

**ACUTE STROKE BEST PRACTICES: WHAT ARE THE MAIN CHANGES?**

- **Canadian Stroke Best Practice Recommendations provide guidance for Stroke Care: Website <https://www.strokebestpractices.ca/> reformatted including integration & renaming of Hyperacute & Acute modules to Acute Stroke Management. Hemorrhagic Stroke module covered separately**

- ✓ Recommendations embedded in everyday practices & in helpful decision support resources such as our interprofessional Collaborative Care Plans, Clinical Pathways, Order Sets, and Protocols (e.g., STAND, Regional Acute Stroke Protocol and Internal Stroke Protocol)
- ✓ Education sessions held (e.g., Stroke School 101 by Dr. Al Jin with community hospital physicians)
- ✓ Plans underway to implement stroke bundled care which is intended to improve quality & patient experience & outcomes. Important core element is that patients receive Stroke Unit care

- **Patients with suspected ischemic stroke who present between 6-24 hours after stroke onset are potentially eligible for late window Endovascular Thrombectomy (EVT) ([DAWN](#) and [DEFUSE 3](#) trials). Patients who demonstrate any **FAST** signs should undergo a second screen using validated tool to look for possible EVT candidates. Patients potentially eligible for late window EVT treatment should undergo *immediate* brain imaging with NCCT with CTA and CT perfusion. Neurovascular imaging is critical to better determine patient selection.**

- ✓ EDs and Paramedics using large vessel screening tool (ACT-FAST) as triage tool for patients presenting between 6-24 hours
- ✓ Regional Emergency Transfer Guide (pink poster) updated
- ✓ New ED processes in place aiming for 30 min door-to-needle time
- ✓ KHSC-KGH using RAPID CT Perfusion software for patient selection- objectively quantifies ischemic core & penumbra. Coming soon at QHC-BGH

**Acute Stroke Protocol of Southeastern Ontario** 11040318

**Emergency Transfer Guide**  
Patients who present with features of an acute ischemic stroke may be eligible for thrombolytic therapy and/or endovascular therapy at a designated receiving hospital.

<p><b>Inclusion Criteria</b></p> <ul style="list-style-type: none"> <li>• Patient is suspected of having ischemic stroke</li> <li>• Care and condition of patient cannot be established and patient can reach KGH:</li> <li>• <b>When 0-24 hours of onset of ACT-FAST signs are present</b></li> <li>• <b>Time of onset in the patient was last seen well</b></li> <li>• <b>Time to Brain:</b> The sooner patient arrives at KGH the greater potential for better outcomes. KGH Stroke team requires 1 hour from KGH ED door to treatment.</li> <li>• Pregnancy is <b>NOT</b> a contraindication.</li> <li>• Age &lt; 18 years is <b>NOT</b> a contraindication.</li> </ul>	<p><b>Exclusion Criteria</b></p> <ul style="list-style-type: none"> <li>• Unknown onset of symptoms or patient last seen well &gt; 24 hours.</li> <li>• Complete resolution of neurological signs (TIA).</li> <li>• Serious co-morbidity with limited lifespan (e.g., advanced cancer, advanced dementia).</li> <li>• If uncertain about whether patient meets Acute Stroke Protocol criteria, contact Neurologist on Call for Stroke at KGH.</li> </ul>
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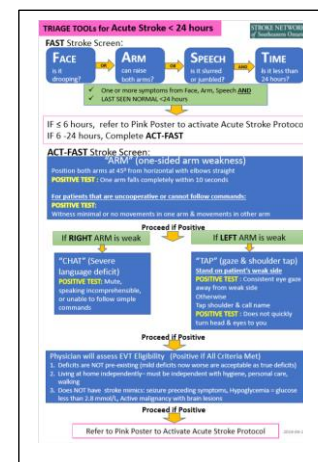
The following steps are recommended if the patient meets eligibility criteria and is stable for transfer:

- Step 1 Arrange for ambulance transfer by calling dispatch. Inform the dispatcher that patient fits "Acute Stroke Protocol"
- Step 2 Call KGH Emergency Department. Ask to speak to the Charge Nurse and inform them you have a patient that meets the "Acute Stroke Protocol"

Phone (513) 549-6666 extension 7003

- Step 3 Complete the following if time permits (never delay transfer to complete):
  - A. Patient's:
    - 1. IV (no glucose solutions unless required)
    - 1. saline lock obtained with an 18 gauge needle in the right antecubital fossa after decontamination
  - B. Optional (if time allows):
    - CBC, electrolytes, renal function, BUN, PTT, glucose, pregnancy test (HCO) if indicated
    - ECG
- Step 4 Fax blood work and all relevant patient information to KGH Emergency Department.

Fax (513) 548-2420



- **Patients being investigated for acute embolic ischemic stroke/TIA of undetermined source whose initial short-term ECG monitoring does not reveal atrial fibrillation but cardioembolic mechanism is suspected, prolonged ECG monitoring recommended for at least 2 weeks**
- **In very high-risk TIA or minor stroke of non-cardioembolic origin recommendation for combination of ASA (load with 160mg) +Plavix (load with 300 mg) for 21-30 days followed by monotherapy (CHANCE & POINT trials)**

- ✓ Regional Stroke Prevention Clinics ordering cardiac monitoring devices for prolonged monitoring
- ✓ Hospital order sets updated

- **Patent Foramen Ovale (PFO) device closure plus long-term antiplatelet therapy is recommended for carefully selected patients with recent cryptogenic ischemic stroke or TIA attributed to PFO**

- ✓ Stroke Prevention Clinics referring patients for consideration of PFO closure device
- ✓ KHSC-KGH site performing PFO closure for highly selected patients

- **Mobilization:** Frequent, brief, out-of-bed activity beginning within 24 hours of stroke onset is recommended if there are no contraindications. Use your clinical judgment.

## ACUTE STROKE BEST PRACTICES REMINDER CHECKLIST

### Stroke Unit Care Saves Lives

- Neuro Assessment: Canadian Neurological Scale (CNS)** is used to compare baseline stroke severity, quantify neurological recovery and identify early deterioration.
- Administer Tylenol for **temperature >37.5**.
- Monitor **heart rate and rhythm** - arrhythmia is common.
- Treat **blood pressure** if above 220/120 for patients NOT receiving tPA, not having hemorrhagic stroke and not accompanied by MI, acute renal failure or aortic dissection.
- Glucometer checks q4h for 48h if admission **glucose** abnormal, then reassess. Results > 10 or < 4 reported and treated.
- Swallowing Function:** Keep patients NPO until STAND or SLP consult is done. **Oral Care** at least twice a day & increase frequency for patients who are NPO.
- Assess for Pain.** Shoulder pain is common.
- Mobilize** unless contraindicated.
- VTE prophylaxis** administered for patients with limited mobility (e.g., SCD or LMWH, fluids, mobilization).
- Hydrate**- ensure IV in place if patient is NPO.
- Bowel management.** Assess for constipation. Provide laxatives prn.
- Avoid indwelling urinary foley catheter.** If clinically needed, reassess within 24h for removal.
- Contact Your Acute Interprofessional Stroke Team.**
- Provide patient & family education and support** including discharge planning (e.g., patients prescribed an oral anticoagulant should be educated regarding importance of daily adherence & dangers of missed doses).

- ✓ Stroke Survivor & Caregiver Support Groups have expanded across region (including Aphasia Conversation Groups)
- ✓ Community Stroke Rehabilitation Program Updated
- ✓ Hospitals following health literacy principles & providing Patient Oriented Discharge Plans
- ✓ Discharge order set developed
- ✓ Standard Stroke Information Package compiled. Packages located in the Stroke Unit. When the time is right, patients and families are provided with the Stroke Information Package. Packages contain these core materials:
  - Your Stroke Journey
  - Bookmark directing patients to [SouthEasthealthline.ca](http://SouthEasthealthline.ca) Website containing many community stroke resources and services
  - Stroke Survivor Group brochure
  - Community Stroke Exercise Program flyer (if available)
  - Caregiver resourceInformation can always be added to the package depending on patient and family needs.



## UPCOMING STROKE EVENTS

- Regional Integrated Transitions Pathway Event: September 18, 2019; More details to follow
- Regional Stroke Symposium: November 27, 2019 at the Kingston Holiday Inn

For more info about any upcoming stroke educational opportunities, visit: <https://www.strokenetworkseo.ca/best-practice-and-education/education-opportunities>

For more info about stroke best practices, visit: <https://www.strokenetworkseo.ca/>