

ROUTINE ORDERS – Alteplase for Acute Ischemic Stroke for 4.5 hour window

<p>Prescriber instructions: 1) The prescriber MUST check an empty box (☐) to activate the corresponding order. 2) An order with a black box ■ will be activated UNLESS the prescriber crosses out the complete order with a line and initials.</p>					
Date: year/month/day	Time:	Weight (kg): _____ Height (cm): _____	Allergies: ☐ None ☐ Yes Review electronic record	*Order #	Initials
Advance Care Directive					
☐ No ☐ Yes - Substitute Decision Maker/Advance Directive/Care Wish Form has been completed and is in chart					
PRIOR TO ADMINISTRATION					
<p>■ Exclusion criteria for alteplase and endovascular treatment reviewed (see over) Benchmark: Door to Triage 1 minute ■ Notify Stroke Team Benchmark: Door to Stroke Team 15 minutes ■ Establish 2 peripheral IV sites in same arm if possible ■ Glucose, A1C, Troponin, CK, TSH, INR, PTT, CBC and Diff., Electrolytes, BUN, Creatinine, eGFR ☐ Pregnancy test - serum blood in women of child bearing age ■ ECG ☐ Chest x-ray if evidence of acute heart disease or pulmonary disease ■ STAT CT scan of head without contrast and CT Angiogram (CTA) Benchmark: Door to CT, CTA scan 25 minutes ■ Emergency consent for CTA ■ Most responsible physician (MRP) identified for admission ■ If SBP is greater than 180 mmHg and/or DBP is greater than 105 mmHg notify MRP and give: Labetalol 10 mg IV over 1-2 minutes (may repeat q10min up to maximum cumulative dose of 150 mg) or _____</p>					
<p>■ Alteplase Benchmark: Door to needle 30 minutes See Chart on back to verify calculations TOTAL DOSE: 0.9 mg/kg (to a maximum of 90 mg) = _____ mg - BOLUS: 0.09 mg/kg Alteplase IV over 1 minute (to maximum 9 mg) = _____ mg - INFUSION: 0.81 mg/kg Alteplase IV over 1 hour (to maximum 81 mg) = _____ mg</p>					
Diet					
■ NPO except for medications x 24 hrs					
Activity					
■ Bedrest x 24 hrs					
Vital Signs and Monitoring					
<p>■ Vital Signs and Canadian Neurological Scale q15min during administration, then q30min x 2 hrs, then q1h x 5 hrs, then q4h ■ Observe tongue and oropharynx q15min x 6. If facial, tongue and/or pharyngeal angioedema, stop infusion and notify physician ■ Continuous cardiac monitoring</p>					
Lines/Tubes/Respiratory					
■ O ₂ to keep SaO ₂ greater than 92%					
Intravenous Fluids					
■ IV Normal Saline _____ mL/hr					
Lab work and Diagnostics					
■ CT scan of head post Alteplase within 24 hours					
Medication					
<p>No anticoagulants or antiplatelet drugs for at least 24 hours after alteplase (e.g. ASA, heparin, dalteparin, tinzaparin, enoxaparin, warfarin, rivaroxaban, dabigatran, apixaban, ticlopidine, clopidogrel, prasugrel, ticagrelor, dipyridamole). ■ DimenhyDRINATE 25-50 mg IV q4h prn ■ Acetaminophen 650 mg PO/rectal q4h prn if temp greater than 37.5°C ■ If SBP is greater than 180 mmHg and/or DBP is greater than 105 mmHg notify MRP and give: Labetalol 10 mg IV over 1-2 minutes (may repeat q10min up to maximum cumulative dose of 150 mg) or _____</p>					

* Enter Order # and initial (by Nurse/Clerical)

Prescriber Signature: _____ Date: _____ Time: _____
 Transcriber Signature: _____ Date: _____ Time: _____
 Nurse Reviewer Signature: _____ Date: _____ Time: _____

ROUTINE ORDERS – Alteplase (rt-PA) for Acute Ischemic Stroke for 4.5 hour window

EXCLUSION CRITERIA		
Diagnosis, work-up and start of administration of Alteplase must be accomplished within 4.5 hours of the onset of symptoms. * All answers to the following exclusion must be <u>NO</u> to be a candidate for Alteplase ***Relative Exclusion Criteria for Alteplase ** Exclusion for Alteplase but patients may still be eligible for Endovascular Therapy depending on CTA results		
Emergency Department		
1. Onset of symptoms was greater than 4 hours: a. Onset of symptoms was witnessed OR b. Last seen normal	YES YES	NO NO
2. Pericarditis within last 3 months	YES	NO
3. Myocardial infarct (MI) within the last 3 weeks	YES	NO
4. History of intracranial hemorrhage, arteriovenous malformation or aneurysm	YES	NO
5. Chest pain with neurological event suggestive of aortic dissection or MI	YES	NO
6. **Major surgery within last 14 days	YES	NO
7. **Serious head trauma or intracranial surgery within the last 3 months	YES	NO
8. **Use of anticoagulants in the previous 48 hrs in conjunction with an INR greater than 1.7 Note: Use of antiplatelet agents is not a contraindication	YES	NO
9. **Use of oral direct thrombin inhibitor agents or factor Xa inhibitors, e.g. dabigatran, rivaroxaban, apixaban	YES	NO
10. **Gastrointestinal or urinary bleeding within 21 days, or active internal bleeding	YES	NO
Attending Physician		
11. Clinical presentation consistent with subarachnoid hemorrhage even if CT scan normal	YES	NO
12. CT evidence of cerebral hemorrhage or cerebral infarction with ASPECT score less than 5	YES	NO
13. Blood pressure greater than 180/105, despite 23 doses of Labetalol IV (See Orders)	YES	NO
14. CT shows hemorrhage or mass effect	YES	NO
15. Other illness that could limit effectiveness or increase risk of bleeding in the judgment of the physician	YES	NO
16. Platelet count less than 100,000	YES	NO
17. **Glucose less than or equal to 2.7 mmol/L or greater than 22.2 mmol/L	YES	NO
18. **Seizure preceding onset of neurologic deficits	YES	NO
19. **Rapidly improving neurological signs or minimal deficit. (NIHSS less than 4)	YES	NO
20. **Profound stroke with obtundation, fixed eye deviation and complete hemiplegia (NIHSS greater than 25)	YES	NO
21. **Arterial puncture at non-compressible site (e.g. subclavian artery or vein); exclude patients only if there is a significant risk of hemorrhage at a site we could not control or lumbar puncture within last 7 days.	YES	NO
22. **On IV heparin and have PTT greater than 40	YES	NO
23. **Low molecular weight heparin at full anticoagulant levels	YES	NO
24. ***Less than 18 years of age	YES	NO
25. ***Pregnancy	YES	NO
Stroke Endovascular Mechanical Thrombectomy (EVT) Criteria: <ul style="list-style-type: none"> Acute ischemic stroke of large proximal artery occlusion (Internal Carotid Artery, Middle Cerebral Artery or Basilar Artery) and symptom onset less than 4.5 hours If EVT candidate, contact Hamilton General Hospital via Criticall to determine eligibility.		

Alteplase Weight Dosing Chart

Patient Weight		TOTAL DOSE 0.9 mg/kg (Dose in mg= VTBI* in mL)	INFUSION 0.81 mg/kg over 1 hr (Dose in mg= VTBI* in mL)	BOLUS 0.09 mg/kg over 1 min (Dose in mg= VTBI* in mL)
kg	lbs			
41	90	36.9	33.2	3.69
42	92	37.8	34.0	3.78
43	95	38.7	34.8	3.87
44	97	39.6	35.6	3.96
45	99	40.5	36.5	4.05
46	101	41.4	37.3	4.14
47	103	42.3	38.1	4.23
48	106	43.2	38.9	4.32
49	108	44.1	39.7	4.41
50	110	45	40.5	4.5
51	112	45.9	41.3	4.59
52	114	46.8	42.1	4.68
53	117	47.7	42.9	4.77
54	119	48.6	43.7	4.86
55	121	49.5	44.6	4.95
56	123	50.4	45.4	5.04
57	125	51.3	46.2	5.13
58	128	52.2	47.0	5.22
59	130	53.1	47.8	5.31
60	132	54	48.6	5.4
61	134	54.9	49.4	5.49
62	136	55.8	50.2	5.58
63	139	56.7	51.0	5.67
64	141	57.6	51.8	5.76
65	143	58.5	52.7	5.85
66	145	59.4	53.5	5.94
67	147	60.3	54.3	6.03
68	150	61.2	55.1	6.12
69	152	62.1	55.9	6.21
70	154	63	56.7	6.3
71	156	63.9	57.5	6.39
72	158	64.8	58.3	6.48
73	161	65.7	59.1	6.57
74	163	66.6	59.9	6.66

Patient Weight		TOTAL DOSE 0.9 mg/kg (Dose in mg= VTBI* in mL)	INFUSION 0.81 mg/kg over 1 hr (Dose in mg= VTBI* in mL)	BOLUS 0.09 mg/kg over 1 min (Dose in mg= VTBI* in mL)
kg	lbs			
75	165	67.5	60.8	6.75
76	167	68.4	61.6	6.84
77	169	69.3	62.4	6.93
78	172	70.2	63.2	7.02
79	174	71.1	64.0	7.11
80	176	72	64.8	7.2
81	178	72.9	65.6	7.29
82	180	73.8	66.4	7.38
83	183	74.7	67.2	7.47
84	185	75.6	68.0	7.56
85	187	76.5	68.9	7.65
86	189	77.4	69.7	7.74
87	191	78.3	70.5	7.83
88	194	79.2	71.3	7.92
89	196	80.1	72.1	8.01
90	198	81	72.9	8.1
91	200	81.9	73.7	8.19
92	202	82.8	74.5	8.28
93	205	83.7	75.3	8.37
94	207	84.6	76.1	8.46
95	209	85.5	77.0	8.55
96	211	86.4	77.8	8.64
97	213	87.3	78.6	8.73
98	216	88.2	79.4	8.82
99	218	89.1	80.2	8.91
100 and above	220	90	81.0	9

* VTBI = Volume to be infused on IV pump.