



Rancho Los Amigos National Rehabilitation Center

ADMINISTRATIVE POLICY AND PROCEDURE

SUBJECT: CODE STROKE PROTOCOL

Policy No.: B883
Supersedes: September 1, 2018
Reviewed: May 1, 2022
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PURPOSE:

To establish an In-patient “Code Stroke” protocol that will guide the management of patients found to have an acute neurological deficit who might benefit from acute thrombolytic or endovascular therapy.

POLICY:

The Code Stroke Protocol designates key participants in the Code Stroke process, defines their roles and responsibilities, and guides providers through a streamlined decision-making process to ensure that patients are receiving the appropriate therapeutic interventions for stroke.

PROCEDURE:

Key participants:

Primary RN, ICU Nurse, Intensivist/hospitalist, Neurology Resident and Attending (Neurology team is available via phone after hours), Operator, CT technician, Radiologist, Pharmacist, Nursing House Supervisor, Respiratory Therapist

- As soon as a new neurologic deficit is discovered, the **primary RN will:**
 - Page patient’s primary/covering physician
 - Call the ICU Nurse
 - Obtain vital signs and blood glucose level
- **ICU Nurse:**
 - Evaluates the patient as soon as possible and obtains a Last-Known Well-Time (LKWT)
 - Performs National Institute of Health Stroke Scale (NIHSS)
 - ICU Nurse/Primary nurse will notify the following:
 - Neurology resident on-call
 - Acute Stroke Neurology attending on-call
 - The intensivist, if after hours
- **Nursing:**
 - Refer to Attachment A – Standardized Procedure
 - Checks ABCs, HOB at 30⁰, ensure bedrest
 - Administers Oxygen to maintain O₂Sat at 94% or above
 - Place bilateral antecubital 18g IVs

EFFECTIVE DATE:

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

APPROVED BY:

- Draw STAT BMP, CBC, INR, PT, PTT, type and screen, troponin
- Obtain 12 lead ECG
- Obtain contact # for medical decision-maker
- Nursing to accompany patient to CT and remain with patient at all times

KEY POINT: *Labs and ECG should not delay CT*

- **Neurology:**
 - Evaluates the patient as soon as possible and confirms LKWT
 - If not in-house, neurology will communicate directly with intensivist
 - If Neurology suspects new onset stroke, a Code Stroke will be activated by dialing 544
 - Enters orders as needed (e.g. CT, CTA, MRI)
- **Operator:**
 - Announces Code Stroke overhead
 - Pages the following:
 - CT Technician on call
 - Respiratory Care Practitioner
 - Administrative Nursing Supervisor
 - Calls Pharmacy by phone
- **CT Tech:**
 - CT tech clears table for incoming code stroke patient
 - Notifies Radiologist
- **Radiology:**
 - Remains on stand-by to read study
 - Communicates with Neurologist or Intensivist with results
- **Pharmacist:**
 - Delivers alteplase to patient location (Prepares alteplase for pick up if after hours)
 - Remains on stand-by for alteplase preparation if needed

Post CT Scan

- **Neurology:**
 - Reviews scan and communicates with radiologist on-call
 - Orders antihypertensive if indicated
 - Orders alteplase if indicated
 - Discusses risks and benefits with patient/family
 - Obtains informed consent if between 3-4.5 hour window from LKWT
- **Pharmacist:**
 - Prepares alteplase for administration if ordered
- **ICU RN:**
 - Administers antihypertensive as ordered
 - Administers alteplase as ordered after completing an independent double check with a second RN, MD or pharmacist.
 - If patient receives alteplase, nurse follows the Department of Nursing ICU Policy and Procedure ICU010 – Thrombolytic Therapy for Acute Ischemic Stroke

Physician guide to decision-making:

- **Determine if alteplase candidate** (must receive within 4.5 hours of LKWT – the earlier the better):
 - Review chart and history with patient
 - Obtain NIHSS
 - Confirm inclusion/exclusion criteria
 - Direct BP management
 - Accompany patient to CT, review CT to exclude ICH, calculate ASPECTS (consider score ≥ 6 for alteplase)
 - Notify pharmacist to deliver and mix alteplase to patient location and place order
 - If decision is made to give alteplase, rapid administration should be prioritized before pursuing other testing
- **If Patient identified as alteplase candidate:**
 - Neurology resident or intensivist and pharmacist calculates weight-based dosing.
 - Obtains informed consent if indicated
 - 0-3 hours: verbal from patient or family member if possible
 - 3-4.5 hours: MUST obtain written consent from patient or family member (state not FDA-approved but AHA/ASA guideline recommended).
 - For patients who lack capacity, refer to policy B519 - Informed Consent
- **Determine if interventional candidate:**
 - If LWKT <24 hours and suspected basilar or large vessel occlusion, and/or no improvement after alteplase administration,
 - Review chart/history,
 - Evaluate for contraindications and discuss with Neurology attending on call
 - If potential candidate, Neurology will transfer to Keck or LAC via USC Stroke Line (323-442-6111)
- **Determine if ICH:**
 - Obtain CT head
 - Refer to DHS ICH Expected Practice
 - Keep HOB elevated to >30 degrees
 - Address blood pressure
 - Review labs for coagulopathy
 - Identify underlying cause/factors predisposing to hemorrhage
 - Consider osmotherapy if elevated intracranial pressure suspected
 - Consider coagulopathy reversal if indicated
 - Notify Neurosurgery on-call
 - Arrange ELTC transfer to LAC Neuro ICU via USC Stroke Line if indicated

See attached “Rancho Los Amigos Code Stroke Flowchart”

NEW: September 2018
Reviewed: May 2022

RANCHO LOS AMIGOS NATIONAL REHABILITATION CENTER

Standardized Procedure
Acute Stroke - Registered Nurse (RN) Functions

Purpose

To provide prompt and effective care to inpatients with suspected new onset stroke.

Policy Statements

This standardized procedure has been established by the Critical Care Committee for use during a suspected stroke situation in Rancho Los Amigos National Rehabilitation Center. It is based on guidelines developed by the American Heart Association (AHA) in partnership with the International Liaison Committee on Resuscitation (ILCOR).

This standardized procedure was reviewed and approved by the Critical Care Committee, Pharmacy and Therapeutics Committee, ICU/PCU Collaborative Council, Nursing Executive Council, Medical Executive Council and the Executive Council. Reviews and revisions to the content will be conducted as needed but at a minimum of every three years.

RN Training and Education

Valid California License as a Registered Nurse – Refer to Nursing Policy A325- License/Certification Verification Renewal

Current BLS Certification - proof of which will be maintained in the education folder

RN Functions

The following functions by the registered nurse will be carried out on patients who have developed signs and symptoms of stroke within the last 24 hours.

The nurse will perform or direct others in the following:

1. Place - 18G antecubital peripheral intravenous lines bilaterally
2. Start 0.9% NS at 100mL/hr via one of the peripheral lines
3. Send the following labs STAT
 - a. CBC
 - b. PT/PTT/INR
 - c. Type and Screen
 - d. BMP
 - e. Troponin
4. 12 lead ECG
5. Provide supplemental oxygen to maintain saturation at 94% or above
6. Obtain blood glucose level

Records

All actions, interventions and treatments will be documented in the electronic medical record.

Rancho Los Amigos Code Stroke Flowchart

