

NIHSS

Time to complete the examination should take approximately 7-10 minutes. Scoring is done using a 0-2, 0-3, or 0-4 scale. The lower the score the less severe the stroke.

>25 Very severe neurological impairment

5-14 Moderate to severe neurological impairment

<5 Mild impairment

NIHSS

- 1a- Level of consciousness (loc)
- 1b-LOC questions
- 1c- Loc commands
- 2. - Best gaze
- 3 -Visual
- 4 - Facial Palsy
- 5 - Motor arm
- 6 - Motor leg
- 7 -Limb ataxia
- 8 -Sensory
- 9 - Best Language
- 10 - Dysarthia
- 11 - Extinction and inattention

Stroke Program

COMP.0686

**Little Company of Mary Hospital
and Health Care Centers**



Acute Stroke Program

Acute Stroke Care is delivered in the ED, ICU, Telemetry and 2 South, a rhythm surveillance medical unit, by educated, competent staff here at LCMH. Beginning 12/08, 2 South was designated as our Stroke Unit. The Stroke Unit Medical Director is Dr. Michael Schwartz, MD and the Stroke Coordinator is Ann Miller, DNP, APN.

Interdisciplinary, specialized care is overseen and provided by ED Staff, ED Physicians, Attending Physicians, Consulting Physicians, Neurologists, Pharmacists, Speech Language Pathologists, Physical Therapists, Occupational Therapists, Dietary, Case Management Social Workers, CT Technicians, Laboratory Staff, Radiology Staff, MRI Staff, U/S Staff, Echocardiography Technicians, ECG Technicians

If the Physician orders TPA for a patient with an acute ischemic stroke, the page operator is notified to page a "CODE BRAIN" with patient location for immediate Rapid Response Team notification and response. The RRT team is comprised of an ICU RN, Nursing Supervisor, Stroke Coordinator, and ED/House Physician

*For visitors & patients with s/s of acute stroke outside inpatient units: PAGE CODE 70/patient location; Code team will transport to ED upon stabilization; for patients on medical/surgical units with acute s/s of stroke: PAGE Rapid Response Team (RRT)/patient location.

Some TIPS for caring for patients with acute symptoms of Stroke/TIA:

- Keep patient NPO until the Dysphagia Screening is completed to prevent aspiration. Failed Dysphagia Screenings are followed by NPO and SLP Evaluation Bedside Swallow orders. Elevate the HOB at least 30 degrees if not contraindicated.
- Document patient's last known "well time" for potential TPA candidates.
- Strict monitoring of Neurologic Status & Vital Signs per Acute Stroke Protocol and call physician as needed.
- Decrease or prevent Venous Thromboembolism risk by implementing VTE protocol.
- For an elevated LDL (greater than 100), a statin medication will be ordered (unless contraindicated) by the physician prior to patient discharge.
- Provide good skin care, frequent turning and/or early ambulation to prevent decubitus ulcers

Please distribute the comprehensive Stroke Patient Education Folder (yellow) to our stroke patients and/or their family.

Based on the patient's personal risk factors, share appropriate stroke education materials, which are available in the Stroke Education File Box located on your unit

Enclosed in this packet are the following documents for your review:

- Acute Stroke Program Overview
- Rapid Response Team ~ Patient Care Services P&P
- Emergency Department or Inpatient Unit Acute Stroke/TIA/Traumatic Brain Injury Protocol
- Acute Ischemic Stroke Tissue Plasminogen (TPA) Treatment Consent Form (revised 12/2010)
- TPA Patient Information
- Acute Ischemic Stroke (No TPA) TIA Admission Orders
- ICU Admission Orders: Acute Ischemic Stroke – Post PTA
- ICU Hemorrhagic Stroke Orders
- Stroke Heparin Protocol – Physician Orders
- Acute Stroke Interdisciplinary Collaborative Plan of Care
- Acute Stroke Initial Dysphagia Screening Tool for RNs
- NIHSS Stroke Assessment/Evaluation

Approximately one month post discharge, a nurse from the hospital may contact the patient/family for feedback regarding stroke care experiences at LCMH.

Title: Acute Stroke Program

Date Implemented: 12/2008
Date Revised: 10/2010

General Information:

Acute Stroke Program is an interdisciplinary program for the adult population lead by the Stroke Program Medical Director. Acute Stroke Care is delivered in the Emergency Department, Adult ICU, Telemetry units and 2 South, the designated Stroke Unit. Interdisciplinary health care team members provide consultative initial and ongoing patient assessment and evaluations throughout the acute care length of stay.

Scope of Practice and Service

Initial Acute Stroke care delivery based on evidence based practice recommendations specific to the adult patient (18 years or older) population presenting with signs and symptoms of acute stroke/TIA/traumatic brain injury will be provided by ED team for patients from the field and the Rapid Response Team for inpatients. Patients with signs and symptoms of acute stroke / TIA will be directed to the Emergency Department prior to admission for evaluation.

ED / Inpatient Acute Stroke Protocol will be initiated and followed with:

Timely Acute Stroke Protocol Plain Brain CT will be performed/interpreted by Radiologist per established standards.

Timely Acute Stroke Protocol Labs (Chem, CBC, PT/PTT, INR) ECG, and PCXR will be performed/results available and PCXR will be performed/results available.

Emergent acute stroke diagnosis and treatment will be initiated Interdisciplinary plan of care throughout hospital length of stay Acute Stroke Program Outcomes will be aggregated, shared and reported at organizational wide established committees.

Community Education focused on risk factor education, risk factor medication compliance, stroke prevention, recognition of signs and symptoms of acute stroke and "911" emergency medical systems intervention will be provided.

Policy:

1. For patients with acute stroke, TIA or traumatic brain injury symptoms, initiation of the ED/Inpatient Acute Stroke Protocol will be implemented with rapid diagnostics including stat Acute Stroke Protocol Plain Brain CT, stat labs, ECG and PCXR in conjunction with ED and/or House Physician evaluation.

2. Code Brain is activated as an overhead page and Rapid Response team page for the acute ischemic stroke patient who is eligible for TPA therapy, meeting inclusion criteria and without exclusions, and has a physician order to administer TPA treatment. TPA is a weight based thrombolytic with 10% of total weight based dose administered as an IV bolus and the remaining 90% of the total weight based dose administered over one hour, on an IV pump, as an infusion.

3. Patients will be admitted to ICU, Telemetry or 2 South based on acuity or transferred to Tertiary Center as needed for higher level of definitive care delivery as needed (patients requiring emergent/urgent neurosurgical intervention, interventional neuro-radiology procedures for example).

3a. Any patient admitted to a unit other than those listed above, will be assessed by RNs educated in the care of acute stroke patients, ie., NIHSS & Dysphagia screening.

4. Patients admitted with acute stroke will follow evidenced based practice admission orders based on initial evaluation and diagnostic results

5. Interdisciplinary Team initial assessments, evaluation and consultation will be individualized and provided as needed.

6. Weekly Stroke Rounds with interdisciplinary team members, lead by Acute Stroke Program Medical Director or designee are available for team discussions, collaboration and education.

7. Patients will be provided with individualized stroke / TIA education including personal risk factor identification and education, 911 activation, stroke prevention, smoking cessation and counseling, stroke warning signs and symptoms, discharge medication education and the importance of compliance and follow up care needs.

8. Case management consultation will be provided for individualized post hospital continuum of care needs.

9. Patient Satisfaction outcomes will be obtained, shared and integrated into Acute Stroke Program.

10. Initial and Annual Housewide and RN Education offerings (ED, ICU, Telemetry and 2 South) are provided. Evidence based competency validation for stroke unit nurses will be provided on an initial and annual basis.

11. Acute Stroke Program Outcomes will be aggregated, shared and reported at organizational wide established committees.

12. Acute Stroke Medical Director and Stroke Coordinator will maintain certification continuing education annual requirements.

Reviewed and approved:

Jane Sullivan, RN, CNO Patient Care Services
Michael R. Schwartz, MD Program Medical Director
Ann Miller, RN, APN Program Coordinator

PATIENT CARE SERVICES

Policy No.: PCS-1318
 Date Implemented: 01/01/06
 Date Revised: 02/23/10
 Job Category: RN

TITLE: RAPID RESPONSE TEAM (RRT)

GENERAL INFORMATION:

The Rapid Response Team is available 24 hours a day / 7 days per week. The Rapid Response Team will respond for inpatients who become unstable or their condition quickly deteriorates.

The RRT consists of a ICU RN, Respiratory Therapist, Nursing Supervisor, and House Physician (as needed). The goal of the RRT is to intervene early, thereby preventing or decreasing the Code 70 volume and ultimately improve mortality.

INDICATIONS - NOT ALL INCLUSIVE

1. Patient becomes hemodynamically unstable.
2. Patient experiences an acute change in level of consciousness.
3. Patient becomes weak, diaphoretic.
4. Patient becomes short of breath and/or has difficulty breathing.
5. Patient develops chest pain
6. Patient "just doesn't look right, something seems wrong - not sure what"
7. Code 90/PCI (STEMI) pages (RRT is simultaneously paged)
8. Acute Stroke Symptoms (inpatients) for activation of Acute Stroke Protocol

Exclusions warranting CODE 70 activation:

1. Inpatients or outpatients in Diagnostic Imaging or Interventional Suites (for example Cath Lab, Spec Procedures Radiology, GI Lab, Radiology, CT, Nuclear Medicine, MRI, Out Patient Services, Out Patient Behavioral, Dialysis, Health, Radiation Oncology, Cancer Center 1st Fl, Wound Care, Physical Therapy, Sleep Lab, Cardiology, Ultrasound, Mammography)
2. LCM Hospital Department Offices and Visiting Centers (for example Business office, Medical Records, Chapel, Cafeteria, Gift Shop, Pastoral Care, Human Resources, Medical Staff Office, Quality Resource Management, Administration, Patient Care Services, Warehouse, BioMedical, Engineering, Housekeeping, MDC, Purchasing, Security, Admitting, Case Management, Telecommunications, Volunteer Department, Radiology Offices)

PROCEDURE:

1. Activate RRT by dialing page operator 5960.
2. Request "Rapid Response Team to Room: _____".
3. Page Operator will page and overhead page team members.
4. RRT members will respond within FIVE (5) MINUTES.
5. Primary RN will have an active role and work collaboratively with the RRT.
6. Have readily available patient's chart, medications, and history (This helps provide patient with quick interventions and in determining the patient's disposition in a rapid manner).

AFTER COMPLETION OF MET RESPONSE:

1. Document in Meditech
 - a. Add RRT/SBAR (Situation, Background, Assessment, Result) Intervention Documentation is completed by the RN that called the Rapid Resonse.

LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS

EMERGENCY DEPARTMENT or INPATIENT UNIT
ACUTE STROKE/TIA/TRAUMATIC BRAIN INJURY PROTOCOL

CHECK OFF ORDERS THAT APPLY

Initial Stroke Orders to be done STAT:

- * Document last time known to be asymptomatic:
* CBC, CHEM 8/6, CPK, Magnesium, PT/PTT/INR
* CT Brain Acute Stroke Protocol Scan
* CPK MB/TROPONIN
* Glucose (Accucheck)
* ECG
* Urine drug abuse, ETOH
* Urine Pregnancy (all menstruating women)
* Perform Neurological Assessment (GCS and pupil assessments)
() Portable CXR (CXR Port Stroke Protocol)
() ESR, UA
() Brain MRI Diffusion Weighted Imaging Scan

- () Other Labs:
* Continuous Cardiac Monitoring
() IV NS Lock
* Continuous Pulse Oximetry: titrate O2 to maintain saturation greater than 92%

- () IV NS Infusion @ mL/hour, add Stopcock @ insyte hub for blood draws
* Bed Rest
* Head of Bed elevated 30 degrees unless contraindicated
* NPO
* Perform dysphagia screen prior to oral intake or PO medications
* Document NIH Stroke Scale Score on the NIHSS Stroke Assessment/Evaluation FLOWSHEET (see flowsheet with directions for scores)
* Notify Physician if neurological assessment declines and/or increasing NIH Stroke scores

Document Tissue Plasminogen Activator (TPA) Exclusion Guidelines (Check all that apply):
IF ANY EXCLUSION, DO NOT GIVE TPA

- () Patient does not meet timeframe criteria for t-PA UNDER 3 HOURS from symptom onset EXCLUSION CRITERIA:
() NIH stroke score over 22
() Rapidly improving or minor stroke symptoms
() Glucose < 50 mg/dL or > than 400 mg/dL preceding week
() CT Scan showing evidence of intracranial hemorrhage
() History of seizure at stroke onset
() Platelet count less than 100,000/mm3 (TPA can be started before CBC results but should be discontinued if platelet count is < than 100,000/mm3)
() Prior history of intracranial hemorrhage
() Major surgery or other serious trauma during preceding 2 weeks
() Gastrointestinal or urinary tract hemorrhage during preceding 3 weeks
() Sustained SBP greater than 185 mmHg or DBP greater than 110 mmHg
() Active Internal bleeding
3-4.5 HOURS from symptom onset EXCLUSION CRITERIA (in addition to above criteria)
() > 80 years old
() Diabetes plus previous history of stroke
() Symptoms of a subarachnoid hemorrhage
() Arterial puncture at non-compressible site or LP during preceding 1 week
() Stroke or serious head trauma during preceding 3 months
() Pregnancy
() Currently taking dabigatran (Pradaxa)
() Currently taking oral anticoagulants with INR greater than 1.7
() Heparin during the preceding 48 hours with associated elevated aPTT
() Clinical presentation suggests pericarditis or AMI at time of TPA infusion
() Intracranial Neoplasm, arteriovenous malformation or aneurysm
() Any oral anticoagulant regardless of INR

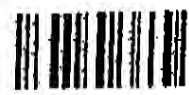
Physician Date Physician Time Physician Signature Physician Number
T.O. Date T.O. Time T.O. Physician Name T.O. RN Name
Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #27210
OE.ORD.zcus.27210
Revised 4/4/11



Physician Order

M00000221
V00000307025 TEST, /BIGAIL
Age: 54 Sex: F



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LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS
EMERGENCY DEPARTMENT or INPATIENT UNIT
ACUTE STROKE/TIA/TRAUMATIC BRAIN INJURY PROTOCOL

Consider alternative therapies and possible transfer for the following patients:

- Patients outside therapeutic window for treatment with TPA
- Patients with contraindications to TPA
- Brainstem strokes
- Cerebellar strokes
- Massive strokes
- Patients with large diffusion/perfusion mismatch
- Neuro-Radiologic procedures can be considered on these patients up to 8 hours after stroke onset for the anterior circulation and up to 12 hours after posterior circulation strokes

Basic Stroke Protocol

Orders: If NPO, do NOT give Medications orally

- () Aspirin 325 mg PO or 300 mg suppository PR x 1
- () Clopidogrel (Plavix) 75 mg PO x 1 (consider in aspirin intolerant or aspirin allergy)
- () Clopidogrel (Plavix) 300 mg PO x 1 (consider in aspirin intolerant or aspirin allergy)
- () Admit - Transfer to Stroke Unit
- () Admit - Transfer to Telemetry Unit
- () Admit - Transfer to ICU

OR
TPA Protocol WHEN PHYSICIAN ORDERS TPA, contact page operator at x5960 to page CCDE BRAIN along with patient location (unit)

Date/Time Code Brain Page: _____ Date/Time of Code Brain Response: _____

() Pt/Family received Acute Ischemic Stroke TPA Treatment Patient and Family Education Sheet.

Prior to TPA administration, Arterial Hypertension Management Orders:

Blood Pressure Level: SBP >185 mmHg or Diastolic B.P. > 110 mmHg

- () Labetalol 10 to 20 mg IV over 1 to 2 minutes, may repeat x 1
- () Nicardipine Infusion: 5 mg/hour. Titrate up by 2.5 mg/hour at 5 to 15 minute intervals. Maximum dose 15 mg/hr; when desired blood pressure attained, reduce to 3 mg/hour.
- () Nitropaste 1 to 2 inches (consider removal if headache develops or worsens)

If blood pressure does not decline and remains > 185/110 mmHg, DO NOT administer TPA

Standard TPA ORDERS:

Document patient's ACTUAL weight in Kg _____

Add stopcock to IV site

IV TPA TOTAL dose: (0.9 mg/Kg; max dose 90 mg(weight based max dose);mix sterile water and TPA as 1:1 dilution)

Give _____ mg (10% of total dose) by IV bolus over 1 minute

Give _____ mg (90% of total dose) by continuous IV infusion over 60 minutes

Do NOT use automated (NIBP) blood pressure cuff

Document B/P and Glasgow Coma Score (GCS) every 15 minutes for 2 hours, then every 30 minutes for 6 hours, then hourly until 24 hours after treatment.

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

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Physician Order

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LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS

EMERGENCY DEPARTMENT or INPATIENT UNIT
ACUTE STROKE/TIA/TRAUMATIC BRAIN INJURY PROTOCOL

Blood Pressure Management: During and after TPA administration:

Monitor B.P. every 15 minutes during treatment and then for another 2 hrs, then every 30 minutes x 6 hrs, then hourly until 24 hours after treatment.

Blood Pressure Levels:

SBP 180 - 230 mmHg or Diastolic B.P. 105 to 120 mmHg:

Titrate to maintain systolic blood pressure at _____ and diastolic blood pressure at _____

() Labetalol 10 mg IV over 1 to 2 minutes, may repeat every 10 to 20 minutes, maximum dose of 300 mg

() Labetalol 10 mg IV followed by an infusion at 2 to 8 mg/minute

SBP > 230 mmHg or Diastolic BP 121 to 140 mmHg:

Titrate to maintain systolic blood pressure at _____ and diastolic blood pressure at _____

() Labetalol 10 mg IV over 1 to 2 minutes, may repeat every 10 to 20 minutes, maximum dose of 300 mg

() Labetalol 10 mg IV followed by an infusion at 2 to 8 mg/minute

() Nicardipine infusion, 5 mg/hour, titrate up to desired effect by increasing 2.5 mg/hour every 5 minutes to maximum of 15 mg/hour.

() If blood pressure not controlled, consider sodium nitroprusside continuous infusion 0.1 - 10 mcg/kg/min

If neuro status deteriorates, or headache, STOP TPA and obtain Stat Acute Stroke Protocol Plain Brain CT Scan (no contrast). If CT is negative for bleeding, resume the TPA per protocol; If positive for bleeding, follow Hemorrhagic STROKE PROTOCOL (SEE BELOW)

NO Antithrombotics for 24 hours from start of TPA infusion

Avoid arterial puncture and frequent venous punctures for 24 hours from start of TPA

Admit to ICU

Hemorrhagic Stroke Protocol ORDERS:

Type and Screen, Fibrinogen, fibrin split products, thrombin time

Notify Neurosurgeon (if available-patient stable enough to be admitted to LCMH)

Document B.P. and GCS every 15 minutes for 2 hours; then every 30 minutes for 6 hours

Medical Treatment: Consider

Fosphenytoin (Cerebyx) (18 mg PE/Kg) _____ mg loading dose IV (PE = phenytoin equivalents)

Mannitol 20% bolus _____ Gm. IVPB over 30 minutes (usual dose range 0.25 Gm./Kg. - 1Gm./Kg.)

Control of Elevated Blood Pressure:

Titrate to maintain systolic blood pressure at < 180 mmHg and Mean Arterial Pressure < 120 mmHg

() Labetalol 5 to 20 mg IV every 15 minutes up to 100 mg/hour, continuous IV infusion rate of 2 mg per minute (up to 8 mg/minute); (maximum 300 mg/day)

() Nicardipine continuous IV infusion of 5 mg per hour. Titrate up to desired effect by increasing 2.5 mg per hour every 5 minutes; maximum of 15 mg per hour

() Esmolol 250 mcg/Kg. as a loading dose. Maintenance: 25 - 300 mcg/Kg./minute.

() If blood pressure still not controlled consider Sodium Nitroprusside 0.1 to 10 mcg/kg min continuous infusion

() Enalapril 0.625 mg then 1.25 to 5 mg IV push every 6 hours

() Hydralazine 5 to 20 mg IV push every 30 minutes or continuous IV infusion 1.5 to 5 mcg/Kg. per minute.

Check B.P. every 5 minutes while administering medication and every 15 minutes thereafter x 2 hours

* Keep head of Bed elevated 30 degrees, maintain neck in neutral alignment

* No Antithrombotics

* Admit to ICU or transfer to tertiary center

Physician Date Physician Time Physician Signature

Physician Number

T.O. Date T.O. Time T.O. Physician Name

T.O. RN Name

Unit Secretary Signature

Noted RN Signature

Date & Time

3rd Shift Initials

Form #27210
OE, ORD, zcus, 27210
Revised 4/4/11



Physician Order

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LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS
EMERGENCY DEPARTMENT or INPATIENT UNIT
ACUTE STROKE/TIA/TRAUMATIC BRAIN INJURY PROTOCOL

Coagulopathy/Intracranial Hemorrhage:

Warfarin coagulopathy should be corrected as soon as possible with:

- () Vitamin K 10 mg IV slowly over 10 minutes
 - () Fresh Frozen Plasma: 10-20 mL/Kg.; usual dose 4-5 units (may need to be followed by diuretics).
- If INR is greater than therapeutic range and/or clinical condition deteriorates, consider:

- () rFVIIa (Novo-7): Discuss with Neurosurgery. Dose: _____ mcg IV bolus over 2 - 5 minutes
Usual dose: 41 - 90 micrograms per Kg. (pharmacy will round dose to nearest 100mcg)
May repeat in 2-4 hours if clinically warranted

Control of Elevated Blood Pressure: Aneurysmal Subarachnoid Hemorrhage:

Titrate to maintain systolic blood pressure < 140 or if systolic is 140 - 230 mmHg or if diastolic is 90 - 120 mmHg for two readings 5 - 10 minutes apart:

- () Nicardipine continuous IV infusion of 5 mg/hour. Titrate 2.5 mg/hour every 5 minutes up to max of 15 mg/hr.
- () Labetalol 2 mg/minute up to 8 mg/minute (maximum 300 mg/day) IV continuous infusion.
- () Esmolol 250 mcg/Kg. loading dose, then 25 - 300 mcg/Kg./minute
- () If B.P. still not controlled, consider Sodium Nitroprusside 0.1 - 10 mcg/kg/min continuous infusion.

OR
Traumatic Brain Injury Protocol:

- * Document time of injury: _____
- * NPO
- * Perform dysphagia screen prior to oral intake or PO medications
- * Document NIH Stroke Scale Score on the NIHSS Stroke Assessment/Evaluation FLOWSHEET (see flowsheet with directions for scores)
- * Notify Physician if neurological assessment declines and/or increasing NIH scores
- * Blood Pressure and GCS every 15 minutes x 2 hours then every 30 minutes x 6 hours
- * Consider Fosphenytoin (Cerebyx) 18mg PE/KG _____ mg loading dose IV (PE = phenytoin equivalents)
- * Consider Mannitol 20% Bolus _____ Gm IVPB over 30 minutes (usual dose range 0.25 Gm/Kg - 1 Gm/Kg)

Traumatic Brain Injury with Coagulopathy/Intracranial Hemorrhage:

Warfarin coagulopathy should be corrected as soon as possible with:

- () Vitamin K 10 mg IV slowly over 10 minutes
- () Fresh Frozen Plasma: 10-20 mL/Kg; usual dose 4-5 units (may need to be followed by Diuretics)

If INR is greater than therapeutic range and/or clinical condition deteriorates, consider:

- () rFVIIa (Novo-7): Discuss with Neurosurgery. Dose: _____ mcg IV bolus over 2 - 5 minutes
Usual dose: 41 to 90 micrograms per kg. (pharmacy will round dose to nearest 100 mcg)
May repeat in 2-4 hours if clinically warranted

Hemorrhagic Strokes/Traumatic Brain Injury

Consider transfer to tertiary center
May be admitted to LCMH but only after clearance from neurosurgery (if available)

Physician Date	Physician Time	Physician Signature	Physician Number
T.O. Date	T.O. Time	T.O. Physician Name	T.O. RN Name
Unit Secretary Signature	Noted RN Signature	Date & Time	3rd Shift Initials

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Revised 4/4/11



Physician Order

M00000221
V00000307025 TEST, ABIGAIL
Age: 54 Sex: F



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**Little Company of Mary Hospital and Health Care Centers
Acute Ischemic Stroke rTPA (Tissue Plasminogen Activator) Treatment**

Consent Form

The Emergency Physician or House Physician has determined that you are suffering from an acute ischemic stroke. An Ischemic Stroke is caused by a clot blocking blood flow to a portion of your brain. The FDA (Food and Drug Administration) has approved a medicine, Tissue Plasminogen Activator (TPA) that may be given to break up the clot and allow blood to flow again to that part of your brain. The Physician has determined that your symptoms started more than 3 hours and less than 4.5 hours ago and that you do not have exclusions to receiving thrombolytic therapy. To receive the drug you will need to consent to this treatment after reviewing the risks and benefits. You will receive all other standard treatments for your stroke whether or not you consent to this treatment.

TPA is administered intravenously through a weight-based protocol.

General Information

You may recover to a significant degree or even completely without this treatment. There is also a possibility that this stroke may be fatal.

Benefits

If the therapy works you have a 1 in 8 chance that you will be better off than without the medicine. Of the people who show improvement, patients are 30% more likely to recover with little or no disability if treated.

Risks

There is a 7 in 8 chance that you will be no better off if treated. You may have bleeding complications such as: bleeding from gums; bleeding in the urinary tract. You may bleed into internal organs. There is a 1 in 17 (6%) chance that therapy will produce bleeding in the brain. (There is a < 1% chance of bleeding if you are not treated with this drug – i.e. with standard treatment only). There is a 1 in 33 (3%) chance that this bleeding will be fatal. There is no difference in death rates between those that are treated and those that are not.

This is a difficult decision to make, however it must be made as quickly as possible since we must administer the medicine within 4.5 hours of the onset of symptoms.

The above information was explained in detail by the Physician.

Date: _____ Time: _____ Witness: _____

Patient Signature: _____

Signature of Authorized Person: _____ Relationship: _____

Patient's Legal Guardian: _____

Signature of Physician: _____

Form # 27209; October 2008; January 2011

Patient Sticker





In Pursuit of Pain-Free Health Care®

Acute Ischemic Stroke rTPA (Tissue Plasminogen Activator) Treatment Patient / Family Information

An Ischemic Stroke is caused by a clot blocking blood flow to a portion of the brain. The FDA (Food and Drug Administration) has approved a medicine, Tissue Plasminogen Activator (TPA) that may be given to break up the clot and allow blood to flow again to that part of affected brain. The Physician has determined that the patient's symptoms started less than 4.5 hours ago and that the patient does not have exclusions to receiving thrombolytic therapy.

Exclusions for the less than 3 hour treatment window include but are not limited to onset of stroke symptoms greater than 3 hours, age less than 18, symptoms of a subarachnoid hemorrhage, rapidly improving or minor stroke symptoms, CT Scan showing evidence of intracranial hemorrhage, history of seizure at stroke onset, stroke or serious head trauma during preceding 3 months, prior history of intracranial hemorrhage, or major surgery or other serious trauma during preceding 2 weeks.

Exclusions for the 3-4.5 hour treatment window include any of the aforementioned Exclusions plus ANY of the following: > 80 years old; taking an oral anticoagulant regardless of INR; Diabetes plus a history of stroke (combination).

TPA is administered intravenously through a weight-based protocol.

General Information

The patient may recover to a significant degree or even completely without this treatment. There is also a possibility that this stroke may be fatal.

Benefits

If the therapy works, the patient has a 1 in 8 chance that he/she will be better off than without the medicine. Of the people who show improvement, patients are 30% more likely to recover with little or no disability if treated.

Risks

There is a 7 in 8 chance that the patient will be no better off if treated. The patient may have bleeding complications such as: bleeding from gums; bleeding in the urinary tract. The patient may bleed into internal organs. There is a 1 in 17 (6%) chance that therapy will produce bleeding in the brain. (There is a < 1% chance of bleeding if the patient is not treated with this drug – i.e. with standard treatment only). There is a 1 in 33 (3%) chance that this bleeding will be fatal. There is no difference in death rates between those that are treated and those that are not.

This is a difficult decision to make, however it must be made as quickly as possible since we must administer the medicine within 4.5 hours of the onset of symptoms.

Following TPA Therapy

Admission to the ICU will include specialized ICU nursing care, interdisciplinary stroke team management, hemodynamic monitoring and frequent neurologic assessments and evaluation. Acute stroke risk factor identification and treatment will be provided. Stroke improvements and outcomes vary and are individualized.

Management of Stroke Risk Factors

Acute stroke risk factors include previous stroke, hypertension, elevated cholesterol, Diabetes, obesity, advanced age, as well as smoking cigarettes, excessive alcohol and drug abuse.

Stroke Resources and Support

National Stroke Association: 1-800-STROKES; www.stroke.org

American Stroke Association: 1-888-4-STROKE; www.strokeassociation.org

Revised January 2011; May 2011

Acute Ischemic Stroke - NO TPA / TIA Admission Orders

Check off orders that apply

Diagnosis: () Acute Ischemic Stroke () TIA

Admit to: () STROKE Unit (2 South) () Telemetry (3NE/3SE) () ICU () ICU Intensivist _____

() Other: _____ () Isolation Required

Nursing/Respiratory Care:

Continuous pulse oximetry and cardiac monitoring for the first 24 hrs; after 24 hrs, physician order is required to continue. May be off cardiac monitor and/or pulse oximetry for diagnostic or therapeutic procedures.

Vital Signs: Every two hours x2; then every 4 hours x 4; then every 8 hours and as needed
Immediately contact Physician for: SBP >220; DBP <50 or >95; Temp: <96.5 or >101.5;
Pulse: <50 or >120; Respiratory Rate: <10 or >30; urine output: <30mL/hour or < 240 mL/8 hours

Neurochecks every 4 hours x 48 hrs, then every 8 hrs
NIH Stroke Scale on arrival; then every 8 hours x 2 days; then daily
Notify Neurologist/attending Physician of any decline in neurological status and/or increasing NIH Stroke scores
Pulse oximetry: Continuous pulse oximetry for the first 24 hrs; SaO2 on room air, administer O2 at 2L per NC if SaO2 is < 92%; titrate to maintain SaO2 > or = 92%.

Strict I & O
HOB elevated 30 degrees unless contraindicated
Foley if no urine output 8 hours from E.D. arrival
Accucheck: Before meals and at bedtime (every 6 hours if NPO, or on tube feeds or TPN)
Contact physician for further orders if 2 or more BG > than or equal to 150 within 24 hrs.
*After 48 hrs, if BG <150 mg/dL x 24 hrs and patient is NOT a known diabetic, then Accuchecks can be discontinued.

() NGT: _____
() Hemocult all stools
() Daily weight
Fall precaution protocol
Wound Care automatic referral done if Braden Scale score 14 or less

Stroke Consults: (Note: For Patient with TIA, check consultations as needed)

() Neurologist: _____
() Physiatrist (Rehabilitation Medicine): _____
() Cardiologist: _____
() Hematologist: _____

Rehab Team (Note: For Patients with TIA, check consults/therapies as needed):

() Physical Therapy Evaluation and Treatment and OT Evaluation and Treatment
() SLP Evaluation and Treatment
() Nutrition Services
() Case Management
() Other: _____

Activity/Precautions:

Strict bed rest x 24 hours unless indicated otherwise
() Bathroom privileges with assist
Turn every 2 hours

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #56616
OE ORD.zcus.56616
Rev:5/2/11



Physician Order

M00000369
V00000308609 DYLAI,BOB
0223-01
Age: 68 Sex: M
SACK,MARK



LITTLE COMPANY OF MARY HOSPITAL AND HEALTHCARE CENTERS

Acute Ischemic Stroke - NO TPA / TIA Admission Orders

Precautions: () Aspiration () Seizure () Other: _____

Diet: Dysphagia Screen prior to Oral Intake including oral medications if not done in E.D.

() Diet: _____

IV Fluids:

() 0.9% NaCl @ _____ mL/hour with _____ mEq KCl/L
() IV Lock with flush every shift

() Other: _____

Medications: If NPO, do NOT give Medications orally

Antiplatelet:

- () Aspirin 81 mg 1 tab PO daily - 325 mg PO x 1 (if did not get in E.D.) then 81 mg PO daily
- () Aspirin 325mg PO daily
- () Aspirin 300 mg suppository PR daily
- () Clopidogrel (Plavix) 75 mg PO daily
- () Clopidogrel (Plavix) 300 mg PO x 1 then 75 mg PO daily

Anticoagulation:

- () Warfarin _____ mg PO @ H.S.
- () Dabigatran (Pradaxa) 150 mg P.O. B.I.D.

Heparin:

- () Stroke Heparin Protocol (see preprinted order)
- () Heparin Protocol - Standard (see preprinted order)

() Non Protocol: _____

VTE Prevention:

****Sequential Compression Device (SCD) unless contraindicated****
Enoxaparin (Lovenox) 40 mg SQ daily

- () Other: _____
- () VTE Prophylaxis medication contraindicated due to _____

Gastritis/PUD: Only indicated if patient is in ICU with risk factors for stress-related mucosal damage

- () Famotidine (Pepcid) 20 mg () IV or () PO BID
- () Pantoprazole (Protonix) 40 mg () IV or () PO daily

() Other: _____

Other Medications:

- Antilipemic: _____ mg PO at HS
- Docusate Sodium (Colace) 100 mg PO twice daily if no BM in last 48 hours
- () Milk of Magnesia 30 mL PO daily as needed if no BM in last 48 hours
- () Acetaminophen 650 mg PO or PR every 4 hours PRN temp >38 C (100.4 F)

() Other: _____

Vaccines:

Influenza Vaccine per Pre-printed order set after assessment (during flu season)
Pneumococcal Vaccine per Pre-printed order set after assessment

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #56616
OE.ORD.zcvs.56616
Rev:5/2/11



Physician Order

M00000369
V00000308609 DYLAN, BOB
0223-01
Age: 68 Sex: M
SACK, MARK



LITTLE COMPANY OF MARY HOSPITAL AND HEALTHCARE CENTERS
Acute Ischemic Stroke - NO TPA / TIA Admission Orders

Labs:

Fasting Lipid Profile in am

STAT CBC with Diff, CMP, Prottime/INR, aPTT (IF NOT DONE IN E.D.)

- ESR
- RPR

Diagnostic Tests:

- DIAGNOSTIC
- 24 hour Holter Monitor
 - MRI of Head with and without Gadolinium
 - MRA: Intracranial Extracranial
 - Plain Brain CT scan
 - 2D Echocardiogram
 - Carotid Doppler

- INDICATION
- Arrhythmia Surveillance
 - Localize infarction
 - Assess circulation
 - Localize infarction
 - Stroke r/o embolic risk/source
 - Embolism/thrombosis

Other: _____

Other: _____

Patient Education:

Provide Patient and Family Stroke Education:

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #56616
OE.ORD.zcus.56616
Rev:5/2/11



Physician Order

M00000369
V00000308609 DYLAW.BOB
0223-01
Age: 68 Sex: M
SACK, MARK



17

LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS

ICU ADMISSION ORDERS: ACUTE ISCHEMIC STROKE-POST TPA

Check off orders that apply

Diagnosis: Acute Ischemic Stroke - Post TPA
Admit to ICU () ICU Intensivist:

Post Tissue Plasminogen activator (TPA) Administration ORDERS Document Time TPA initiated:

Nursing/Respiratory Care:

Continuous cardiac monitoring and pulse oximetry
Monitor B.P. every 15 minutes during treatment and then for another 2 hours, then every 30 minutes for 6 hours
and then every hour until 24 hours after treatment.

Vital Signs: Hourly x 6 hours; then every 2 hours x 2; then every 4 hours x 4; then every 8 hours and as needed
Immediately contact Physician for Temp: < 96.5 or > 101.5; Pulse: < 50 or > 120;
Respiratory Rate: <10 or >30; urine output: < 30mL/hour or < 240 mL/8 hours.

Do NOT use Automated Blood Pressure Cuff

No antithrombotics (i.e. antiplatelets or anticoagulants) for 24 hours from the initiation of TPA infusion
Neuro checks every 15 minutes for 2 hrs; then every 30 minutes for 6 hrs; then hourly for 24 hrs, then every 8 hrs
NIH stroke scale score on arrival; then every 8 hrs x 2 days, then daily

Notify Physician if neurological assessment declines and/or increasing NIH Stroke scores
If neuro status deteriorates, headache, obtain STAT Plain Brain CT Scan (no contrast). If CT is negative for
bleeding, resume orders; IF POSITIVE FOR BLEEDING, Follow Hemorrhagic STROKE PROTOCOL

Head of Bed elevated 30 degrees unless contraindicated

SaO2 on room air, administer O2 at 2L per NC if SaO2 is < 92%; titrate to maintain SaO2 > or = 92%

Strict I & O

Accucheck: Before meals and at bedtime (every 6 hours if NPO, or on tube feeds or TPN)

Contact physician for further orders if 2 or more BG > 150 within 24 hours

* After 48 hrs, if BG<150 mg/dL x 24 hrs and patient is NOT a know diabetic, then Accuchecks can be discontinued.

- () NGT:
() Hemocult all stools
() Daily weight
Fall precaution protocol
Wound Care automatic referral done if Braden Scale score 14 or less

Consults:

- () Neurologist:
() Physiatrist (Rehabilitation Medicine):
() Cardiologist:
() Hematologist:

Rehab Team

- () Physical Therapy Evaluation and Treatment and OT Evaluation and Treatment
() SLP Evaluation and Treatment
() Nutrition Services
() Case Management
() Other:

Activity: Strict Bedrest for 24 hours post TPA treatment

Precautions: () Aspiration () Seizure () Other:

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number
T.O. Date T.O. Time T.O. Physician Name T.O. RN Name
Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #32966
OE-ORD.zcus.32966
Rev:5/02/11



Physician Order

H00000369
V00000308609 DYLAN,BOB
0223-01
Age: 68 Sex: M
SACK,MARK



ICU ADMISSION ORDERS: ACUTE ISCHEMIC STROKE-POST TPA

Diet: Dysphagia screen PRIOR to Oral Intake (including oral medication)

() Diet _____

Blood Pressure Management: During and after TPA administration:
Monitor B.P. every 15 minutes during treatment and then for another 2 hours, then every 30 minutes for 6 hours and then every hour until 24 hours after treatment

Control of Elevated Blood Pressure:
CHECK B.P. every 5 minutes while administering below medication and every 15 minutes hereafter x 2 hours

Blood Pressure Levels

SBP 180 - 230 mmHg or Diastolic B.P. 105 to 120 mmHg:

- Titrate to maintain systolic B.P. at _____ and diastolic B.P. at _____
- () Labetalol 10 mg IV over 1 to 2 minutes, may repeat every 10 to 20 minutes, maximum dose of 300 mg
- () Labetalol 10 mg IV followed by an infusion at 2 to 8 mg/minute

SBP > 230 mmHg or Diastolic B.P. 121 to 140 mmHg:

- Titrate to maintain systolic B.P. at _____ and diastolic B.P. at _____
- () Labetalol 10 mg IV over 1 to 2 minutes, may repeat every 10 to 20 minutes, maximum dose of 300 mg
- () Labetalol 10 mg IV followed by an infusion at 2 to 8 mg/minute
- () Nicardipine infusion, 5 mg/hour, titrate up to desired effect by increasing 2.5 mg/hour every 5 minutes to maximum of 15 mg/hr.
- () If B.P. not controlled, consider sodium nitroprusside, continuous IV infusion 0.1 - 10 mg/Kg./min

VTE Preventions:

Sequential compression Device (SCD) unless contraindicated

Enoxaparin (Lovenox) 40 mg SQ daily, start 24 hours post TPA

- () Other: _____, start 24 hours post TPA
- () VTE Prophylaxis medication contraindicated due to _____

Gastritis/PUD: If NPO, do NOT give medications orally. Only indicated if pt is in ICU with risk factors for stress-related mucosal damage

- () Famotidine (Pepcid) 20 mg () IV or () P.O. B.I.D.
- () Pantoprazole (Protonix) 40 mg () IV or () P.O. daily

() Other: _____

IV Fluids:

- () 0.9 % NaCL @ _____ mL/hour with _____ mEq KCL/L
- () IV Lock with flush every shift

() Other: _____

Medications: If NPO, do NOT give Medications orally

NO antithrombotics (i.e. antiplatelets or anticoagulants) for 24 hrs from the initiation of TPA infusion

Antiplatelet:

- () Aspirin 325 mg P.O. x 1 then 81 mg P.O. daily
- () Aspirin 325 mg P.O. daily
- () Aspirin 300 mg suppository PR daily
- () Clopidogrel (Plavix) 75 mg P.O. daily
- () Clopidogrel (Plavix) 300 mg P.O. x 1 then 75 mg P.O. daily

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date _____	Physician Time _____	Physician Signature _____	Physician Number _____
T.O. Date _____	T.O. Time _____	T.O. Physician Name _____	T.O. RN Name _____
Unit Secretary Signature _____	Noted RN Signature _____	Date & Time _____	3rd Shift Initials _____

Form #32966
DC. ORD. zcus. 32966
Rev: 5/02/11



Physician Order

M00000369
V00000308609 DYLAN, BOB
0223-01
Age: 68 Sex: M
SACK, MARK



LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS

ICU ADMISSION ORDERS: ACUTE ISCHEMIC STROKE-POST TPA

Anticoagulant: (start 24 hours post TPA):

() Warfarin _____ mg P.O. @ H.S.

Heparin:

() Stroke Heparin Protocol (see preprinted order)
() Heparin Protocol - Standard (see preprinted order)

() Non Protocol: _____

Other Medications:

Antilipemic: _____ mg P.O. at HS
Docusate Sodium (Colace) 100 mg P.O. twice daily if no BM in last 48 hours
() Milk of Magnesia 30 mL P.O. daily as needed if no BM in last 48 hours
() Acetaminophen 650 mg P.O. or PR every 4 hours P.R.N. temp > 38 C (100.4 F.)

() Other: _____

Vaccines:

Influenza Vaccine per Pre-printed order set after assessment (during flu season)
Pneumococcal Vaccine per Pre-printed order set after assessment

Labs:

CBC 24 hours post TPA

Fasting Lipid Profile in A.M.

- () CBC with diff
() CMP
() Prottime/INR
() aPTT
() ESR
() RPR

Diagnostic Tests:

- () Repeat Plain Brain CT scan 24 hours post TPA Indication: Localize infarction
() MRI of Head with and without Gadolinium Indication: Assess circulation
() MRA: () Intracranial () Extracranial Indication: Localize infarction
() Plain Brain CT scan Indication: Stroke r/o embolic risk/source
() 2D Echocardiogram Indication: Embolism/Thrombosis
() Carotid Doppler

() Other: _____ Indication: _____

() Other: _____ Indication: _____

Patient Education:

Provide Patient and Family Stroke Education:

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #32966
OC, ORD, zcus, 32966
Rev: 5/02/11



Physician Order

M000000369
V00000308609 DYLAN, BOB
0223-01
Age: 68 Sex: M
SACK, MARK



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LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS
ICU ORDERS: HEMORRHAGIC STROKE ADMISSION ORDERS

Check off orders that apply

Diagnosis: Hemorrhagic Stroke
Admit to ICU () ICU Intensivist _____

Nursing/Respiratory Care:

- B.P. Management: hourly x 24 hrs
- Vital Signs: hourly x 6 hrs; then every 2 hrs x 2; then every 4 hrs x 4; then every 8 hrs and as needed.
- IMMEDIATELY contact Physician for: Temp <96.5 or >101.5; Pulse <50 or >120; Respiratory rate .10 or >30;
- Urine output: less than 30 mL/hr, less than 240 mL/8hrs.
- Neuro Checks every 30 minutes for 6 hrs; then hourly for 24 hrs; then every 8 hrs.
- NIH stroke scale score; on arrival; then every 8 hrs x 2 days; then daily
- Notify Physician if neurological assessment declines and/or increasing NIH Stroke scores
- Assess airway and ventilation. Notify Physician if patient unable to maintain patent airway or clear airway of secretions
- SaO2 on room air; administer O2 @ 2L/NC/minute if SaO2 is <92%; titrate to maintain SaO2 +/- 92%
- Strict I&O
- Hemocult all stools
- Maintain 2 peripheral IV sites: IV lock 2nd line
- Accucheck: Before meals and at bedtime (every 6 hrs if NPO, or on tube feeds or TPN)
- Contact physician for further orders if 2 or more BG >= 150 within 25 hrs.
- * After 48 hrs, if BG <150 mg/dL x 24 hrs, and patient is NOT a know diabetic, then Accuchecks can be discontinued.

- () NGT: _____
- () Daily Weight
- () Arterial line if needed for titration of blood pressure medication and sedation medication
- Fall precaution protocol
- Wound Care automatic referral done if Braden Scale score 14 or less

Consults:

- () Neurosurgery: _____
- () Neurologist: _____
- () Physiatrist (Rehabilitation Medicine): _____
- () Hematologist: _____
- () Cardiologist: _____
- () Other: _____

Rehab Team:

- () Physical Therapy Evaluation and Treatment and OT Evaluation and Treatment
- () SLP Evaluation and Treatment
- () Nutrition Services
- () Case Management
- () Other: _____

Activity:

Strict bed rest for 24 hours
Head of bed elevated 30 degrees unless contraindicated

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date _____ Physician Time _____ Physician Signature _____ Physician Number _____

T.O. Date _____ T.O. Time _____ T.O. Physician Name _____ T.O. RN Name _____

Unit Secretary Signature _____ Noted RN Signature _____ Date & Time _____ 3rd Shift Initials _____

Form #65547
OE.ORD.zcus.65547
Rev:5/2/11



Physician Order

M00000369
V0000308609 DYL/N.BOB
0223-01
Age: 68 Sex: M
SACK, MARK



ICU ORDERS: HEMORRHAGIC STROKE ADMISSION ORDERS

Precautions: Aspiration Seizures Other: _____

Diet: Dysphagia Screen PRIOR to Oral Intake (including oral medications)

Diet: _____

VTE Prevention: NO ANTICOAGULANT THERAPY (may consider starting anticoagulant after 3 - 4 days if patient stable)
Sequential Compression Device (SCD) unless contraindicated

Medications: If NPO do NOT give meds orally

Gastritis/PUO: Only if pt is in ICU with risk factors for stress-related mucosal damage.

- Famotidine 20 mg IV or P.O. B.I.D.
- Pantoprazole (Protonix) 40 mg IV or P.O. daily

Other: _____

Control of Elevated Blood Pressure:

CHECK B.P. every 5 minutes while administering below medication and every 15 minutes thereafter x 2 hrs.

Titrate to maintain systolic blood pressure at _____ and diastolic blood pressure at _____

- Labetalol 5 to 20 mg IV every 15 minutes; continuous IV infusion rate of 2 to 8 mg per minute (max 300 mg/day)
- Nicardipine continuous IV infusion of 5mg/hr, titrate up by 2.5 mg/hr at 5 to 15 min intervals (maximum dose = 15 mg/hour)
- Enalapril 0.625 mg IV x 1 then 1.25 to 5 mg IV push every 6 hours
- Hydralazine 5 to 20 mg IV push every 30 minutes; continuous IV infusion 1.5 to 5 mcg/Kg. per minute
- Nitroprusside continuous IV infusion 0.1 to 10 mcg/kg. per minute
- Nitroglycerin 20 to 400 mcg per minute

IV Fluids:

- 0.9% NaCl @ _____ mL/hour with _____ mEq KCl/L
- IV Lock with flush every shift

Other: _____

Medications:

- Mannitol 20% Bolus _____ Gm. IV STAT over 30 minutes (usual range 0.25 Gm./Kg - 1Gm./Kg.)
- Mannitol 20%: Check Osmolarity, Sodium, Potassium STAT every 4 hours
If osmolarity < 310: Give Mannitol (0.25 Gm./Kg.) _____ Gm. IVPB over 30 minutes
If osmolarity > 310: No further Mannitol and CONTACT Physician
- Fosphenytoin (Cerebyx) 18 mg PE/Kg. _____ mg loading dose IV (PE = phenytoin equivalents)

Other antiepileptic _____

Morphine Sulfate: 1mg 2mg 3mg 4mg IV every 2 hours as needed for pain

Other Medications: If NPO, do NOT give Medications orally

Antilipemic: _____ mg P.O. at HS

Docusate Sodium (Colace) 100 mg P.O. twice daily if no BM in last 48 hours

- Milk of Magnesia 30 mL P.O. daily as needed if no BM in last 48 hours
- Acetaminophen 650 mg P.O. or PR every 4 hrs P.R.N. temp > 39 C (100.4 F.)

Other: _____

Vaccines: Influenza Vaccine per Pre-printed order set after assessment (during flu season)
Pneumococcal Vaccine per Pre-printed order set after assessment

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #65547
OC_ORD.zcus.65547
Rev:5/2/11



Physician Order

M00000369
V0000308609 DYLAN,BOB
0223-01
Age: 68 Sex: M
SACK,MARK



22

LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS
ICU ORDERS: HEMORRHAGIC STROKE ADMISSION ORDERS

Labs:

Fasting Lipid Profile in am

STAT CBC with Diff. CMP. Prottime/INR. aPTT (if not done in E.D.)

- ESR
- RPR

Fibrinogen, fibrin split products, thrombin time if TPA INFUSED WITHIN 24 HOURS

Type and cross 8 units cryoprecipitate and 8 units fresh frozen plasma

Type and cross 2 units Packed Red Blood Cells

CBC with Diff - Next due _____

CMP - Next due _____

Prottime/INR - Next due _____

aPTT - Next due _____

Other: _____

Diagnostic Tests:

MRI of Head with and without Gadolinium

MRA: Intracranial Extracranial

Plain Brain CT scan

Other: _____

Other: _____

Patient Education:

Provide Patient and Family Stroke Education:

***** Please Sign All Pages and Fax To Pharmacy *****

Physician Date Physician Time Physician Signature Physician Number

T.O. Date T.O. Time T.O. Physician Name T.O. RN Name

Unit Secretary Signature Noted RN Signature Date & Time 3rd Shift Initials

Form #65547
OE, ORD, zcus, 65547
Rev: 5/2/11



Physician Order

M000000369
V00000308609 DYLAII,BOB
0223-01
Age: 68 Sex: M
SACK, MARK



23

LITTLE COMPANY OF MARY HOSPITAL AND HEALTH CARE CENTERS
STROKE Heparin Protocol - Physician Orders
 The protocol is ONLY for Neurology Indications

- ACTUAL WEIGHT 68.0388 kg or 150lb
 (To calculate bolus and infusion, use actual body weight. Do not exceed maximum dose.)
- INITIATE HEPARIN PROTOCOL FOR: (Check on of the following or circle indication in the dosing table)
 () Non-hemorrhagic Stroke Indication (i.e. Ischemic stroke; embolism, thrombosis, systemic hypoperfusion)
 EXCLUDING: hemorrhagic stroke (i.e. Intracerebral Hemorrhage or Subarachnoid hemorrhage)
 () Non-hemorrhagic Stroke post t-PA Administration -Start 24 hrs after the end of the t-PA infusion
 EXCLUDING: hemorrhagic stroke (i.e. Intracerebral Hemorrhage or Subarachnoid hemorrhage)
 () (Optional Bolus) 50 units/kg to maximum of 5000 units
- STOP LOW MOLECULAR WEIGHT HEPARIN OR SQ HEPARIN.
- LABS:**
 - Baseline aPTT, PT/INR, and CBC (if not already done in previous 24 hrs), prior to heparin initiation.
 - Obtain STAT aPTT 6 hours after heparin bolus and repeat 6 hours after the initial aPTT. Obtain aPTT 6 hours after any dosage change
 - Obtain CBC every 48 hours. NOTIFY THE DOCTOR for platelets less than 100,000, a 40% decrease in platelet count, hemoglobin decrease > 2g/dL, or signs/symptoms bleeding.
 - Once two consecutive aPTTs taken 6 hours apart are therapeutic, order aPTT every 24 hours at 6 AM and readjust drip as needed.

INITIAL DOSING BY INDICATION:

Indication	Weight (kg)	Infusion Dose (Units/hr)	Infusion Rate (mL/hr)
Non Hemorrhagic Stroke	<50	500	5
	50 - 59	600	6
	60 - 69	700	7
	70 - 79	800	8
	80 - 89	900	9
	90 - 99	1000	10
	100 - 109	1100	11
	110 - 119	1200	12
	>119	1400	14

Concentration: 25,000 units/250 mL D5W = 100 units/mL

DOSE ADJUSTMENTS BASED ON aPPT:

aPTT (seconds)	Infusion Hold Time	Heparin Bolus IV Push	Infusion rate Change	Order Next aPTT
<40	0	-	Increase by 200 units/hr (+2mL/hr)	6 hrs
40 - 49	0	-	Increase by 100 units/hr (+1mL/hr)	6 hrs
50 - 80*	0	-	NO CHANGE	Q AM (0600)
81 - 90	0	-	Decrease by 50 units/hr (-0.5mL/hr)	6 hrs
91 - 100	0	-	Decrease by 100 units/hr (-1mL/hr)	6 hrs
101 - 110	0	-	Decrease by 150 units/hr (-1.5mL/hr)	6 hrs
111 - 120	0	-	Decrease by 200 units/hr (-2mL/hr)	6 hrs
121 - 140	Hold 1 Hour	-	Decrease by 200 units/hr (-2 mL/hr)	6 hrs
>140	Hold 2 Hours	-	Decrease by 250 units/hr (-2.5 mL/hr)	6 hrs

*LCMH 2004 therapeutic range per heparin level 0.3 - 0.7 antifactor Xa

** Confirmation of Baseline PTT drawn () Yes

R.N. initials _____

Physician date _____ Physician time _____ Physician Signature _____ Physician Number _____

T.O. Date _____ T.O. Time _____ T.O. Physician Name _____ T.O. R.N. Name () rb _____

Unit Secretary Signature _____ Noted R.N. Signature _____ Date & Time _____ 3rd shift initials _____



M000000101
 V00000002658 TEST, ALLERGY
 Age: 54 Sex: F
 Room: 3312-01
 Admit Dr: SAOOK, SMATH

Physician Order

24





LITTLE COMPANY OF MARY
HOSPITAL AND HEALTH CARE CENTER

**Acute Stroke Interdisciplinary Collaborative Plan of Care
Assessment/Evaluation Summary**

On admission:

Stroke symptoms: _____

NIH Stroke Scale (NIHSS) score: _____

Was rTPA given: Yes No

Nutrition status: _____

Case Management issues: _____

Pastoral Care: _____

Nursing:

Nursing	Admit Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date							
RN Initials							
NIHSS score							
Bladder							
Bowels							
Skin Assessment							
Stroke Education Materials Reviewed							

KEY: 1=incontinent; 2=occasional accident; 3=continent
 KEY: 1=incontinent; 2=occasional accident; 3=continent
 KEY: 1=stage I; 2=stage II; 3=Stage 3; 4=stage IV; 5=INTACT
 Key: 1=YES; 2=NO

Comments: _____

Occupational Therapy:

Key:

1	Dependent
2	Max assist 75%
3	Med Assist 50%
4	Min assist 25%
5	Supervision/set up
6	Modified Independence (extra time/device)
7	Completely independent

OT	Admit Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date							
OT Initials							
Feeding							
Grooming							
Bathing							
Dressing Upper Body							
Dressing Lower Body							
Bed Mobility							
Toileting							
Toilet Transfer							

Comments: _____

Form # 0062240
Revised 3/9/10

Patient Sticker

(over)



POC

Plan of Care

25



Acute Stroke Interdisciplinary Collaborative Plan of Care Assessment/Evaluation Summary

Physical Therapy:

Key:

1	Dependent
2	Max assist 75%
3	Mod Assist 50%
4	Min assist 25%
5	Supervision/set up
6	Modified Independence (extra time/device)
7	Completely Independent

PT	Admit Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date							
PT Initials							
Transfers: BED							
Transfers: CHAIR							
Transfers: W/C							
Locomotion: WALK							
Locomotion: WHEEL-CHAIR							
Locomotion: STAIR CLIMBING							
Locomotion: SIT TO STANDE							
Locomotion: SUPINE TO SIT							

Assistive Device: _____
 Sitting Balance: _____ Standing Balance: _____ Tolerance: _____
 Comments: _____

Speech Therapy:

Key:

1	Severe deficits
2	Mod to severe deficits
3	Mod deficits
4	Mild to mod deficits
5	Mild deficits
6	Minimal deficits
7	Within normal limits

ST	Admit Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Date							
SLP Initials							
Comprehension							
Expression							
Problem Solving							
Memory							
Swallow							

Comments: _____
 Physiatry Recommendations: _____
 Case Manager Discharge Plan: _____
 Nutrition Status on Discharge: _____
 Team Goal/Post Discharge: _____
 Staff Initials, Signatures and Titles: _____



Acute Stroke Initial Dysphagia Screening Tool for RNs

Date: _____ Time: _____ of Initial Dysphagia Screen RN signature: _____
 Location of patient (circle one): ED ICU Telemetry Stroke Unit

A "YES" response triggers Immediate "NPO, Speech Language Pathology (SLP) consultation/evaluation order, and initiation of Aspiration Precautions" without further screening

a. History of Dysphagia? Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
Tip: If pt is on nectar, honey, or pudding-thick liquids, ORDER NPO as above!

No (proceed)



b. Was patient NPO or on Tube Feedings prior to arrival?

Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions

No (proceed)



c. Does the Patient demonstrate ANY of the following?

- Secretion problem/sounds wet?
- Weak or unusual vocal quality?
- Have the patient COUGH → Weak, absent, or unusual cough?
- Severe facial/oral weakness (difficulty keeping secretions in mouth)?

Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions

No (proceed)



Dysphagia SCREENING:

RN: Give one **SMALL sip** of water by cup (**DO NOT USE A STRAW!**) → Tip: Patient should swallow one time over one second;

RN: feel over larynx (Adam's apple) area for one upward followed by one downward movement

a. Does the Patient demonstrate ANY of the following?

- No attempt to swallow?
- Coughing/throat clearing?
- Wet or gurgling vocal quality (voice)?
- Multiple swallows

Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions

No (proceed)



b. Give water freely by cup:

Does the Patient demonstrate ANY of the following?

- No attempt to swallow?
- Coughing/throat clearing?
- Wet or gurgling vocal quality (voice)?
- Seems unsafe

Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration

No Precautions

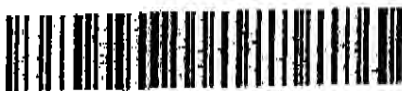
All NO responses → consider starting diet per Physician and order bedside **SWALLOW EVALUATION**.

Initiate "Safe Swallow Precautions" for all patients (for oral intake: Patient positioned upright, slow rate & small sips).

If there are any concerns about the patient's ability to safely swallow, continue NPO and consult Bedside Swallow evaluation.

If there is any decline in Neurological or Pulmonary status, REPEAT the Dysphagia Screening.

Patient Label



NIHSS STROKE ASSESSMENT/EVALUATION

Date initiated:	DEFINITION/SCORE CRITERIA	Date: Time: Initials:	Date: Time: Initials:	Date: Time: Initials:
1a Level of Consciousness Use scoring scale in next column → → →	0=alert 2=obtunded 1=drowsy 3=coma			
1b Level of Consciousness Query: "month" and "age" Assess CORRECT ANSWERS	0=answers both correctly 1=answers one correctly 2=both are incorrect/COMA			
1c Level of Consciousness Command: open/close eyes Grip/release non-paretic hand	0=performs both correctly 1=performs one correctly 2=performs neither correctly/COMA			
2 Best Gaze Only test horizontal eye movements Pt follows examiner face/finger	0=normal 1=gaze is abnormal in one or both eyes 2=total gaze paresis/forced deviation			
3 Visual Fields (Upper/Lower) Finger counting or visual threat in upper and lower visual fields	0=no visual loss 1=partial hemianopia 2=complete hemianopia 3=bilateral hemianopia			
4. Facial Palsy (show teeth, raise eyebrows, close eyes)	0=normal symmetrical facial moves 1=asymmetry upon smiling (minor) 2=partial lower face paralysis 3=upper/lower face without movement			
COMA patient score is 3 Motor ARMS 5a LEFT ARM / 5b RIGHT ARM: Test non-paretic arm first; extend arm (palm down) 90 degrees if sitting; Drift is scored if arm falls < 10 seconds COMA patient score is "4"	0=no drift/full 10 seconds 1= + drift before 10 seconds 2=some effort against gravity 3=no effort against gravity 4=no movement NA=amputation/injury	LEFT ARM:		
Motor LEGS 6a LEFT LEG / 6b RIGHT LEG Always test SUPINE and begin with non-paretic leg; hold leg at 30 degrees; Drift is scored if leg falls < 5 seconds COMA patient score is "4"	0=no drift/full 5 seconds 1=+ drift before 5 seconds 2=some effort against gravity 3=no effort against gravity 4=no movement NA=amputation/injury	LEFT LEG:		
7. Limb Ataxia Test with eyes open; finger-nose and heel-shin tests performed bilaterally; "absent" score with paralysis;	0=absent 1=present in one limb 2=present in two limbs NA=amputation/injury			
8 Sensory Pinprick or noxious stimuli test -use "orange BLUNT TIP" to bilateral arms, legs, trunk, & face; if impaired LOC score if grimace or asymmetric withdrawal is observed;	0=normal (no sensory loss) 1=mild to moderate sensory loss 2=severe to total sensory loss (coma)			
9. Best Language Standard PICTURES are NAMED (see handout) Ask to describe event name items read words on attached sheets; or can place item in pts hand, repeat, & produce speech/comprehension	0=no aphasia; normal 1=reduction of speech/ comprehension 2=all communication has fragmented expression 3=no usable speech or auditory comprehension/Coma patient			
10 Dysarthria Ask to read or repeat words from a list (see handout) Evaluate speech clarity from reading; Evaluate spontaneous speech clarity	0= normal speech/articulation 1=slurs some words/difficult to understand 2=unintelligible slurred speech or mute/COMA NA=EIT or other physical barrier			
1 Extinction and Inattention Formerly "Neglect"; Eyes closed, touch right/left/both sides of face, arms, legs) Use prior tested information to identify neglect COMA patient score is "2" Total NIHSS Score: Mild: < / = 4; Moderate: 5-12; Severe: 13-18; Critical = > / = 19;	0=no abnormality 1=inattention/partial neglect 2=profound hemi-inattention/complete neglect/Coma			
	Total score		Total score	Total score

Evaluator's Signatures:

(Source: www.ninds.nih.gov)
 Form#0066286 Revised 7/9/2010



NIHSS

Patient Label

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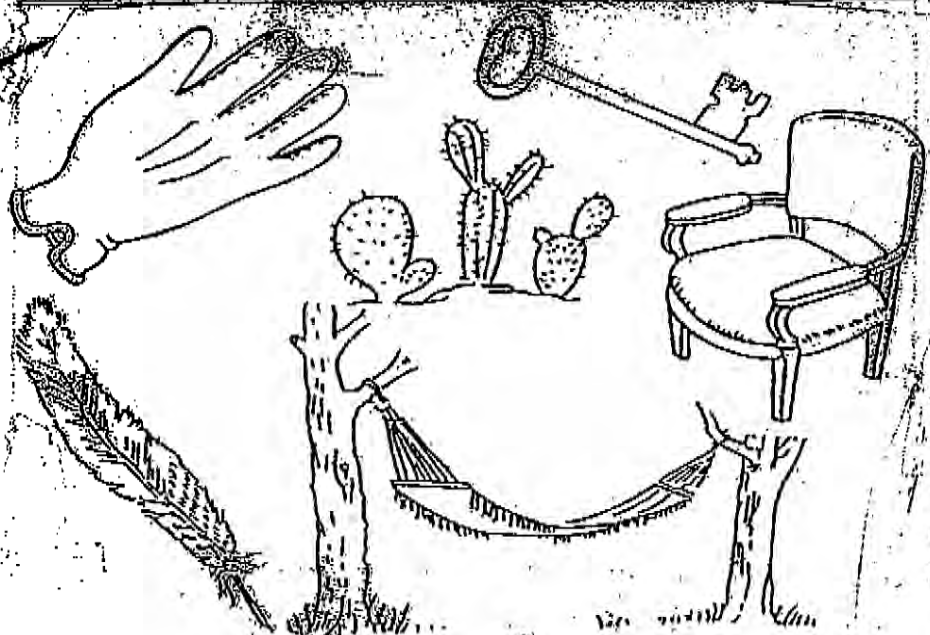
NIH Stroke Scale

Pictures / Naming List / Sentences & Word List

NIH Stroke Scale Testing Card — Picture Description



NIH Stroke Scale Testing Card — Naming List



App. A2

They heard him speak on the radio last night.

Near the table in the dining room.

I got home from work.

Down to earth.

You know how.

NIH Stroke Scale Testing Card — Sentences

A3

NIH Stroke Scale Testing Card

— Word List

MAMA

TIP-TOP

FIFTY-FIFTY

THANKS

HUCKLEBERRY

BASEBALL PLAYER

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Name _____

COMP. 0686 page 1 of 2



Acute Stroke Initial Dysphagia Screening Tool for RNs

Date: _____ Time: _____ of Initial Dysphagia Screen RN signature: _____
Location of patient (circle one): ED ICU Telemetry Stroke Unit

A "YES" response triggers immediate "NPO, Speech Language Pathology (SLP) consultation/evaluation order, and initiation of Aspiration Precautions" without further screening

a. History of Dysphagia? Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
Tip: If pt is on nectar, honey, or pudding-thick liquids, ORDER NPO as above!
 No (proceed)



b. Was patient NPO or on Tube Feedings prior to arrival?
 Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
 No (proceed)



c. Does the Patient demonstrate ANY of the following?
 Secretion problem/sounds wet?
 Weak or unusual vocal quality?
 Have the patient COUGH → Weak, absent, or unusual cough?
 Severe facial/oral weakness (difficulty keeping secretions in mouth)?
 Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
 No (proceed)



Dysphagia SCREENING:
RN: Give one SMALL sip of water by cup (DO NOT USE A STRAW) → Tip: Patient should swallow one time over one second;
RN: feel over larynx (Adam's apple) area for one upward followed by one downward movement

a. Does the Patient demonstrate ANY of the following?
 No attempt to swallow?
 Coughing/throat clearing?
 Wet or gurgling vocal quality (voice)?
 Multiple swallows
 Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
 No (proceed)



b. Give water freely by cup:
Does the Patient demonstrate ANY of the following?
 No attempt to swallow?
 Coughing/throat clearing?
 Wet or gurgling vocal quality (voice)?
 Seems unsafe
 Yes → STOP and Order NPO, SLP Consultation for Evaluation, and place on Aspiration Precautions
 No Precautions

All NO responses → consider starting diet per Physician and order bedside SWALLOW EVALUATION.
Initiate "Safe Swallow Precautions" for all patients (for oral intake: Patient positioned upright, slow rate & small sips).
If there are any concerns about the patient's ability to safely swallow, continue NPO and consult Bedside Swallow evaluation.
If there is any decline in Neurological or Pulmonary status, REPEAT the Dysphagia Screening.



Validator

Patient Label



Name _____

COMP.0686
page 2 of 2

NIHSS STROKE ASSESSMENT/EVALUATION

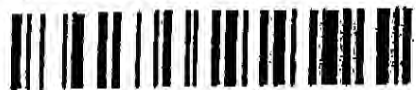
Date initiated: _____

NIHSS Category Evaluation Pearls	DEFINITION/SCORE CRITERIA	Date: Time: Initials:	Date: Time: Initials:	Date: Time: Initials:
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Motor ARMS 5a LEFT ARM / 5b RIGHT ARM: Test non-paretic arm first; extend arm (palm down) 90 degrees if sitting; Drift is scored if arm falls < 10 seconds COMA patient score is "4"	0=no drift/full 10 seconds 1= + drift before 10 seconds 2=some effort against gravity 3=no effort against gravity 4=no movement NA=amputation/injury	LEFT ARM: RIGHT ARM:		
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6. Limb Ataxia Test with eyes open; finger-nose and heel-shin tests performed bilaterally; "absent" score with paralysis;	0=absent 1=present in one limb 2=present in two limbs NA=amputation/injury			
7. Sensory Pinprick or noxious stimuli test -use "orange LUNT TIP" to bilateral arms, legs, trunk, & face; if impaired LOC score if grimace or symmetric withdrawal is observed;	0=normal (no sensory loss) 1=mild to moderate sensory loss 2=severe to total sensory loss (coma)			
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10. Extinction and Inattention Formerly "Neglect"; Eyes closed, touch right/left/both sides of face, arms, legs) before prior tested information to identify neglect IMA patient score is "2"	0=no abnormality 1=inattention/partial neglect 2=profound hemi-inattention/complete neglect/Coma			
Total NIHSS Score: Mild: < / = 4; Moderate: 5-12; Severe: 13-18; Critical: > / = 19;		Total score	Total score	Total score

Evaluator's Signatures: _____

(Source: www.ninds.nih.gov)
Form#0066286 Revised 7/9/2010

Patient Label



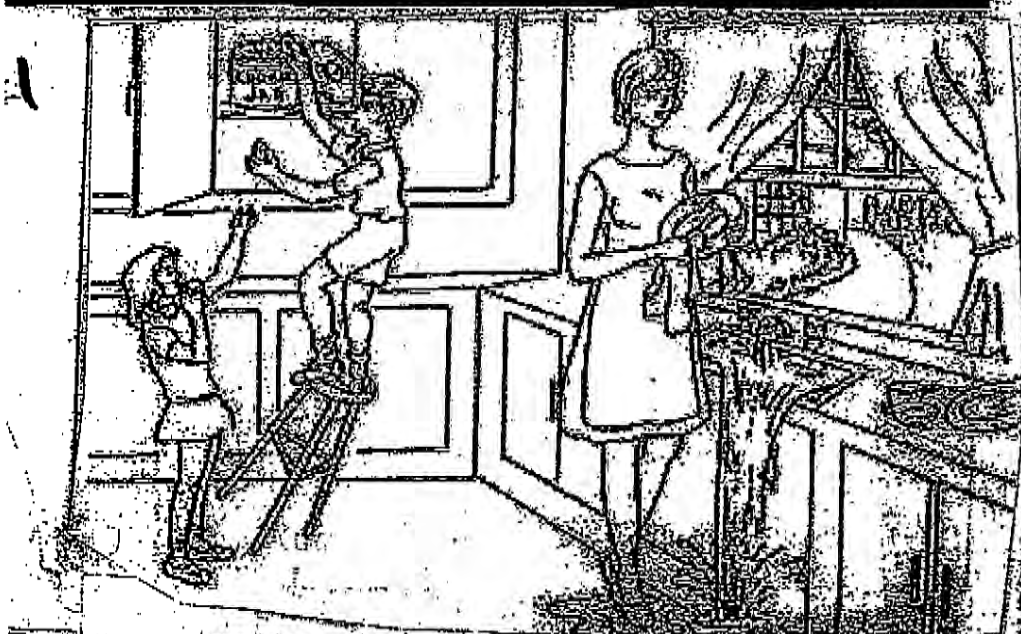
NIHSS

Validator _____

NIH Stroke Scale

Pictures / Naming List / Sentences + Word List

NIH Stroke Scale Testing Card — Picture Description



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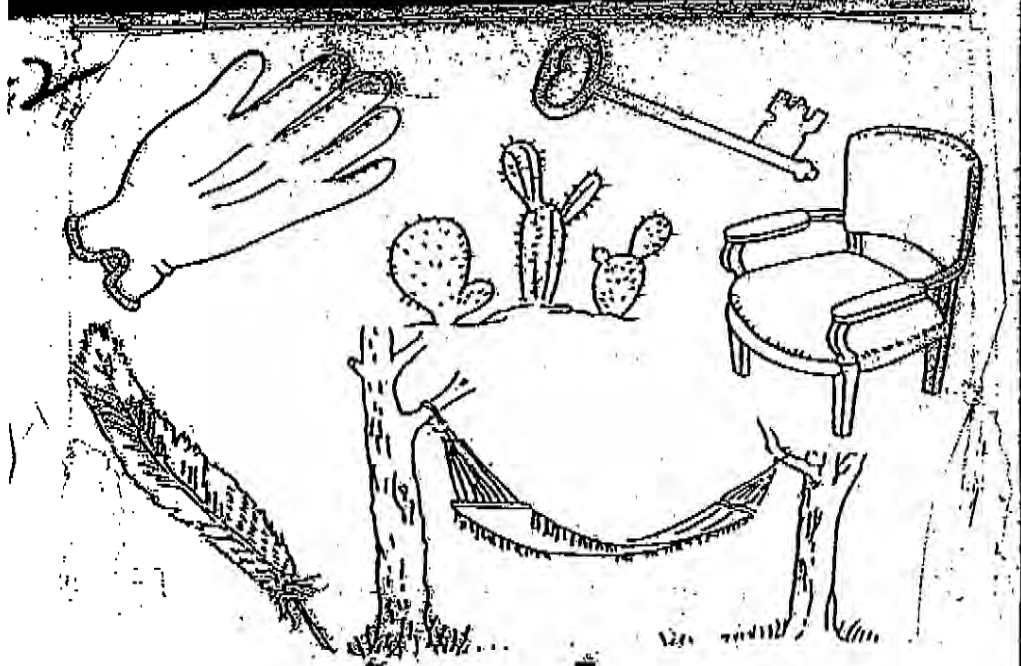
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NIH Stroke Scale Testing Card — Sentences

A3

NIH Stroke Scale Testing Card — Naming List



App. A2

NIH Stroke Scale Testing Card

MAMA — Word List

TIP-TOP

FIFTY-FIFTY

THANKS

HUCKLEBERRY

BASEBALL PLAYER

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