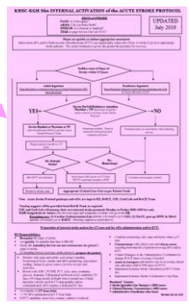
www.strokenetworkseo.ca

February 4, 2021

Contingency Plan: Best Practices Guide for Post Thrombolysis/EVT care in Acute Stroke Unit

Hyperacute Stroke Best Practices

- Recognize stroke symptoms & respond immediately-follow Acute Stroke Protocol (ASP)
- Patients with ischemic stroke may be eligible for **Endovascular Thrombectomy (EVT) up to 24 hrs after stroke symptom onset** and/or **thrombolysis within 4.5 hrs of symptom onset** as per highly selective clinical & neurovascular imaging criteria
  - **tPA or TNK: Thrombolysis**(clot busting) **IV medications**
  - **EVT: Procedure in IVR involving arterial catheterization** & removal of large clot(s) promoting reperfusion by recanalization of cerebral artery(s). Catheter with retrievable stent +/- aspiration device is inserted into an artery (femoral) up to intracranial occlusions → pulls out clot(s)



Click here for KGH ASPs

Exclusion Criteria for Care in Acute Stroke Unit (ASU) Post Thrombolysis/EVT

Patients post EVT/thrombolysis can transfer to ASU on Kidd 7 sooner **EXCEPT**:

- Severe stroke. NIHSS remains ≥ 10 post tPA/TNK or EVT
- EVT + tPA/TNK combination
- Persistent high blood pressure requiring ongoing IV medication or persistent hypotension requiring fluids + vasopressor/inotrope support
- Neurological deterioration
- Arrhythmia or myocardial infarction requiring continuous close cardiac monitoring
- Hyperglycemia requiring IV Insulin
- Internal Stroke Protocol (depends on admission dx and comorbidities)
- Other reasons for ongoing critical care in an ICU as per Attending physician

Post Thrombolysis/EVT: What Care is Different from Usual Stroke Unit Care?

↑ Vital signs & neuro assessment [Canadian Neurological Scale (CNS)] q 15 min x 2 hrs→ q 60 min x 22 hrs. Notify MD if CNS >1 or neurological change**.**
These patients are ↑**ed risk of hemorrhagic transformation; Monitor for signs of ↑ICP (**e.g., changes in LOC, neuro status, B/P, HR, respiratory pattern, new headache, nausea/vomiting).

Monitor BP maintaining targets: SBP ≤ 180 mmHg and/or DBP ≤ 105 mmHg or as ordered.

- Follow IV anti-hypertensives orders e.g., IV labetalol (or hydralazine if HR < 50 beats/min). Notify MD if > 3 doses of labetalol given within 2 hrs to consider labetalol infusion & possible trsf to D4ICU
- Report hypotension- SBP < 110 mmHg or DBP < 60 mmHg (may be bleeding)

Monitor for signs of systemic bleeding (e.g., GI, GU, oral, skin, retroperitoneal, groin site).
No arterial puncture, intramuscular injection or invasive procedure x 24 hrs post thrombolysis medication.

Monitor for facial, tongue, pharyngeal Angioedema post tPA/TNK at 30, 45, 60 & 75 min → q4 -6 h x 24 hrs. If signs of angioedema, contact MD immediately + administer diphenhydramine, famotidine & methylprednisolone, as ordered.

Cardiac Monitoring at least 24 hrs–high incidence of acute coronary syndrome & arrhythmia.
Report atrial fibrillation/flutter & other cardiac arrhythmias e.g., tachycardia, bradycardia, or heart blocks.
Screen & report subtle changes -prolonged QT interval, sinus pause, etc.

SpO_2 monitoring at least 24 hrs to identify hypoxia & early complications (e.g., aspiration pneumonia & angioedema). Keep SpO2 ≥ 92% or as ordered (e.g., ≥ 88% if CO_2 retainer).

Monitor fluid balance & ensure hydration with IV fluids. Keep patients **NPO until dysphagia screening** (STAND or SLP assessment) is done **between 8-24 hrs** + when patient is alert & can sit upright.

Bed rest x 24 hrs. If post EVT (only), bed rest x 6 hrs & maintain supine, with HOB not elevated more than 30º, with punctured limb at rest, & puncture site visible for 6 hrs post sheath removal.

Monitor EVT sheath site. Angio-Seal is placed at femoral site in IVR. Monitor site (bleeding or hematoma), distal pulses, & limb viability q15 min for 1hr →q30 min for 3 hrs →q shift until discharge.

HOLD Antiplatelet Therapy & VTE Prophylaxis until 24 hour follow-up CT head confirms absence of hemorrhage.

Continue other stroke care best practices e.g., temperature control < 37.5, **glucose monitoring**-avoid & treat hypoglycemia & hyperglycemia, **seizure monitoring, & assess Foley catheter removal at 24 hrs.**

* **If deterioration noted during assessment/monitoring, report immediately** to MD (e.g., sudden neuro deterioration or systemic hemorrhage, the following may be ordered –
  STAT CT head, blood work (CBC, PTT, PT, INR & fibrinogen) & cryoprecipitate.
* Reminder: **Contact & link regularly with Interprofessional Acute Stroke Team.**

STROKE RESOURCES

- **Ischemic Stroke Thrombolysis/EVT Order Set & Care Guidelines (located on KHSC Intranet→ Clinical Resources)**
- **Canadian Stroke Best Practices: https://www.strokebestpractices.ca/ & Stroke Network of Southeastern Ontario** best practice & education resources: **https://www.strokenetworkseo.ca/best-practice-and-education**