Your Hospital's Logo Here

CLINICAL PATHWAY

Stroke w/ Out Thrombolytic Therapy

***EXCLUDES: TPA & Intubated Pts *INCLUDES: Telemetry**

PATIENT IDENTIFICATION

Diagnosis:	***Initiatin UNIT:***	***Initiatin DATE:***	***Initiatin TIME:***	***DRG NO:*** *14*	***Length of Stay:*** *5.0*

	DAY 1: *0 - 12 Hours* **Date: _____**	**DAY 1: 12 - *24 Hours*** **Date: _____**	**DAY 2** Date: _____	**DAY 3** Date: _____	**DAY 4** Date: _____	**DAY 5** Date: _____
ACTIVITY	☐ Bed rest I & V	☐ Bed rest if dense hemiparesis, 1 LOC inability to transfer **OR** ☐ Bed rest with bedside commode and passive ROM	☐ OOB as tolerated	☐ As tolerated	☐ Advance as tolerated	☐ As tolerated
TEST SPECIMENS	☐ CBC ☐ CMP - 1 ☐ PT, PTT ☐ U/A if Indicated ☐ CXR ☐ EKG ☐ CT w/o contrast ☐ Drug screen if indicated ☐ Pulse Ox ☐ TSH if indicated ☐ HDL if indicated ☐ VDRL if indicated		☐ Follow up ALL ABNORMAL labs ☐ Assess need for further diagnostic tests (ex, Cartoid duplex, CT, MRI, echo angiogram) VII	☐ Follow up ALL ABNORMAL labs ☐ PT / PTT if on anticoagulant therapy	☐ Follow up ALL ABNORMAL labs ☐ PT / PTT if on anticoagulant therapy	
DIET	☐ NPO	☐ NURSE OBSERVES FIRST MEAL. Puree diet & have nurse observe. Order dysphagia Tray if indicated VI	☐ Advance as tolerated ☐ If NPO consider enteral feedings	☐ Advance as tolerated VI	☐ Advance as tolerated VI	
MEDS	☐ Aspirin 325 mg po once a day **OR** alternative anti-platelet therapy *IF NO BLEED* ☐ Heparin 5000 units SQ q 12 hr ☐ B/P control II	☐ Aspirin 325 mg po once a day **OR** alternative anti-platelet therapy *IF NO BLEED* ☐ Heparin 5000 units SQ q 12 hr ☐ B/P control II	☐ Assess need for anti-coagulant therapy (consider full dose heparin) ☐ B/P control II	☐ B/P control II ☐ For Ambulatory patients, D/C prophylactic anticoagulants ☐ Consider Coumadin	☐ B/P control II	☐ B/P control II

SUPER SCRIPT (ex ☐ B P control II) **I, II, thru VII - see Guidelines attached**

Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.

PART OF THE MEDICAL RECORD

Your Hospital's Logo Here

CLINICAL PATHWAY

Stroke w/out Thrombolytic Therapy

***EXCLUDES: TPA & Intubated Pts *INCLUDES: Telemetry**

PATIENT IDENTIFICATION

	DAY 1: ***0 - 12 Hours*** **Date:** ______________	**DAY 1:** ***12 - 24 Hours*** **Date:** ______________	**DAY 2** Date: ____________	**DAY 3** Date: ____________	**DAY 4** Date: ____________	**DAY 5** Date: ____________
TREATMENTS	☐ Pneumatic compression device III ☐ Incontinence mgmnt IV ☐ Pressure Ulcer Prevention or mgmnt V ☐ O_2 21 N.C. if Pulse ox < 92% on R.A. ☐ Fall Protocol	☐ Incontinence mgmnt IV ☐ Pressure Ulcer Prevention or mgmnt V	☐ Incontinence mgmnt IV ☐ Pressure Ulcer Prevention or management V ☐ If Pulse Ox < 92% on R.A., continue 0_2 21 N.C. ☐ Bowel mgmnt if indicated	☐ Incontinence mgmnt IV ☐ Pressure Ulcer Prevention or management V ☐ If Pulse Ox < 92% on R.A., continue 0_2 21 N.C.	☐ Incontinence mgmnt IV ☐ Pressure Ulcer Prevention or management V	
CONSULTS	☐ Neurologist ☐ Stroke Team ☐ Psychiatrist	☐ Rehabilitation Evaluation	☐ Swallowing study if indicated [SPEECH PATHOLOGY] VI	☐ If indicated, consider GI consult for PEG placement VI ☐ Nutritional consult if Tube Feeding indicated		
IVS	☐ Saline Lock ☐ IV fluids if indicated	☐ Saline Lock ☐ IV fluids if indicated	☐ Saline Lock	☐ Saline Lock	☐ D/C Saline Lock	
VITAL SIGNS	☐ Neuro checks q _____ hr ☐ VS q 4 hrs (Call H.O. if B/P >200/100 or <100/60; HR>120 or HR <60; RR >24 or RR<8; Chest Pain, SOB, HA) ☐ I/O q shift	☐ Neuro checks q _____ hr ☐ VS q 4 hrs (Call H.O. if B/P >200/100 or <100/60; HR>120 or HR <60; RR >24 or RR<8; Chest Pain, SOB, HA) ☐ I/O q shift	☐ Neuro checks q _____ hr ☐ VS q 4 hrs (Call H.O. if B/P >200/100 or <100/60; HR>120 or HR <60; RR >24 or RR<8; Chest Pain, SOB, HA) ☐ I/O q shift	☐ Neuro checks q _____ hr ☐ VS q 4 hrs (Call H.O. if B/P >200/100 or <100/60; HR>120 or HR <60; RR >24 or RR<8; Chest Pain, SOB, HA) ☐ I/O q shift	☐ D/C Neuro checks ☐ VS q 8 hrs ☐ I/O q shift	☐ VS q 8 hrs
CASE MANAGEMENT / DISCHARGE PLANNING	☐ Stroke Team consult		☐ Direct care giver involved w/ D/C care ☐ Rehab Facility to evaluate patient	☐ Discharge plan identified ☐ Rehab plan established		

SUPER SCRIPT (ex ☐B P control II) **I, II, thru VII - see Guidelines attached**

Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.

PART OF THE MEDICAL RECORD

Your Hospital's Logo Here

CLINICAL PATHWAY
Stroke w/out Thrombolytic Therapy

***EXCLUDES: TPA & Intubated Pts *INCLUDES: Telemetry**

PATIENT IDENTIFICATION

	DAY 1: *0 - 12 Hours* Date: _____	DAY 1: 12 - *24 Hours* Date: _____	DAY 2 Date: _____	DAY 3 Date: _____	DAY 4 Date: _____	DAY 5 Date: _____
TEACHING	☐ Orient patient to environment ☐ Inform patient + family of plan	☐ Discuss diagnosis with patient + family		☐ Continue to educate family on diagnosis		
EVALUATION	_____ Initials _____ Unit	_____ Initials _____ Unit	_____ Initials _____ Unit	_____ Initials _____ Unit	_____ Initials _____ Unit	_____ Initials _____ Unit

SUPER SCRIPT (ex ☐ B P control II) **I, II, thru VII - see Guidelines attached**

Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.

STROKE GUIDELINES

I. TELEMETRY:
If a patient is suspected of having an occult, intermittent arrhythmia or an occult MI, telemetry may be a useful diagnostic tool for 24 hours. If the patient has atrial fibrillation, telemetry is only useful if you are trying to rapidly titrate antiarrhythmic therapy to control the rate for a chronic a-fib.

II. HYPERTENSION MANAGEMENT:
Patients with stroke often have high BP both as a risk factor and also in response to the neurologic damage. Lowering blood pressure too rapidly following stroke may cause further neurologic damage.
For persistent BP>220/120 along with systemic organ failure -- lower by no more than 15%-20% using titratable agents in a monitored setting. Reasonable choices include Labetalol, Esmolol (beneficial effects of cerebral blood flow), Nitroglycerin, or Nitroprusside (watch for cyanide toxicity, especially in patients with rental insufficiency). For persistent BP>220/120 with no organ failure -- reduce BP by no more than 10%-15% over 72 hours. Reasonable meds include oral ACE inhibs, Cardizem, diuretics, beta blockers. Avoid vasodilator, as they may decrease cerebral blood flow (e.g., **no short acting Procardia !**)
For persistent BP>160/100, <220/120 -- No antihypertensive therapy for 72 hours, then start treatment aiming for BP no lower than 160-170/90-100 for 7-10 days following stroke.

III. DVT PROPHYLAXIS:
Patients with lower extremity involvement, or who are unable to ambulate >50 feet for any reason, should receive subcutaneous heparin (unless they have evidence of bleeding on CT scan or have a sensitivity to heparin). Venodynes should be used for those who cannot take heparin. Low molecular weight heparin is more expensive and carries no advantage over regular heparin for this purpose.

PART OF THE MEDICAL RECORD

Your Hospital's Logo Here

Stroke CLINICAL PATHWAY

Stroke w/out Thrombolytic Therapy

***EXCLUDES: TPA & Intubated Pts *INCLUDES: Telemetry**

STROKE GUIDELINES (Continued)

IV. INCONTINENCE MANAGEMENT

BOWEL AND BLADDER TRAINING AS INDICATED

- *Functional incontinence* (from inability to get out of bed): Adult diapers or bedside commode should be considered. Texas catheters increase risk of infection over adult diapers, are more expensive, and have similar nursing requirements.
- *Urge incontinence* (neurogenic bladder): and *Overflow incontinence* (from urinary retention secondary to conditions like BPH): Consider q6h straight catheterization, some patients will require Foley catheter insertion, but attempt to minimize the length of time of indwelling catheters. Once of the leading causes of morbidity/mortality in stroke patients is urosepsis from urinary retention or from Foleys.

V. PRESSURE ULCER PREVENTION:

RISK ASSESSMENT TOOL

Skin Care Protocol Initiated

Pressure Ulcer Risk Assessment completed every 24 hours and Pressure Ulcer Prevention Protocol implemented as indicated for *BRADEN > 17*

Patients with limited mobility or who are bed-bound are at risk for pressure ulcers. Prevention measures: General Skin Care, Pressure / shear reduction, Nutrition, Activity/ Mobility should be assessed. Patients with Pressure Ulcer: Pressure Ulcer Protocol Treatment Algorithm implemented.

VI. ASPIRATION PREVENTION AND NUTRITION:

All patients with altered level of consciousness, severe dysarthria, evident brain stem stroke, weak cough, wet speech, bilateral strokes, or abnormal 3 oz water test (cough or wet voice after swallowing) should have a formal swallowing study prior to taking p.o. If patient is NPO > 24hrs, insert NGT for feeding. Consider consult for PEG placement if prolonged swallowing disorder, but first try changing the consistency of the good given. (Pt may be able to handle thicker liquids, for example). It is controversial whether PEGs actually confer any protection against aspirations.

VII. ADDITIONAL STUDIES:

2-D Echocardiogram

Most patients with suspected cardiogenic stroke have an obvious source of emboli (a-fib, valvular heart disease, dilated cardiomyopathy, recent MI) at presentation. The patients do not need echo for neurologic purposes. The study has greater utility in searching for the occult source of emboli in the few patients who have no clinical risk factors for stroke. Patients with lacunar syndromes generally do not need echo. Patients for whom anticoagulation is contraindicated may not need echo.

Repeat Neuroimaging

Only if major clinical deterioration occurs, or the Dx of stroke is still uncertain due to atypical clinical features, or to rule out hemorrhagic transformation in cardiogenic strokes prior to initiating systemic anticoagulation. CT with contrast is preferable, but carries IV contract risk; MRI is most sensitive, but is more costly and patients need to be able to hold still for prolonged periods.

Evaluation of Arterial Patency

Carotid duplex scanning or carotid MRA: needed only if their information would lead you to consider endarterectomy. (Criteria -- recent ischemic symptoms such as TIA or minor stroke, proven ipsilateral stenosis or 70%-90%, surgical risk < 5%, five year life expectancy > 50%) MRA is same cost, gives same information about carotids in the neck as duplex scanning, and is less operator dependent. However, duplex is more useful in patients who cannot lay still.

SUPER SCRIPT (ex ❑ B P control II) **I, II, thru VII - see Guidelines attached**

Clinical pathways are tools to facilitate and guide multi-disciplinary patient care. They do not represent a standard of care or replace physician orders or clinical judgment. Modifications are made based on documented individual patient needs.

PART OF THE MEDICAL RECORD