EMERGENCY DEPARTMENT HIGH RISK TIA / STROKE

EARLY RECOGNITION

SUDDEN Onset of

- Unilateral **weakness** affecting
  - face, arm and and/or leg
- Unilateral **decrease sensation**
  - Face, arm and/or leg
- **Speech dysfunction**
  - Word finding difficulty, garbled speech, mute, impaired comprehension
- Monocular visual loss or hemianopia

- Establish Last Seen Normal time and time symptoms were discovered
- Clinical assessment – History (including medications), BP, NIHSS, LVO

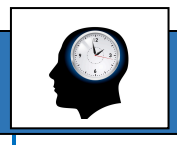
Definite or possible TIA/Stroke

NO → Alternate management plan

YES ↓

STAT CT scan of head + **CTA (if +'ve LVO screen)**

EARLY TREATMENT



TIA or Minor stroke

Resolving or mild symptoms (NIHSS < 5) and CT scan negative for hemorrhage

- Initiate appropriate antithrombotic- (Dual Antiplatelet or Anticoagulant if no contraindications)
- Refer to Stroke Prevention Clinic
- Consider admitting if patient has crescendo TIAs* or > 50% stenosis on carotid U/S on symptomatic side

***Crescendo TIAs** = Multiple TIAs with increase duration and severity

Last Seen Normal < 4.5 hrs

- NIHSS ≥ 5 (or marked speech deficit)
- No Exclusion Criteria for thrombolysis
- If patient on warfarin do INR and aPTT
- Confirm absence of intracerebral hemorrhage

CONSIDER THROMBOLYSIS and …

- Call THPs' Stroke Team via CritiCall

Last Seen Normal 4.5 - 12 hrs

- NIHSS ≥ 5 (or marked speech deficit)
- Confirm absence of intracerebral hemorrhage
- CTA if LVO Screening ≥ 4 *
- CT ASPECT score > 5
- *Georgetown off hours **only** need a **+'ve LVO Screening activate call**

CONSIDER EVT

- Call THPs' Stroke Team via CritiCall

NOTES

Initial Work-Up

- ECG
- CT / **CTA**
  - (**CTA if +'ve LVO Screen**)
- Blood work
  - aPTT/INR
  - CBC incl platelets
  - Electrolytes
  - Glucose
  - Renal function

Stroke Mimics

- Seizures
- Migraine
- Low or High Blood Sugar
- Bell's Palsy
- Sepsis and other Infections (UTI)

tPA Exclusion Criteria

- Patient on **NOAC** or **DOAC**
  - Rivaroxaban, Apixaban, Dabigatran, Edoxaban)
- Persistent Blood Pressure Elevation
  - **Systolic ≥ 185 mmHg or**
  - **Diastolic ≥ 110 mmHg**
- Blood work:
  - Blood Glucose < 2.7 mmol/L or > 22.2 mmol/L
  - INR > 1.7
  - aPTT > 40 seconds
  - Platelets < 100 x10^9/L
- Significant **head trauma** or **prior stroke** in the **previous 3 months**
- **Signs of blood** on CT scan
- History of **previous** intracranial **hemorrhage**
- **Intracranial neoplasm or AVM**
- **Major surgery** in previous 14 days (relative)
- Active bleeding

https://www.strokebestpractices.ca/

NIH Stroke Scale

Category	Score/Description	
1a. Level of Consciousness (Alert, drowsy, etc.)	0 = Alert 1 = Drowsy 2 = Stuporous 3 = Coma	
1b. LOC Questions (Month, age)	0 = Answers both correctly 1 = Answers one correctly 2 = Incorrect	
1c. LOC Commands (Open/close eyes, make fist/let go)	0 = Obeys both correctly 1 = Obeys one correctly 2 = Incorrect	
2. Best Gaze (Eyes open - patient follows examiner's finger or face)	0 = Normal 1 = Partial gaze palsy 2 = Forced deviation	
3. Visual Fields (Introduce visual stimulus/threat to pt's visual field quadrants)	0 = No visual loss 1 = Partial Hemianopia 2 = Complete Hemianopia 3 = Bilateral Hemianopia (Blind)	
4. Facial Paresis (Show teeth, raise eyebrows and squeeze eyes shut)	0 = Normal 1 = Minor 2 = Partial 3 = Complete	
5a. Motor Arm - Left 5b. Motor Arm - Right (Elevate arm to 90° if patient is sitting, 45° if supine)	0 = No drift 1 = Drift 2 = Can't resist gravity 3 = No effort against gravity 4 = No movement X = Untestable (Joint fusion or limb amp)	Left Right
6a. Motor Leg - Left 6b. Motor Leg - Right (Elevate leg 30° with patient supine)	0 = No drift 1 = Drift 2 = Can't resist gravity 3 = No effort against gravity 4 = No movement X = Untestable (Joint fusion or limb amp)	Left Right
7. Limb Ataxia (Finger-nose, heel down shin)	0 = No ataxia 1 = Present in one limb 2 = Present in two limbs	
8. Sensory (Pin prick to face, arm, trunk, and leg - compare side to side)	0 = Normal 1 = Partial loss 2 = Severe loss	
9. Best Language (Name item, describe a picture and read sentences)	0 = No aphasia 1 = Mild to moderate aphasia 2 = Severe aphasia 3 = Mute	
10. Dysarthria (Evaluate speech clarity by patient repeating listed words)	0 = Normal articulation 1 = Mild to moderate slurring of words 2 = Near to unintelligable or worse X = Intubated or other physical barrier	
11. Extinction and Inattention (Use information from prior testing to identify neglect or double simultaneous stimuli testing)	0 = No neglect 1 = Partial neglect 2 = Complete neglect	
	TOTAL SCORE	

FAST ED Scale

The FAST-ED Scale	
ITEM	FAST-ED Score
Facial palsy	
Normal or minor paralysis	0
Partial or complete paralysis	1
Arm weakness	
No drift	0
Drift or some effort against gravity	1
No effort against gravity or no movement	2
Speech changes	
Absent	0
Mild to Moderate	1
Severe, global aphasia or mute	2
Eye Deviation	
Absent	0
Partial	1
Forced deviation	2
Denial / Neglect	
Absent	0
Extinction to bilateral simultaneous in only one sensory modality	1
Does not recognize own hand or orients only to one side of the body	2

Score 0 or 1: < 15% = Negative
Score 2 or 3: < 30% = Negative
Score ≥ 4 = Positive

"The FASTED is available to download on your Apple or Android device"

WEST GTA Stroke Network