Comprehensive Stroke Center Requirements

Must obtain Comprehensive Stroke Center Certification by the Joint Commission, or other LERN approved accrediting/certification body.

The CSC will provide support all Louisiana hospitals as a referral source for high level neurological critical care, medical, interventional, and surgical capabilities. EMS should not bypass a PSC, PSC-E or an Acute Stroke Ready Hospital where care can be delivered faster to reach such a CSC Hospital. EMS should only bypass a PSC or an Acute Stroke Ready Hospital if the patient is known to be outside of the window for treatment with IV lytic and a screen for large vessel occlusion is positive. For patients <4.5 hours from the time of symptom detection with unknown time of stroke onset, bypass of hospitals without emergent MRI capability is recommended to reach a CSC or other certified hospital with emergent MRI capability.

Program Concept	CSC
Eligibility	General eligibility requirements: use of a standardized method of delivering care centered on evidence-based guidelines for stroke care. • Treatment of 10 aneurysmal SAH annually (20 over 2 years) • Capable of treating 15 intracranial aneurysms annually using FDA approved device (30 over 2 years) • Administering IV thrombolytic therapy 25 times annually (50 times over 2 years) • CSCs will be required to meet a minimum mechanical thrombectomy volume as per TJC requirements (see TSC requirements).
Program Medical Director	Has extensive expertise and knowledge in neurology/ CV disease to provide clinical and administrative guidance to program; available 24/7
Acute Stroke Team	Available 24/7, at bedside within 15 minutes
Emergency Medical Services Collaboration	Access to protocols used by EMS, routing plans; records from transfer and prehospital notification
Stroke Unit	Dedicated neuro intensive care and stroke unit beds for complex stroke patients available 24/7; on-site neurointensivist coverage 24/7
Initial Assessment of Patient	Emergency Department physician
Diagnostic Testing Capability	24/7: CT/CTA, MRI/MRA (including DWI), labs, catheter angiography When indicated: carotid duplex ultrasound, TEE, TTE, TCD
Neurologist Accessibility	Meets concurrently emergent needs of multiple complex stroke patients; Written call schedule for attending physicians providing availability 24/7
Neurosurgical Services	24/7 availability: Neurointerventionist; Neuroradiologist; Neurologist; Neurosurgeon
Telemedicine	Available if necessary
Treatment Capabilities	IV thrombolytics; Endovascular therapy, treatment of aneurysms using FDA approved device; carotid artery procedures and neurosurgical services
Transfer protocols	For receiving transfers and circumstances for not accepting transferred patients
Staff Stroke Education Requirements	Core Stroke team approves/determines education, All physicians and staff who provide care to stroke patients show knowledge of protocols, program provides orientation and ongoing education to those caring for stroke patients, all staff are educated on stroke alert process
Provision of Educational Opportunities	Provides education to prehospital staff & 2 education activities to public per year; LIPs and staff present 2 or more educational courses annually for internal staff or individuals external to the comprehensive stroke center (e.g., referring hospitals)
Clinical Performance Measures	Standardized Measures: 8 inpatient stroke measures and 10 comprehensive stroke measures for a total of 18
Research	Participates in patient-centered research that is approved by the IRB
Guidelines	Selects and follows program approved guidelines

Much of the information from the CSC, TSC, PSC and ASRH are attributed to The Advanced Stroke Certification Program Comparison Grid designed by the Joint Commission https://www.jointcommission.org/-/media/tjc/documents/accred-and-cert/certification/certification-by-setting/stroke/2025_strokeprogramcomparisongrid_pdlp_h_4-30.pdf

Thrombectomy Capable Stroke Center (TSC)

Must obtain Thrombectomy Capable Stroke Center Certification by the Joint Commission, or LERN approved accrediting/certification body.

Program Concept	TSC
Eligibility	General eligibility requirements: use of a standardized method of delivering care centered on evidence-based guidelines for stroke care. • Organization must have performed mechanical thrombectomy and post-procedure care for at least 15 patients with ischemic stroke over the past 12 months (or 30 over past 24 months). • Physicians who are credentialed to perform mechanical thrombectomies • Performed 15 mechanical thrombectomies over the past 12 months (or 30 over past 24 months) (procedures performed at hospitals other than the one applying for TSC certification can be included)
Program Medical Director	Extensive expertise and knowledge in care of stroke patients to provide clinical and administrative guidance to program
Acute Stroke Team	Available 24/7, at bedside within 15 minutes
Emergency Medical Services Collaboration	Access to protocols used by EMS, routing plans; records from transfer and prehospital notification
Stroke Unit	Dedicated neuro intensive care and stroke unit beds for complex stroke patients available 24/7; on-site neurointensivist coverage 24/7
Initial Assessment of Patient	Emergency Department physician
Diagnostic Testing Capability	24/7: CT/CTA, MRI/MRA (including DWI), labs, catheter angiography When indicated: carotid duplex ultrasound, TEE
Neurologist Accessibility	24/7 via in person or telemedicine; Written call schedule for attending physicians providing availability 24/7
Neurosurgical Services	Within 2 hours; OR is available 24/7 in TSCs providing neurosurgical services
Telemedicine	Available if necessary
Treatment Capabilities	IV thrombolytics; endovascular therapy, medical management of stroke
Transfer protocols	For receiving transfers and circumstances for not accepting transferred patients
Staff Stroke Education Requirements	Core Stroke team approves/determines education, All physicians and staff who provide care to stroke patients show knowledge of protocols, program provides orientation and ongoing education to those caring for stroke patients, all staff are educated on stroke alert process
Provision of Educational Opportunities	Provides education to prehospital staff & 2 education activities to public per year
Clinical Performance Measures	Standardized Measures: 8 inpatient STK measures and 5 ischemic CSTK measures for a total of 13.
Research	N/A
Guidelines	Selects and follows program approved guidelines

Primary Stroke Center with Endovascular (PSC-E)* and PSC Requirements

Must obtain Primary Stroke Center Certification by the Joint Commission, by the Healthcare Facilities Accreditation Program (HFAP) or other LERN Board approved accrediting/credentialing body.

*PSC-E must also meet the following additional requirement:

- Personnel: Physician credentialed to perform mechanical thrombectomy
- Submit TSC CTSK measures to TJC

Program Concept	PSC and PSC-E
Eligibility	General eligibility requirements: use of a standardized method of delivering care centered on evidence-based guidelines for stroke care.
Program Medical Director	Has extensive expertise and knowledge in cerebrovascular disease to provide clinical and administrative guidance to program
Acute Stroke Team	Available 24/7, at bedside within 15minutes
Emergency Medical Services Collaboration	Access to protocols used by EMS, routing plans; records from transfer and prehospital notification
Stroke Unit	Stroke unit or designated beds for the care of stroke patients
Initial Assessment of Patient	Emergency Department physician
Diagnostic Testing Capability	Required 24/7: CT/CTA, MRI (if used in acute diagnosis of stroke), labs At least one modality for cardiac imaging available to all patients admitted for stroke
Neurologist Accessibility	24/7 via in person or telemedicine
Neurosurgical Services	Within 2 hours; OR is available 24/7 in PSCs providing neurosurgical services
Telemedicine	Available if necessary
Treatment Capabilities	IV thrombolytics and medical management of stroke
Transfer protocols	Protocol for timely transfer of patients to appropriate higher level of stroke care
Staff Stroke Education Requirements	Core Stroke team approves/determines education, All physicians and staff who provide care to stroke patients show knowledge of protocols, program provides orientation and ongoing education to those caring for stroke patients, all staff are educated on stroke alert process
Provision of Educational Opportunities	Provides educational opportunities to prehospital personnel; Provides at least 2 stroke education activities per year to public
Clinical Performance Measures	Standardized Measures: 8 STK measures, 1 outpatient STK-OP measure, and 1 ischemic CSTK measure for total of 10. (PSC-E will have additional CSTK measures)
Research	N/A
Guidelines	Selects and follows program approved guidelines

Acute Stroke Ready Hospital (ASRH) Requirements
(Formerly LERN Level 3 Stroke Hospital)

Certification by an external certifying body is not required, but the LERN Board does recognize certifications from HFAP, the Joint Commission or other LERN Board approved accrediting/credentialing body.

Facilities in this category will provide timely access to stroke care but may not be able to meet all the criteria specified in CSC, TSC, and PSC-E guidelines. These centers will provide acute stroke care in urban and rural areas where transportation and access to time-sensitive treatment are limited and is intended to recognize those models of care delivery that have shown utility including "give and go" for thrombolytics and telemedicine.

Program Concept	**Acute Stroke Ready Hospital**
Eligibility	General eligibility requirements; use of a standardized method of delivering care centered on evidence-based guidelines for stroke care.
Emergency Department	Physician staffed 24/7: Perform initial ER physician evaluation within 10 minutes of patient arrival
EMS Collaboration	Access to protocols used by EMS, routing plans; records from transfer and prehospital notification
Acute Stroke Team	Available 24/7 (in person or via telemedicine) – credentials designated by hospital and arrives within 15 min
CT Scan	Ability to perform CT on site within 25 minutes of patient arrival and interpret within 45 minutes of arrival, 24/7. (LERN encourages CT within 20 minutes and interpretation within 35 minutes to facilitate meeting stretch goal of 45 minute Door to Needle delivery)
Labs	Ability to draw and report results of appropriate lab work within 45 minutes of patient arrival 24/7
Proficiency in delivery of Lytic	a. Ensure that Lytic can be delivered within 60 minutes from arrival. Documentation of ongoing efforts to reduce the median time from arrival to Lytic, in recognition of the new target door-to-needle time of 45min (AHA Target Stroke). b. Timely transfer of appropriate patients for unavailable services, such as endovascular and neurosurgical procedures to an appropriate higher level of care.
Infrastructure	Emergency Room, If the hospital does not have an ICU then patient transfer should be considered after Lytic administration.
Written care protocols and order sets for stroke, including guidelines, algorithms for management of Lytic-related and other hemorrhagic strokes and angioedema, critical care pathways, NIH Stroke Scale training and VAN training.	
Written documentation of a plan for secondary transfer to CSC, TSC, PSC-E, PSC, or other appropriate facility, if resources deemed necessary are not available at the primary destination site.	
Quality of stroke care demonstrated by submission of required data elements to LERN on a quarterly basis.	

*Please note that the LERN Acute Stroke Ready criteria are based on the Joint Commission's (TJC) Acute Stroke Ready Hospital requirements but do not include all of TJC criteria. In addition to the above requirements, The Joint Commission has several additional requirements for certification as an Acute Stroke Ready Hospital which can be found at
The Joint Commission Advanced Stroke Certification- Program Concept Comparison 2025

Stroke Referral Center Requirements
(Formerly Stroke Bypass Hospital)

1. EMS should not bring patients exhibiting signs or symptoms of stroke to a Stroke Referral Center except for instances where the clinical situation requires stopping at the closest emergency department.

2. Participate in LERN Stroke Education

3. Maintain stroke resource binder or internet resource which at a minimum includes the following LERN Guidelines located at https://lern.la.gov/lern-stroke-system/guidelines-and-protocols/
   - ED Provider Emergent Stroke Care Guideline
   - Anticoagulant Associated Intracranial Hemorrhage Guideline
   - Spontaneous ICH Guideline
   - Wake-up/unknown symptom onset stroke guideline

4. Transfer protocol in place for transfer to higher levels of care with a written and agreed upon relationship with a CSC, TSC, PSC-E, PSC or ASRH.

Criteria	Stroke Referral Center	Acute Stroke Ready Hospital	PSC	PSC-E	TSC	CSC
Physician staffed ER 24/7	X	X	X	X	X	X
CT scan available <25 minutes		X	X	X	X	X
CT scan available 24/7		X	X	X	X	X
Lab < 45 minutes		X	X	X	X	X
Proficient Lytic delivery		X	X	X	X	X
Neurological expertise		X	X	X	X	X
Emergent MRI					X	X
Vascular neurology						X
Neurosurgery <2 h			X	X	X	
Neurosurgery < 30 min						X
Interventional				X	X	X
Research						X
Training programs						X
Stroke unit			X	X	X	X
ICU		If no ICU – should “drip and ship” or “give and go” for eligible patients	X	X	X	X
NICU						X
Quality control		Submission of required data to LERN	GWTG/JC/ LERN	GWTG/JC/ LERN	GWTG/JC	GWTG/JC
Protocols for stroke care	X	X	X	X	X	X

GWTG= Get with the Guidelines, American Heart and Stroke Association; JC= Joint Commission

References:
1. The Joint Commission Web Site
2. Alberts MJ, Latchaw RE, et al. Revised and updated recommendations for the establishment of Primary Stroke Centers. Stroke 2011; 42: 2651-2665.
3. Alberts MJ, Latchaw RE, et al. Recommendations for comprehensive stroke centers. Stroke 2005; 36:1597-1618.

4. Acker JE III, Pancioli AM, et al. Implementation strategies for emergency medical services within stroke systems of care. Stroke 2007; 116: 3097-3115.
5. Schwamm LH, Holloway RG, et al. A review of evidence for use of telemedicine within stroke systems of care. Stroke 2009; 40: 2616-2634.
6. Schwamm LH, Audebert HJ, et al. Recommendations for the implementation of telemedicine within stroke systems of care. Stroke 2009; 40: 2635-2660.
7. Schwamm LH, Panicioli A, et al. Recommendations for the establishment of stroke systems of care. Stroke 2005; 36: 690-703.
8. Alberts MJ, Latchaw RE, et al. Revised and updated recommendations for the establishment of primary stroke centers. Stroke 2011; 42: 2651-2665.
9. Demaerschalk BM. Seamless integrated stroke telemedicine systems of care: A potential solution for acute stroke care delivery delays and inefficiencies. Stroke 2011; 42: 1507-8.