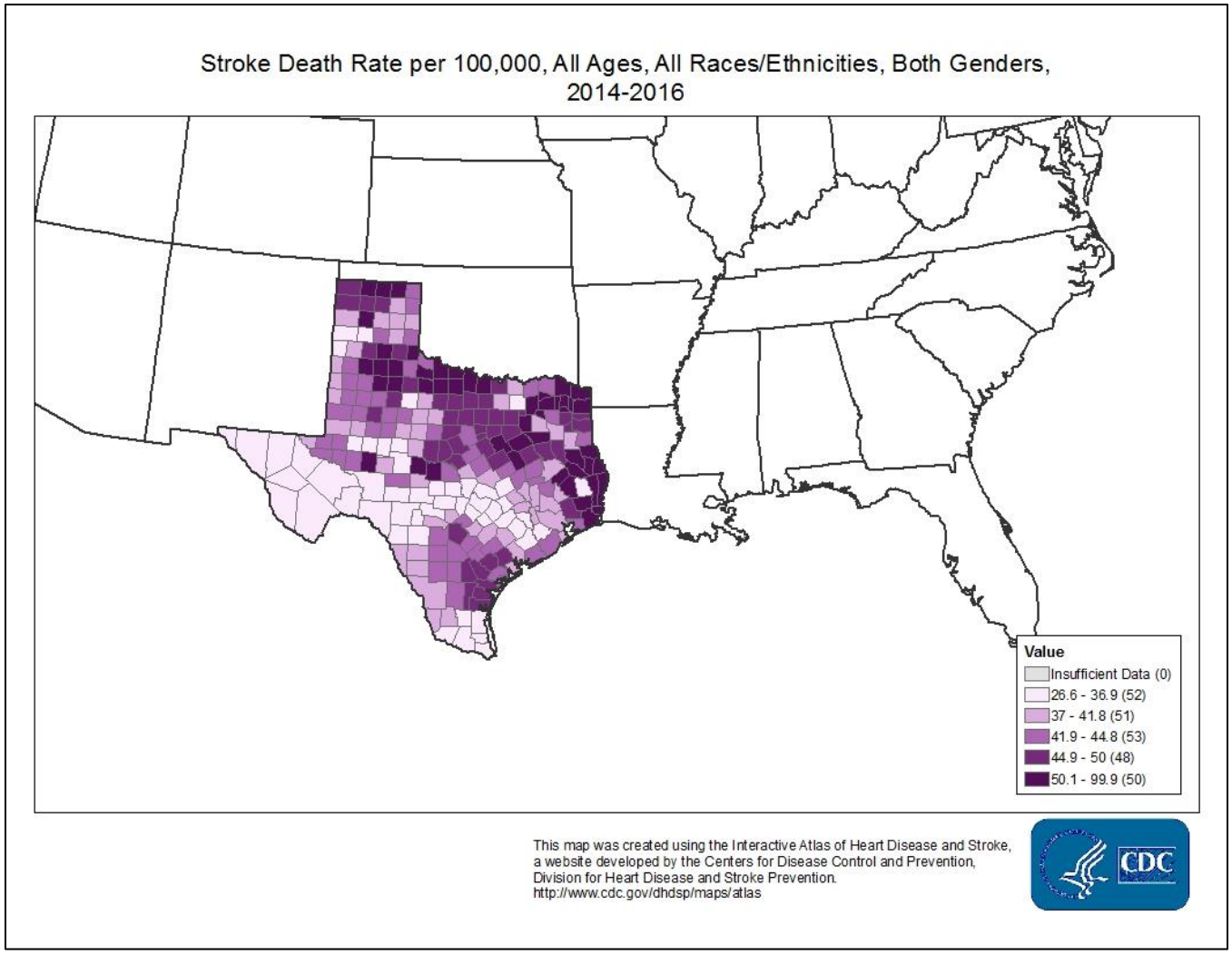
Revision History

Date Adopted	Change Notes
August 15, 2014	Original
October 26, 2018	• Updated Introduction & Stroke Facts • Updated to AHA/ASA 2018 Guidelines • Removed requirements for obtaining hospital designation and cited recognized levels of stroke centers by State of Texas • Creation of Stroke Decision Algorithm • Inclusion of Revision History • Inclusion of Reference Section
June 18, 2019	Adopted Revisions

Introduction

Stroke remains to be the leading cause of serious, long-term disability in the United States - where someone suffers a stroke every 40 seconds, on the average, and dies every 4 minutes (Benjamin, et al., 2018). Stroke is one of the leading conditions that causes people in the United States to live with functional disabilities. Functional disabilities pertain to the difficulty in performing daily activities that involve vision, hearing, and speech in one's work, job, business, or daily chores.

Stroke is the 5th most common cause of death in the United States, killing nearly 130,000 people a year (Benjamin, et al., 2018). It is expected that by 2030 3.4 million US adults will have had a stroke, a 20.5% increase from 2012 (Benjamin, et al., 2018). In 2015, here in Texas stroke was the third leading cause of death (Kus, Bhakta, Bullis, Baudoin, & Auzenne, 2017).



(Stroke Facts, 2018)

Mission

The mission of the East Texas Gulf Coast Regional Trauma Advisory Council Critical Care Committee is to facilitate coordination of stroke providers to ensure the most efficient, consistent, expeditious, effective and innovative care for each and every individual whom experiences an acute stroke, by developing, implementing, and maintaining an integrated quality process in stroke prevention and comprehensive stroke care.

Vision

RAC-R will develop and support leadership within our region, state, and nation regarding the care of stroke patients and the solution to preventable mortality and morbidity.

Organization

There are limited stroke centers within RAC-R, and many patients must be transported directly to a stroke center in another RAC (mostly RAC-Q). For this reason RAC-R places a great deal of emphasis on its cooperation with SETRAC (TSA-Q).

In addition to working with the stroke centers in our RAC, RAC-R will focus much attention on providing the infrastructure and leadership necessary to sustain appropriate stroke treatment and transfer systems within and into RAC's where more definitive acute stroke care can be delivered. All RAC-R committees have an invested interest in continuing to improve the care that is rendered to stroke patients. It is imperative that all members of RAC-R work collectively and cooperatively to ensure that the highest level of care is being delivered to each and every stroke patient by pre-hospital and hospital professionals. RAC-R will provide stroke and public awareness education, and stroke education to health care providers in each of the nine counties.

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 scenarios. It is not intended to supersede the physician's prerogative to order treatment.

Goals

- Identify and integrate our resources as a means to obtaining commitment and cooperation.
- Identify leverage tactics to promote EMS provider participation.
- Establish system coordination relating to access, protocols/procedures and referrals. These structures will establish continuity and uniformity of care among the providers of stroke care.
- Promote internal communication as the mechanism for system coordination which will include the EMS providers, hospitals, and members of the RAC-R Critical Care Committee and the SETRAC Stroke Committee.
- Create system efficiency for the patient and the programs through continuous quality improvement programs which will identify the patient's needs, outcome data and help develop standard uniformity.
- Institute an understanding of the guidelines for Stroke Center designation as dictated by the Texas Department of State Health Services.

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-R members should actively initiate and promote stroke prevention activities.

Requirements for Texas Stroke Center Designations

The Department of State Health Services (DSHS) Stroke Committee recognizes stroke centers/facilities as follows:

Level I: Comprehensive Stroke Centers

Level 2: Primary Stroke Centers

Level 3: Support Stroke Facilities

DSHS maintains a list on its website of hospitals or centers meeting state approved criteria and their Stroke Center/Facility designation. RAC-R will recognize stroke centers designated by DSHS. Facilities seeking designation should notify RAC-R in writing and seek approval in order to list themselves as seeking designation on EMResource.

Pre-hospital Triage and Treatment

Goal – Patients will be identified, rapidly and accurately assessed, and based on the severity of their stroke, should be transported to the nearest appropriate stroke facility in accordance with RAC-R algorithms.
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 time to treatment for the patient. Use of an approved stroke assessment will assist the pre-hospital provider in determining the patients need and facility destination decision. Each EMS Medical Director 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.

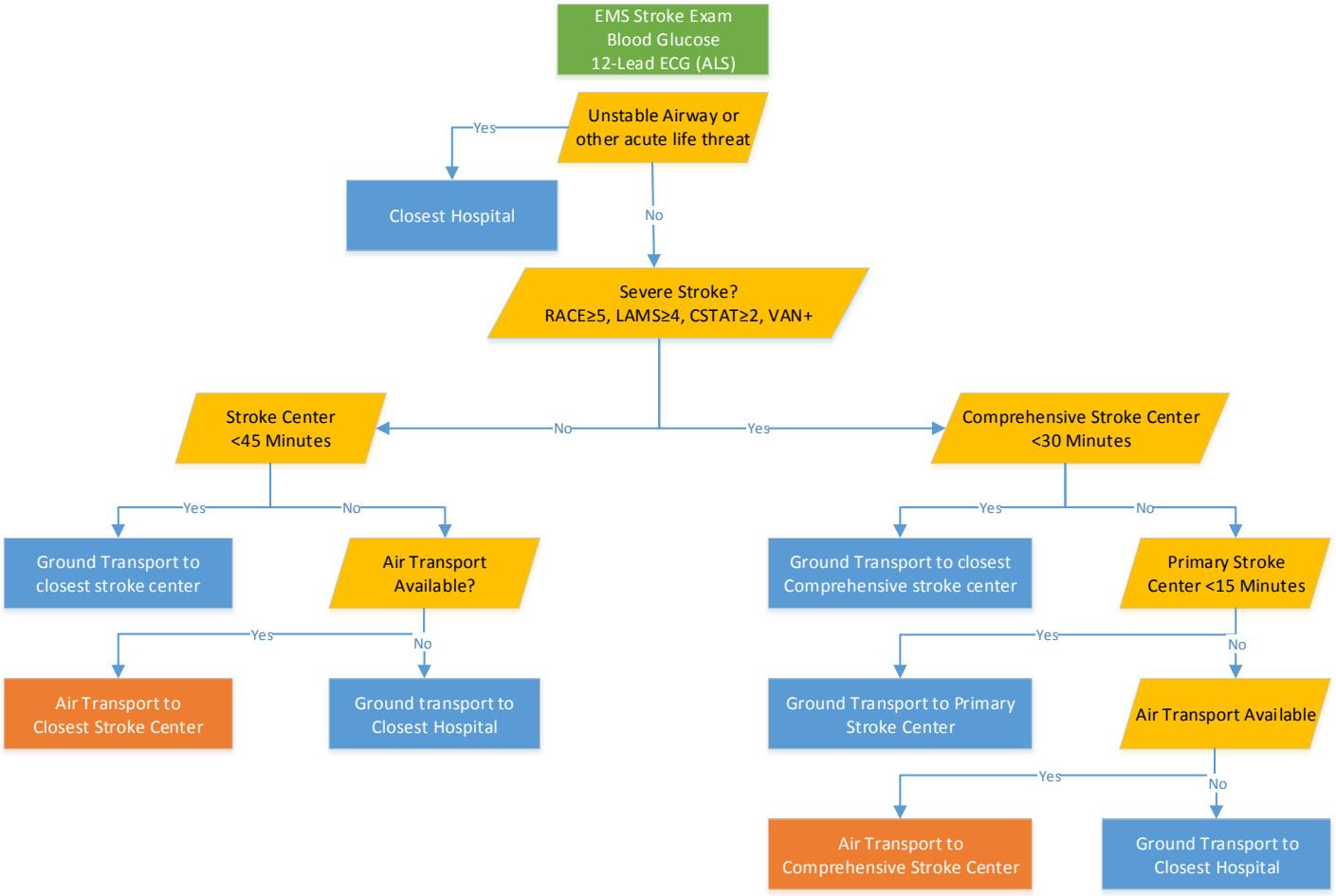
System Triage

Goal – Patients with stroke symptoms (Powers, et al., 2018) should be transported to the closest appropriate level I (Comprehensive) or level II (Primary) stroke facility for evaluation and treatment with interventional measures. It is expected that the EMS provider will first assess the patient's hemodynamic stability, and then the EMS provider will make the determination as to the severity of the stroke.

Unless patient condition and/or immediate intervention (respiratory failure, cardiac arrest etc.) is required, patients with a suspected Large Vessel Occlusion (LVO) should be taken to a level 1 facility to be evaluated for advanced therapy in accordance with RAC-R algorithms.

In the event that transport time by ground cannot meet the goals for timely transport, patient should be transported by air medical transport if available. Additionally, if immediate lifesaving intervention (advanced airway, cardiac arrest, etc.) is required, patients should be transported to the closest hospital.

Stroke Decision Algorithm



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.

Transfer Discussion –

a. The level of healthcare resources required for acute stroke care patients is outlined in the pre-hospital triage criteria. When a stroke patient is identified the non-stroke facility should call a designated Level II (Primary) stroke facility or Level I (Comprehensive) stroke facility and advise that they have a "Code Stroke".
b. The Level I or II stroke facility should consult with the provider at the transferring facility to ensure that the patient is stable and determine the best transport decision for the patient (air transport vs. ground transport)
c. The Level I or II stroke facility should determine their ability to accept the patient in transfer as soon as possible.

References

Benjamin, E. J., Virani, S. S., Callaway, C. W., Chamberlain, A. M., Chang, A. R., Cheng, S., . . . Munter, P. (2018). *Heart Disease and Stroke Statistics - 2018 Update.* Dallas: American Heart Association.

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