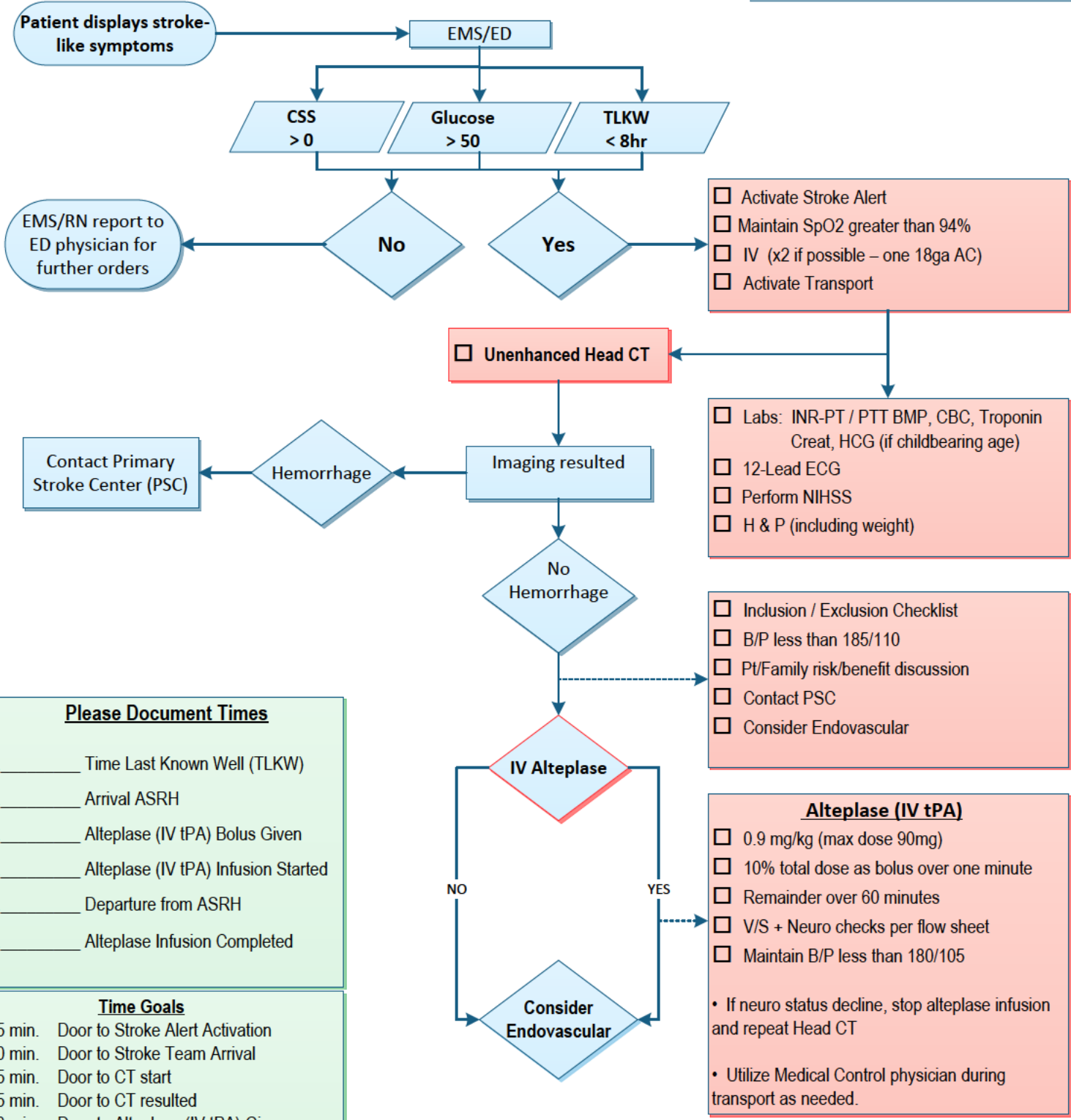


Drip & Ship Protocol
Acute Stroke Ready Hospital (ASRH)
 Duluth Area Primary Stroke Center (St. Luke's & St. Mary's – Essentia)

PATIENT LABEL



Please Document Times

- _____ Time Last Known Well (TLKW)
- _____ Arrival ASRH
- _____ Alteplase (IV tPA) Bolus Given
- _____ Alteplase (IV tPA) Infusion Started
- _____ Departure from ASRH
- _____ Alteplase Infusion Completed

Time Goals

15 min. Door to Stroke Alert Activation
 10 min. Door to Stroke Team Arrival
 25 min. Door to CT start
 45 min. Door to CT resulted
 60 min. Door to Alteplase (IV tPA) Given
 90 min. Door to Transfer out of ASRH

St. Luke's Call: 218-249-4444
 Fax packet / records: 218-249-5590
 Call nursing report to ICU: 218-249-5654

St. Mary's – Essentia Call: 1-877-786-4944
 Fax packet / records: 218-786-7396
 Call nursing report & updated ETA: 1-877-786-4944

NIHSS

Category	Scale Definition	Date/Time	Date/Time	Date/Time
1a. Level of Consciousness (Alert, drowsy, etc.)	0= Alert 1= Drowsy	2= Stuporous 3= Coma		
1b. LOC Question (Month, age)	0= Answers both correctly 1= Answers one correctly	2= Answers neither correctly		
1c. LOC Commands (Open, close eyes, make fist, let go)	0= Performs both correctly 1= Performs one correctly	2= Performs neither task		
2. Best Gaze (Eyes open – patient follows examiners fingers/face)	0= Normal 1= Partial gaze palsy	2= Forced deviation		
3. Visual (Introduce visual stimulus [or threat] to patient visual field quadrants)	0= No visual loss 1= Partial hemianopia (blind)	2= Complete hemianopia 3= Bilateral hemianopia		
4. Facial Palsy (Show teeth, raise eyebrows, and squeeze eyes shut)	0= Normal 1= Minor paralysis	2= Partial paralysis 3= Complete paralysis		
5. Motor Arm 5a. Left Arm (Elevate extremity to 90 and score drift/movement)	0= No drift 1= Drift 2= Some effort against gravity	3= No effort against gravity 4= No movement UN=Amputation or joint fusion		
5b. Right Arm (Elevate extremity to 90 and score drift/movement)	0= No drift 1= Drift 2= Some effort against gravity	3= No effort against gravity 4= No movement UN=Amputation or joint fusion		
6. Motor Leg 6a. Left Leg (Elevate extremity to 30 and score drift/movement)	0= No drift 1= Drift 2= Some effort against gravity	3= No effort against gravity 4= No movement UN=Amputation or joint fusion		
6b. Right Leg (Elevate extremity to 30 and score drift/movement)	0= No drift 1= Drift 2= Some effort against gravity	3= No effort against gravity 4= No movement UN=Amputation or joint fusion		
7. Limb Ataxia (Finger, nose, heel down shin)	0= Absent 1= Present in one limb	2= Present in both limbs UN=Amputation or joint fusion		
8. Sensory (Pinprick to face, arm [trunk] and leg – compare side to side)	0= Normal 1= Mild to moderate sensory loss	2= Severe to total sensory loss		
9. Best Language (Name items, describe a picture and read sentences)	0= No aphasia, normal 1= Mild to moderate aphasia	2= Severe aphasia 3= Mute, global aphasia		
10. Dysarthria (Evaluate speech clarity by patients repeating listed words)	0= Normal 1= Mild to moderate	2= Severe dysarthria UN= Intubated		
11. Extinction and inattention (Use information from prior testing to identify neglect or double simultaneous stimuli)	0= No neglect 1= Partial neglect	2= Profound neglect		
		Score		
		Initial		

Initials: _____ Signature: _____

Initials: _____ Signature: _____

Acute Stroke “Drip and Ship” Protocol
Duluth Area Primary Stroke Center (St. Luke’s & St. Mary’s-Essentia)

Version 11.15 Page 2 of 7

Pt. Name: _____

DOB: ____/____/____

(Place Patient Label)

Alteplase Inclusion / Exclusion Criteria

Inclusion Criteria	Yes	No
Symptoms suggestive of ischemic stroke that are deemed to be disabling	<input type="checkbox"/>	<input type="checkbox"/>
Improving symptoms that remain disabling	<input type="checkbox"/>	<input type="checkbox"/>
Able to initiate IV alteplase within 4.5 hours of time last known well or at baseline	<input type="checkbox"/>	<input type="checkbox"/>
BP < 185/110 (may be lowered using antihypertensive agents prior to alteplase)	<input type="checkbox"/>	<input type="checkbox"/>

Contraindications	No	Yes
CT demonstrates extensive changes or acute intracranial hemorrhage	<input type="checkbox"/>	<input type="checkbox"/>
Severe head trauma within past 3 months or post-traumatic infarction	<input type="checkbox"/>	<input type="checkbox"/>
Intracranial or spinal surgery within past 3 months	<input type="checkbox"/>	<input type="checkbox"/>
Suspicion of subarachnoid hemorrhage	<input type="checkbox"/>	<input type="checkbox"/>
INR > 1.7, aPTT > 40 seconds, PT > 15 seconds or Platelet Count < 100,000/mm ³	<input type="checkbox"/>	<input type="checkbox"/>
Received LMWH within past 24 hours (only therapeutic dose for treatment of DVT/PE)	<input type="checkbox"/>	<input type="checkbox"/>
Received Novel Oral Anticoagulant within past 48 hours (unless normal coagulation can be established via aPTT, INR, platelet count, or direct factor Xa activity assay)	<input type="checkbox"/>	<input type="checkbox"/>
Active internal bleeding	<input type="checkbox"/>	<input type="checkbox"/>
GI bleeding within the past 21 days or GI malignancy	<input type="checkbox"/>	<input type="checkbox"/>
Infective endocarditis	<input type="checkbox"/>	<input type="checkbox"/>
Intra-axial, intracranial neoplasm	<input type="checkbox"/>	<input type="checkbox"/>

Considerations for Exclusion: (individualized risk vs. benefit analysis must be done)	No	Yes
Mild strokes with non-disabling symptoms	<input type="checkbox"/>	<input type="checkbox"/>
Blood Glucose < 50 or > 400 mg/dl (should treat if symptoms persist after glucose normalized)	<input type="checkbox"/>	<input type="checkbox"/>
Seizure at stroke onset (determine if symptoms post-ictal phenomenon vs. stroke)	<input type="checkbox"/>	<input type="checkbox"/>
Ischemic stroke in past 3 months	<input type="checkbox"/>	<input type="checkbox"/>
History of intracranial hemorrhage (consider cause, time since hemorrhage, volume of encephalomalacia and whether in the same vascular distribution as current stroke)	<input type="checkbox"/>	<input type="checkbox"/>
Major surgery within 14 days	<input type="checkbox"/>	<input type="checkbox"/>
Major trauma within 14 days	<input type="checkbox"/>	<input type="checkbox"/>
Concurrent or recent (within 3 months) myocardial infarct	<input type="checkbox"/>	<input type="checkbox"/>
History of bleeding diathesis	<input type="checkbox"/>	<input type="checkbox"/>
Patients with hx of stroke and diabetes mellitus in the 3-4.5 hour window	<input type="checkbox"/>	<input type="checkbox"/>

Alteplase Inclusion / Exclusion Criteria

Efficacy and Risk Not Well Established	No	Yes
Age < 18	<input type="checkbox"/>	<input type="checkbox"/>
Sickle Cell Disease	<input type="checkbox"/>	<input type="checkbox"/>
Intracranial arterial dissection	<input type="checkbox"/>	<input type="checkbox"/>
Current Malignancy	<input type="checkbox"/>	<input type="checkbox"/>
Unruptured unsecured intracranial vascular malformation	<input type="checkbox"/>	<input type="checkbox"/>
Unsecured giant aneurysm (> 10 mm)	<input type="checkbox"/>	<input type="checkbox"/>
Acute pericarditis if mild/moderate stroke likely to produce mild disability	<input type="checkbox"/>	<input type="checkbox"/>
Arterial puncture at a non-compressible site in the past 7 days	<input type="checkbox"/>	<input type="checkbox"/>
NIHSS > 25 in 3-4.5 hour window	<input type="checkbox"/>	<input type="checkbox"/>

Conclusion: Must choose one

- Patient meets criteria for Alteplase (tPA)
- Patient does not meet criteria for Alteplase (tPA)

Comments:

MD Signature: _____

Date/Time: ____ / ____ / ____

TPA Vitals and Neuro Checks

Bolus administration time: _____

Infusion start time: _____

B/P Goal: Less than 180/105.
If greater treat w/in 5 minutes

Pupil reaction		Movement	Smile	Tongue Deviation
B- Brisk	I - Irregular	N - Normal	S - Symmetrical	M- Midline
S - Sluggish	L - IOL	W - Weak	R - Right droop	R- Right
F- Fixed	C - cataract	C - Can't overcome gravity	L - Left droop	L - Left
H - Hippus	U - Unable to assess	S - Slight movement only	U - Unable to assess	U - Unable to assess
		P - Complete paralysis		

Date:	Q 15min x 2hrs								Q30 min x 6hrs				
	Pre TPA	1	2	3	4	5	6	7	8	1	2	3	4
Time:													
HR													
BP													
RR													
Pupil size R mm													
Pupil size L mm													
Pupil reaction R													
Pupil reaction L													
R arm movement													
L arm movement													
R leg movement													
L leg movement													
Smile													
Tongue Deviation													
RN Initials													
	Q 30 min x 6hrs								Q 1hr x 16hrs (continue on back)				
	5	6	7	8	9	10	11	12	1	2	3	4	5
Time:													
HR													
BP													
RR													
Pupil size R mm													
Pupil size L mm													
Pupil reaction R													
Pupil reaction L													
R arm movement													
L arm movement													
R leg movement													
L leg movement													
Smile													
Tongue Deviation													
RN Initials													

Acute Stroke "Drip and Ship" Protocol

Duluth Area Primary Stroke Center (St. Luke's & St. Mary's-Essentia)

V10.6.17

Pt. Name: _____

DOB: ____/____/____

(Or Place Patient Label)

Pupil reaction		Movement	Smile	Tongue Deviation
B- Brisk	I - Irregular	N - Normal	S - Symmetrical	M- Midline
S - Sluggish	L - IOL	W - Weak	R - Right droop	R- Right
F- Fixed	C - cataract	C - Can't overcome gravity	L - Left droop	L - Left
H - Hippus	U - Unable to assess	S - Slight movement only	U - Unable to assess	U - Unable to assess
		P - Complete paralysis		

	Q1hr x 16hrs (Further vitals and neuro checks per physician order)										
	6	7	8	9	10	11	12	13	14	15	16
Time:											
HR											
BP											
RR											
Pupil size R mm											
Pupil size L mm											
Pupil reaction R											
Pupil reaction L											
R arm movement											
L arm movement											
R leg movement											
L leg movement											
Smile											
Tongue Deviation											
RN Initials											

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

_____/_____
RN/EMT-P Signature Initials

Acute Stroke "Drip and Ship" Protocol
Duluth Area Primary Stroke Center (St. Luke's & St. Mary's-Essentia)
 V10.6.17

Pt. Name: _____
 DOB: ____/____/____
 (Place Patient Label)

Acute Stroke Blood Pressure Management

Duluth Area Primary Stroke Center (St. Luke's & St. Mary's-Essentia)

BEFORE IV Alteplase (tPA) or other acute reperfusion therapy BP > 185/110 mmHg

- **Systolic > 185 mmHg or Diastolic > 110 mmHg**
 - Labetalol 10 – 20 mg IV over 1-2 minutes, may repeat x1
- **OR**
- Nicardipine infusion 5mg/hr, titrate by 2.5 mg/hr every 5-15 min, maximum dose 15 mg/hr. When desired BP attained, adjust to maintain proper BP limits.
- **OR**
- Other agents (hydralazine, enalaprilat, etc.) may be considered
- **If BP is not maintained at or below 185/110 mmHg, do not administer tPA**

DURING and AFTER IV Alteplase (tPA) or other acute reperfusion therapy

- **Maintain BP at or below 180/105 for at least the first 24 hours post tPA**
- **Monitor BP and Neuros q 15 min x 2 hrs, q 30 min x 6 hrs and q 1 hr x 16 hrs**
- **Systolic > 180 - 230 or Diastolic > 105-120**
 - Labetalol 10 mg IV followed by continuous IV infusion 2-8 mg/min
- **OR**
- Nicardipine infusion 5mg/hr, titrate by 2.5 mg/hr every 5-15 min. Max. dose 15 mg/hr
- **If BP not controlled or diastolic BP > 140 mmHg, consider IV sodium nitroprusside**

Non-Alteplase (tPA) Patient

- Most patients with ischemic stroke do not require treatment for hypertension; however, it is generally agreed that patients with markedly elevated BP may have their BP lowered. A reasonable goal would be to lower BP by ~15% during the first 24 hours after onset of stroke. The level of BP that would mandate such a treatment is not known, but consensus exists that *medications should be withheld unless systolic BP is > 220 mmHg or the diastolic is > 120 mmHg.*
- **Avoid Hypotension**

Acute Stroke "Drip and Ship" Protocol
Duluth Area Primary Stroke Center (St. Luke's & St. Mary's-Essentia)

V10.6.17