LOUISIANA
EMERGENCY RESPONSE NETWORK

Level III Stroke Center Data Collection Requirements

Who?

All LERN Level III Stroke Centers. LERN Level I and II Stroke Centers have reporting requirements to The Joint Commission or other Board approved credentialing agency as a part of the credentialing process. LERN Level IV Stroke Centers have no reporting requirements. LERN Level III Stroke Centers must submit quarterly reports to LERN in order to ensure that these centers are functioning at the standards set for a LERN Level III Stroke Center. These centers who submit data will be considered "EQuIPPED" levels (Electronic Quality Improvement Program Participating Emergency Department).

Why?

The primary aim of LERN's stroke system of care efforts is to develop a comprehensive stroke system of care in Louisiana to provide timely access to proven treatments necessary to reduce death and dependency. Your center has attested to LERN Level III Stroke Center capability. While LERN Level I and II Stroke Centers are held accountable by The Joint Commission or other Board approved credentialing agency through quarterly reports and on-site reviews, LERN seeks to develop a mechanism of confirming that LERN Level III Stroke Centers are functioning as Stroke Enabled Centers. The data collected by the Level III Stroke Centers will provide the LERN Stroke Medical Director with the opportunity to provide direction for improvement, when the need is identified or when assistance is requested. Persons who present with acute stroke deserve the opportunity to receive time-sensitive treatment with intravenous tissue plasminogen activator (IV tPA), which is the foundation of acute stroke care. LERN Level III Stroke Centers must demonstrate the timely administration of IV tPA to eligible patients. The data collection requirements focus on the time stamps for evaluation and management of the stroke patient who presents within the first few hours after onset.

What?

1) **Hospital Identifier**
   A unique letter code given to each hospital to anonymously distinguish one hospital's data from another's. For example, Baton Rouge General Medical Center's identifier may be "AC" while Our Lady of the Lake Regional Medical Center's identifier may be "ABD". This identifier will be assigned by LERN.

2) **Quarter**
   The quarter of the calendar year in which the data is being reported in the format of Q-YY (e.g., 1-15). Data should be submitted once per quarter.

For patient info:	Submit no later than:	Quarter reported
January 1 – March 31	April 30	1-YY (e.g., 1-15)
April 1 – June 30	July 31	2- YY (e.g., 2-15)
July 1 – September 30	October 31	3- YY (e.g., 3-15)
October 1 – December 31	January 31	4- YY (e.g., 4-15)

3) **Date**
The date the patient arrived at the hospital.

4) **Patient ID #**
This shall be a facility-dependent "Dummy ID" so that identifiers can be eliminated from the transferred dataset to LERN. Please use the Hospital Identifier, followed by the quarter, followed by 001. For example, if your hospital identifier is CCC, and it is 3rd quarter of 2017, your first patient's Dummy ID should be: CCC-3-17-001. The next patient would be: CCC-3-17-002, and so on.

5) **Time Last Seen Normal (LSN)**
This is the time (military time) that the patient was last known to be at his or her normal neurological condition. This time = the time of onset for:

   i. a person who was awake at onset and can provide his or her own history and

   ii. a person with witnessed onset.

If the LSN time is unknown, leave the cell blank. If the LSN time is more than 3 hours before the time of arrival, simply enter ">3 hours."

6) **Time of Arrival to the Emergency Department Door**
This is the time (military time) that the patient was first acknowledged as being present at the LERN Level III Stroke Center. If the patient arrives by ambulance, this is the time the ambulance arrives at the LERN Level III Stroke Center. If the patient arrives by private vehicle or as a walk-in, this is the time stamp on the ED triage form.

*If the interval between LSN and arrival to the ED Door is **MORE THAN 3 HOURS**, then no further data elements are required for reporting. Collecting this data will assist in determining the proportion of patients who present to the hospital within the "window of opportunity". Knowing the true numerator for tPA treatment and denominator for your population informs of your possible "missed opportunities" and will serve as a key metric for community education to improve the proportion of patients who present within the "window of opportunity" for treatment. Data collection for #1-6 applies to all patients admitted with ICD-10 diagnoses codes of I63.xxx (Acute Ischemic Stroke), I60.xx (Subarachnoid Hemorrhage), I61.x (Intracerebral Hemorrhage), or G45.9 (Transient Ischemic Attack).*

7) **Time of Arrival of Emergency Department MD**
This is the time (military time) the ED physician first documents a face-to-face encounter with the patient with suspected stroke who presents within the first 3 hours after last seen normal. The **goal is 10 minutes** from the Time of Arrival to the Emergency Department Door.

8) **Time of communication with Neurological Expertise**
This is the time (military time) when a neurological expert is first contacted (in person, by telephone, or

by telemedicine) by a physician at the LERN Level III Stroke Center to discuss the patient with suspected stroke who presents within the first 3 hours after last seen normal. The best practice **goal is 15 minutes** from the Time of Arrival to the Emergency Department Door. A LERN Level III Stroke Center may have a neurological expert who prefers to have the CT scan and laboratory findings available prior to the first communication. LERN strongly recommends that LERN Level III Stroke Centers initiate contact with their neurological expert to inform him or her of the patient with suspected stroke within the first 15 minutes from the Time of Arrival to the Emergency Department Door and document this time. A follow-up communication with the neurological expert can follow when the CT scan +/- laboratory findings are available.

9) **Credentials of Neurological Expertise**
Please indicate: Neurologist, Vascular Neurologist, Emergency Medicine Physician, or Other. A drop down box (pick list) is provided on the electronic data collection tool.

10) **Time of CT Done**
This is the time (military time) of the time stamp on the baseline CT scan of the head. The **goal is 25 minutes** from the Time of Arrival to the Emergency Department Door.

11) **Time of CT Interpret**
This is the time (military time) when the interpretation of the baseline CT scan of the head becomes available by whomever is responsible for reading it (on-site or off-site radiologist or neurological expert, provided he or she is credentialed for interpretation of neuroimaging at the center). The **goal is 45 minutes** from the Time of Arrival to the Emergency Department Door. Each Level III hospital defines who is credentialed to interpret the CT scan via internal hospital by-laws. The LERN Documentation Tool lists the following pick list to facilitate tracking of the individual making the interpretations: Neurologist, Neurosurgeon, ED Physician, Hospitalist, Intensivist, Resident Physician, Nurse Practitioner, Physician Assistant, or Other.

12) **Time to Labs Complete**
This is the time (military time) when the following laboratory values are available for patients with suspected stroke who present within the first 3 hours after last seen normal: platelet count, PT/INR (PTT, when appropriate), and glucose. The **goal is 45 minutes** from the Time of Arrival to the Emergency Department Door.

NOTE: The American Heart Association/American Stroke Association has issued this statement in the 2013 Guidelines for the Early Management of Patients With Acute Ischemic Stroke: "Although it is desirable to know the results of these tests before giving intravenous recombinant tissue-type plasminogen activator, fibrinolytic therapy should not be delayed while awaiting the results unless:

i. there is clinical suspicion of a bleeding abnormality or thrombocytopenia,

ii. the patient has received heparin or warfarin, or

iii. the patient has received other anticoagulants (direct thrombin inhibitors or direct factor Xa inhibitors)."

13) **Time of tPA Bolus**
This is the time (military time) when the bolus of tPA is pushed IV in the patient with suspected stroke who presents within the first 3 hours after last seen normal. The **goal is 60 minutes** from the Time of Arrival to the Emergency Department Door and represents the "Door-to-Needle time". Every minute, up to 2 million brain cells are destroyed during a large artery occlusive stroke. Systematic improvement in the Door-to-Needle time should be a priority for all LERN Level I, II, and III Stroke Centers. The reason(s) for not administering IV tPA should be recorded. Feedback reports from the LERN Stroke Medical Director will push for efforts to reduce the median time from arrival to tPA, in recognition of the new target door-to-needle time of 45min (AHA Target Stroke).

14) **Reason why patient who presents in less than 2 hours of last seen normal (LSN) not treated with tPA**
The LERN Documentation Tool lists the following pick list to facilitate tracking of this metric: Not Present 3 Hrs, Hemorrhage on CT, Active Internal Bleeding, Abnormal PTT, Recent Previous Stroke, Hypodensity on CT, Intracranial Neoplasm, Seizure, Patient / Family Refusal, Unable to treat within 4.5 hr window, Clinical Suspicion of SAH, Other Known Bleeding Diathesis, Full Dose Anticoagulation, Recent Surgery, AVM, Minimal Deficit, Blood Glucose too high or low, Elevated BP, Not Present in 4.5 Hours, History of Past ICH, INR > 1.7, Platelet Count Low, Recent Serious Trauma, Unsecure Cerebral Aneurysm, Symptoms resolved, High NIHSS Score, or Other.

15) **Reason why tPA administration was delayed**

Recognizing that at times there are justifiable reasons for delay in tPA administration causing facilities to miss the 60 minute window, the following pick list has been added:

- Hypertension requiring aggressive control with IV medications
- Further dx evaluation to confirm stroke in patient w/ blood glucose <50, seizures, or major metabolic disorders
- Timeline evolved (defined as the estimated time of last seen normal changed such that a patient who was initially thought to be excluded based on time was later determined to be within the window for tPA) or other delay in determining eligibility
- Patient/Family Consent
- Delayed diagnosis
- Management of concomitant emergent/acute conditions such as cardiopulmonary arrest, resp failure (requiring intubation)
- Equipment related delay

Date Submission to LERN

LERN expects to receive quarterly data report including Data Elements 1-3 for all patients presenting with suspected stroke and Data Elements 4-9 for patients with suspected stroke who presents within the first 3 hours after last seen normal, with a 30 day maximum interval between close of a quarter and receipt of the data.
Email the completed data form quarterly to Jasmine.Jackson3@la.gov.

Date of end of quarter	Date data report is last acceptable
March 31st, 2014	April 30th, 2014
June 30th, 2014	July 30th, 2014
September 30th, 2014	October 31st, 2014
December 31st, 2014	January 31st, 2014

How much time is involved in the data collection process?

The data collection (if retrospective) would take a maximum of 20 minutes per case, for patients who present within the first 3 hours from last seen normal. For cases only requiring Dummy ID, time of last seen normal, and time of Arrival to the Emergency Department Door, each case would take a maximum of 5 minutes.

To get a better estimate of your time commitment:

1. Ask one of your hospital coders to pull a list of all patients with stroke diagnosis codes over the last 3 month period. The *ICD-10 diagnoses codes of I63.xxx (Acute Ischemic Stroke), I60.xx (Subarachnoid Hemorrhage), I61.x (Intracerebral Hemorrhage), or G45.9 (Transient Ischemic Attack)*.
2. Get with the Guidelines (GWTG) estimates of % patients presenting within 3 hrs is <25%. Calculate what 25% of all patients with stroke diagnosis codes would represent. This would be an estimate of total quarterly sample size.
3. Divide that # by 3 (3 cases can be collected per hour) => estimated # hours per quarter devoted to the process of data collection.

Who should be responsible for collecting this data?

This will vary and is to be determined by each hospital. Some facilities assign data collection to the following existing employees:

- Stroke director
- Stroke coordinator
- Quality department
- Emergency department nursing director
- Emergency department clinical supervisor
- Emergency department charge nurse

What are your options if you decline participation?

1. Change attestation to LERN Level IV
2. Accept designation of LERN Level III-Not EQuIPPED

How can you improve the acquisition of these data elements?

One tip from your LERN Stroke Medical Director is to create a template in the ED medical chart (whether paper or electronic) that includes these timestamp data points and encourage your ED staff (MD and RNs) to document the data points that consume time when collected retrospectively (time last seen normal, time of Arrival of Emergency Department MD, time of communication with Neurological Expertise).

******LERN Stroke Data will be accumulated and organized in summary form. LERN will not release any identified data related to a participating hospital. If disseminated, LERN data will be in aggregate form.******