

Brain Attack Guideline

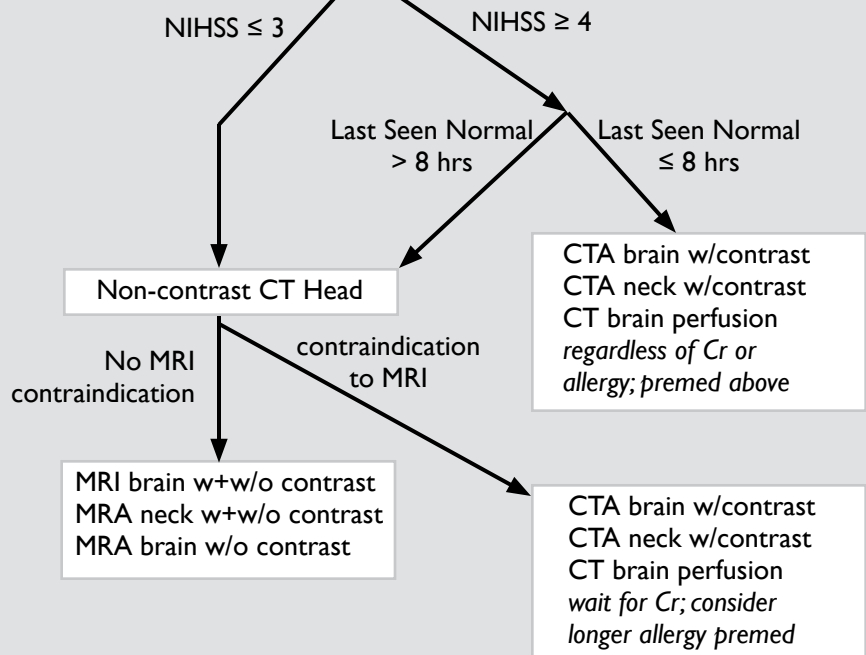
Patient Weight:

lb /2.2 = kg

Use **DEM NIH Stroke Scale Worksheet** graphics for testing patient

Level of Consciousness	<input type="checkbox"/>	0-alert	1-easy to arouse	2-hard to arouse	3-reflexes/unresponsive
LOC Questions	<input type="checkbox"/>	0-month/age right	1-one right	2-neither right	
LOC Commands	<input type="checkbox"/>	0-eye-close/make fist both right	1-one right	3-neither correct	
Best Gaze	<input type="checkbox"/>	0-normal	1-partial palsy	2-forced deviation	
Visual	<input type="checkbox"/>	0-normal	1-partial one eye	2-partial both eyes	3-blind
Facial Palsy	<input type="checkbox"/>	0-normal	1-minor	2-partial	3-complete
Motor Arm, Left	<input type="checkbox"/>	0-no drift	1-drift	2-some effort	3-no effort 4-no movement UN-cannot
Motor Arm, Right	<input type="checkbox"/>	0-no drift	1-drift	2-some effort	3-no effort 4-no movement UN-cannot
Motor Leg, Left	<input type="checkbox"/>	0-no drift	1-drift	2-some effort	3-no effort 4-no movement UN-cannot
Motor Leg, Right	<input type="checkbox"/>	0-no drift	1-drift	2-some effort	3-no effort 4-no movement UN-cannot
Limb Ataxia	<input type="checkbox"/>	0-normal	1-one limb	2-two limbs	UN-cannot
Sensory	<input type="checkbox"/>	0-normal	1-mild/moderate	2-severe/total	
Best Language	<input type="checkbox"/>	0-normal	1-mild/moderate aphasia	2-severe	3-mute
Dysarthria	<input type="checkbox"/>	0-normal	1-mild-moderate	2-severe	UN-intubated
Extinction and Inattention	<input type="checkbox"/>	0-normal	1-inattention/extinction	2-profound hemi-inattention/extinction	

NIH Stroke Scale:



Dye reaction protocol:
 famotidine (Pepcid) 20 mg IV
 + diphenhydramine (Benadryl) 50 mg
 + methylprednisolone (Solumedrol) 125 mg IV

Are patient's neuro symptoms from an intracranial bleed?
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Brain Attack Guideline

Does patient need an insulin drip?
bedside or lab glucose >200 mg/dL

Yes
→

Insulin infusion

Usual is 2 units/hr, more if glucose is very high
Glycemic goal is 120-200: usually ask to be alerted if <120 or > 200.
While on insulin drip, usually order Q 1 hour fingerstick blood sugar.

Does patient need fever management?
temperature >38° C

Yes
→

acetaminophen PO

Usual is 15 mg/kg PO; 1000 mg for 70 kg adult; best in multiples of 325 or 500 mg

or, if patient fails bedside swallowing screen,

acetaminophen PR

Usual is 30 mg/kg PO; 2000 mg for 70 kg adult; best in multiples of 120 or 650 mg

Does patient need hypertension management?

Yes
→

Acute ischemic stroke getting thrombolytics and BP > 185/110 Q5' x2 or, Intracranial hemorrhage: lower systolic BP 20% below baseline, diastolic BP goal 90-110.

labetalol (caution if asthma) 5 mg IV over 2 minutes then, 10 mg IV Q 10 minutes PRN
titrate to goal
have nurse hold if HR < 60; or

hydralazine 10 mg IV push, then, 10 mg IV Q 5 minutes PRN
titrate to goal; or

nicardipine drip

start at 5 mg/hr (usual dose: 0-15 mg/hr)
titrate to goal

Thrombolysis Checklist: Absolute Criteria

All must be checked to give IV tPA. If unable to check any box, IV tPA is not appropriate: discuss invasive options with stroke neurologist; if none, check swallowing test and give ASA (324 mg chew and swallow, or 300 mg PR)

- Acute ischemic CVA
- Age ≥ 18 years
- No seizure at onset/reason to suspect SAH
- No known bleeding diathesis
- No heparin with increased PTT
- No neurosurgery/major head trauma in 3 mo.
- Never any CNS aneurysm, AVM, bleed or neoplasm
- No major surgery or trauma within 14 days
- No LP within 7 days
- No active GI/GU bleeding within 21 days
- BP ≤ 185/110 now (may be on IV meds)
- Platelets > 100,000
- INR ≤ 1.7
- No hemorrhage on CT read by neuroradiologist

Thrombolysis Checklist: Relative Criteria

If cannot check all, relative contraindication to systemic thrombolysis

- No LMWH within 24 hours
- No rapidly improving neurological status
- Glucose 50-400
- Not pregnant
- No early signs of infarct (edema, sulcal effacement) on CT read by neuroradiologist/ stroke neurologist

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Brain Attack Guideline**alteplase (ACTIVASE, tPA)** mg0.9 mg/kg, actual body weight,
max. dose 90 mg.

- Start peripheral IVs to total 2 IVs
- Record infusion start/stop time in nurses' notes
- VS/Limited NIH Stroke Scale q15min during infusion and for 2 hours post-infusion
- No arterial puncture or venous puncture at non-compressible site

give mg over
1-2 minutes

bolus: 10% of total dose

give mg over
1 hour

infusion: 90% of total dose

† Intracranial Bleed**Dysfunctional platelets?**

Yes

→

uremia
platelet function disorder
aspirin/clopidogrel (PLAVIX)
ticlopidine (TICLID)
aspirin/dipyridamole (AGGRENOLX)

DDAVP mcg IV push

usual dose 0.3 mcg/kg; 21 mcg for 70 kg adult

Does patient need platelets?

Yes

→

Platelet count < 100,000: **2 units**
Aspirin response test < 550: **6 units**
Coumadin & aspirin: **10 units**

Does patient need Coumadin reversed?

Yes

→

elevated bedside PT/INR

Vitamin K 10 mg IV STAT at 1 mg/min infusion**Fresh Frozen Plasma** units over 90 minutes

- Usual adult dose 3-4 units.
- FFP dosage ≈ 10 ml/kg
- Approximately 200 mL/unit.
- Order in units rather than mL

- obtain FFP STAT
- start infusion STAT

Is patient a neurosurgical candidate?

Yes

→

Discuss with neurosurgery

0800 - 1600 M-F: Consult Neurosurgical PAs
Weekends/nights call neurosurgery answering service

Consult Anesthesia STAT to see patient in ED**Type and cross 4 units PRBC**Consider **triple lumen** central line