



## Montana Stroke Initiative Acute Stroke Orders

### Rural & Frontier Hospitals - Emergency Department Protocol

Patient Name: \_\_\_\_\_ MR# \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Mode of Transport:**  Private Vehicle  EMS  Prehospital Screen Used

**Times:** Symptom Onset or Last Seen Normal: \_\_\_\_\_

Arrival to Emergency Department: \_\_\_\_\_

Initiate the following orders:

- \_\_\_ Vital signs now and q15 minutes: Initial BP \_\_\_\_/\_\_\_\_ Temp \_\_\_\_ °F
- \_\_\_ Neurologic Exam now and q30 minutes
- \_\_\_ mNIH Stroke Scale Score \_\_\_\_ (see next page)
- \_\_\_ Cardiac Monitor
- \_\_\_ O2 per NC or Mask to keep O2 sat >92%
- \_\_\_ IV: 18 gauge. Start 0.9 NS @ 75 cc/hr
- \_\_\_ STAT CBC, Basic Metabolic Panel, UA, Troponin, PT/PTT, INR \_\_\_\_\_
- \_\_\_ STAT finger stick blood glucose if not already done \_\_\_\_\_
- \_\_\_ STAT EKG
- \_\_\_ Accurate weight in Kg. \_\_\_\_\_
- \_\_\_ NPO
- \_\_\_ Tylenol for rectal T > 99.5
- \_\_\_ Foley catheter if severely impaired
- \_\_\_ No heparin, aspirin, or Coumadin
- \_\_\_ Elevate head of bed to 20-30 degree
- \_\_\_ Stat CT if available

**BP Management:** Do not attempt to lower BP unless BP >220/120 on two separate measurements 15 min. apart

Is patient a candidate for : Acute Thrombolytic Treatment (see below)  Yes  No  
Transfer to a Stroke Center (see form)  Yes  No

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_\_ Physician Signature \_\_\_\_\_



## Montana Stroke Initiative Modified NIH Stroke Scale

Item Name	Scoring Guide	Patient Score
LOC Questions 1. Age 2. Name	0=Answers both correctly 1=Answers one correctly 2=Answers neither correctly	
LOC Commands 1. Open and close eyes 2. Open and close hand	0=Performs both correctly 1=Performs one correctly 2=Performs neither correctly	
Gaze	0=normal 1=partial gaze palsy 2=total gaze palsy	
Visual Field Cut (homonymous)	0=no visual loss 1=partial field cut 2=complete field cut 3=no vision	
Left Arm Motor	0=no drift 1=drift before 10 seconds 2=falls before 10 seconds 3=no effort against gravity 4=no movement	
Right Arm Motor	0=no drift 1=drift before 10 seconds 2=falls before 10 seconds 3=no effort against gravity 4=no movement	
Left Leg Motor	0=no drift 1=drift before 5 seconds 2=falls before 5 seconds 3=no effort against gravity 4=no movement	
Right Leg Motor	0=no drift 1=drift before 5 seconds 2=falls before 5 seconds 3=no effort against gravity 4=no movement	
Sensory	0=normal 1=abnormal	
Language	0=normal 1=mild aphasia 2=severe aphasia 3=mute or global aphasia	
Neglect	0=normal 1=mild 2=severe	

Total Score (out of 31) \_\_\_\_\_



## Acute Thrombolytic Therapy for Ischemic Stroke

**Exclusion Criteria: If any of the following apply, patient is not a candidate**

- CT Brain with any hemorrhage (Note: patients with large hypodensities in appropriate region on CT should be questioned in greater detail regarding true time of onset or last seen normal)
- BP >185/110 at time of treatment
- Minor symptoms (NIHSS <4) or Rapidly improving symptoms
- Clinical history suggestive of subarachnoid hemorrhage even with normal CT
- INR >1.7 or receiving heparin **with** elevated PTT (Note: patients receiving heparin but have a normal PTT prior to treatment may still be considered eligible candidates)
- Seizure at onset
- Platelets <100K
- History of any of the following:
  - Intracranial hemorrhage/Neoplasm/AVM
  - Major surgery in <14 days
  - Stroke or head trauma in last 3 months
  - Arterial puncture at non-compressible site < 7 days
  - GI or GU hemorrhage in last 21 days
  - Lumbar puncture in past 24hrs
  - Recent MI (< 3 wks) w/ or w/o presumed pericarditis
- Glucose <50 or >400 (Note: this may be corrected to see if symptoms resolve. If they do not resolve with normalization of values then patient may be considered eligible)
- Presumed septic embolus

Note: If patient appears to meet criteria for acute thrombolytic therapy see MSI ED treatment orders at <http://www.montanastroke.org>



## Acute Stroke Treatment/Transfer Questionnaire

Patient w/ moderate to large stroke (mNIHSS $\geq$ 4)	<input type="checkbox"/> YES <input type="checkbox"/> NO
Symptom onset or last seen normal < 6 hrs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient hemodynamically stable	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient/family desire aggressive resuscitation efforts	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient is without significant dementia	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient is without end stage, terminal illness	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient is not a Nursing Home resident/ Dependent ADLs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Patient would be a good candidate for major surgical procedures (CABG, Total Hip etc.)	<input type="checkbox"/> YES <input type="checkbox"/> NO
If “ <b>NO</b> ” to any of the above, the patient would generally not be considered a treatment candidate but may be considered for transfer to a facility that provides a higher level of care.	

### Transfer Protocol

Initiate Transfer protocol ASAP to avoid unnecessary delays

Contact ED of receiving facility and ask for ED physician or Neurologist on-call

Provide the following details when communicating with receiving facility:

1. Symptom onset time or last seen normal in as much detail as possible
2. mNIHSS Score
3. Presence of atrial fibrillation
4. Whether patient is taking warfarin or not
5. BP, glucose and pertinent lab work
6. EKG results

Keep NPO

Follow BP parameters closely

Fax documents to receiving facility

1. Acute Stroke Orders form
2. Modified NIH Stroke Scale form
3. Labs when available
4. EKG