

Referring Hospital Acute Ischemic Stroke Protocol

PATIENT ARRIVAL VIA EMS/TRIAGE WITH S/S STROKE

EMERGENCY DEPARTMENT ASSESSMENT:

If time Last Known Well (LKW) is <8 hours,
or 8-24 hours for NIHSS equal to or greater than 6,
or unclear onset time of symptoms

- Expedite to CT
 - EMS/RN/MD confirm S/S
 - Confirm stability
 - Confirm glucose check >50 mg/dl
 - MD order: Non-contrast head CT
- (Goal <10 min)**

STROKE NEUROLOGY CONSULT
ONE CALL TRANSFER CENTER: 612-863-1000
(Goal <10 min)

Non-Contrast Head CT Review tPA Eligibility

Positive CT Results = Bleed
Consult Neurosurgery or Neuro
Interventional Radiologist (NIR)
as appropriate

NEGATIVE HEAD CT/tPA CANDIDATE?
ADMINISTER FULL DOSE IV tPA
(Goal <40 min D2N)

**DO NOT delay tPA while proceeding with
Intra - Arterial (IA) workup**

NIHSS ≥6 or global aphasia

NO

Plan urgent transfer

YES

Abbott Northwestern Hospital stroke neurologist
will contact NIR for consideration of IA Treatment,
if deemed appropriate

To contact the Stroke
Neurology Service:
One Call Transfer Center
Any patient. Any time.
612-863-1000

IV-tPA (Alteplase) for Acute Ischemic Stroke Reference

INDICATION New signs of stroke within **4.5 hours** of last known well

CHECKLIST:

- ✓ Times: Last known well, IV-tPA start & stop, 50 ml NS flush start and stop
- ✓ Weight documented
- ✓ Blood pressure $\leq 185/110$ prior to start
- ✓ Glucose >50 mg/dl
- ✓ Confirm no bleed
- ✓ Timeout with neurologist/MD
- ✓ Consent (if able)

BLOOD PRESSURE PARAMETERS:

- ✓ Prior to bolus $\leq 185/110$
 - o → labetalol IVP 10-20mg over 2min, hold for HR <50 or S/S bronchospasm, q10min x2
 - o → nicardipine gtt 5-15mg, titrate q15min
- ✓ During infusion: $\leq 180/105$

VITAL SIGNS & NEURO CHECKS:

- ✓ Prior: q10-20
- ✓ Immediately before bolus
- ✓ Q15min for 2 hrs (1 hour post completion)
- ✓ Q30min for 6 hrs
- ✓ Q1hr for 24 hrs post infusion
- Neuro Checks:** LOC, orientation, communication, facial motor and gross motor strength

POST TPA CARE:

- ✓ 50 ml NS flush with **SAME RATE & SAME LINE**
- ✓ Direct pressure or pressure dressings for puncture sites
- ✓ 2 hours post: no foley or NG
- ✓ 3 hours post: avoid/delay venous or arterial puncture
- ✓ 24 hours post: no antithrombotic
- ✓ Call neurology or hospitalist with any signs of major systemic bleeding
- ✓ Orthostatic BP when up 1st time

IV-tPA (Alteplase) Contraindication / Considerations for Acute Ischemic Stroke

B	Bleeding / Bleeding Risk	<ul style="list-style-type: none"> • Acute bleeding diathesis or coagulopathy • Platelets <100 thou/cu mm • Active internal bleeding • Active or recent vaginal bleeding with clinically significant anemia (consult GYN and consider stroke severity) • Arterial puncture at non-compressible site • GI bleeding within 21 days (limited data >7 days may be acceptable)
A	Anticoagulation	<ul style="list-style-type: none"> • Anticoagulation with INR >1.7 or aPTT >40 sec • LMW Heparin within 24 hours • Direct thrombin inhibitors or Direct Factor Xa Inhibitors (NOAC) within 48 hours
S	Surgery / Pregnancy	<ul style="list-style-type: none"> • Intracranial or spinal surgery • Major surgery or serious trauma within 14 days • Current pregnancy or early postpartum (<14 days) (consult OB/GYN)
I	Intracranial Hx	<ul style="list-style-type: none"> • Intracranial hemorrhage (excluding microbleeds) current or recent history • Early extensive ischemic changes • Ischemic stroke within 3 months • Intracranial neoplasm (consider hx, location and bleeding risk) • Intracranial vascular malformation unruptured and untreated (consider stroke severity)
C	Cardiovascular Hx	<ul style="list-style-type: none"> • Infective endocarditis • Stroke associated with aortic arch dissection • Elevated blood pressure despite aggressive treatment (SBP>185 or DSP >110) • Severe stroke with acute pericarditis (consult cardiology) • Left atrial or ventricular thrombus (consider stroke severity)
T	Trauma	<ul style="list-style-type: none"> • Severe head trauma • Acute post-traumatic infarction

Red = Contraindication

Black = Relative Contraindication/Consideration (weigh risks/benefits)

Demaerschalk, B. M., Kleindorfer, D. O., Adeoye, O. M., Demchuk, A. M., Fugate, J. E., Grotta, J. C., . . . Smith, E. E. (2016). AHA/ASA scientific statement: Scientific rationale for the inclusion and exclusion criteria for intravenous alteplase in acute ischemic stroke. *Stroke*, 47, 581-641.

STAT Stroke Code Possible Orders:

IV-tPA In-House Order Set: #31859

IV-tPA ED Order Set: #62606

CT HEAD STROKE PROTOCOL TPA CANDIDATE WO

CT ANGIO HEAD NECK CAROTID STROKE PROTOCOL NIR CANDIDATE

MR HEAD RAPID CODE STROKE LTD BRAIN WO CONTRAST

Allina Health 

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