



Hot Stroke Protocol ED and In-Patient (SPH, MSJ, HFH-Rehab)

Site Applicability

St. Paul's Hospital - Emergency Department and inpatient units, Outpatients in SPH Cardiac Cath Lab, SPH Hemodialysis ONLY

Mount Saint Joseph Hospital - Emergency Department and in-patient units

Holy Family Hospital – Rehabilitation inpatient units only

Practice Level

Specialized: Physicians and RNs require certification for conducting National Institutes of Health Stroke Scale (NIHSS) assessments.

Basic: MD, NP, RN, RPN or LPN – as per remainder of the protocol

Need to Know

Clinical Indication - For ED and in-patients with new onset of potential stroke / Transient Ischemic Attack (TIA) symptoms

- Hospital inpatients who present with a sudden onset of new stroke symptoms should be rapidly evaluated by a specialist team in a timely fashion and have appropriate access to acute stroke treatment.
- All patients including those with suspected transient ischemic attack or non-disabling ischemic stroke should undergo an initial assessment that includes: brain imaging, non-invasive vascular imaging, such as carotid dopplers, CT angiography or magnetic resonance angiography, and an electrocardiogram, within the time frames recommended in the Canadian Recommendations for Stroke care to identify the nature and mechanism of stroke..
- Early imaging is particularly important for determining a patient management plan, which may include the administration of thrombolysis or Endovascular Thrombectomy (EVT).
- Eligible patients with ischemic stroke should receive thrombolytic drug within 4.5 hours of onset of stroke symptoms and can be treated with endovascular thrombectomy within 6 hours of symptom onset .
- Canadian Best Practice Recommendations for acute in- patient care advocate for protocols to be in place for acute in-patient stroke management.
- **The Stroke Quality Standard (BCPSQC, 2022) recommends that a patient with a stroke be offered stroke unit care, which is a specialized, geographically defined hospital unit dedicated to the management of stroke patients and staffed by an experienced interdisciplinary stroke team**
 - **At PHC: 7CD at SPH is the designated Stroke Unit Care**

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- Hot Stroke protocol is part of the hyper acute and acute care phase of the continuum of stroke care.
- Neurologist/ MRP completes the appropriate stroke PowerPlan and the National Institutes of Health Stroke Scale (NIHSS).

Signs and Symptoms of Potential Stroke/TIA

Sudden onset of any one of following symptoms

- Unilateral face, arm or leg weakness
- Trouble speaking
- Vision problems
- Unusually severe headache
- Sudden loss of coordination

FAST criteria

Based on the Heart and Stroke Foundation's national campaign to raise awareness of the signs of stroke.

FAST Criteria:

Face=facial drooping
Arm=unilateral arm weakness
Speech= speech impairment
Time=time of symptom onset

Protocol

Community patients with symptoms of stroke who arrive via ambulance or present themselves to ED and inpatients with signs and symptoms of High risk TIA/Stroke will activate ED/Inpatient Hot Stroke protocol

Activating Hot Stroke in Cerner:

In ED the triage RN will assess the patient for symptoms of stroke using the FAST VAN criteria, page overhead HOTSTROKE Level 2. See [Appendix A-2](#) for the remainder of the protocol

For inpatient units

Nursing: When patients exhibit potential symptoms of stroke, assess patient using the FAST criteria. Document the FAST assessment as described below. (Also see [Appendix A-1](#))

In IView (Interactive View and I&O) In the Adult Systems Assessment under the Neurological section select the icon to create custom view (refer to [CST Cerner Help](#)).



Choose "Stroke" from the options

The screenshot shows the 'Interactive View and I&O' software interface. On the left, a tree view lists various clinical assessments under sections like NEUROLOGICAL, CARDIOVASCULAR, and PSYCHOSOCIAL. A red arrow points from the 'Stroke' item in the 'NEUROLOGICAL' section to a 'Customize View...' button in a floating window. This window has three tabs: 'Customize' (selected), 'Preferences', and 'Dynamic Groups'. The 'Dynamic Groups' tab is circled with number 2. The 'Customize' tab shows a list of items with checkboxes for 'On View' and 'Default Open'. The 'Stroke' item has both checkboxes checked. Below this list is a 'Search for Item:' field and an 'In Section:' dropdown. At the bottom are buttons for 'Collapse All', 'Expand All', 'OK', and 'Cancel'. A red circle labeled '1' highlights the 'Find Item' dropdown and two checkboxes for 'Critical' and 'High'.



Perform and Document on FAST or FASTVAN stroke screening. Follow the remainder of appropriate site algorithm.

SPH [Appendix A -1](#) and MSJ Appendix [B1](#) (Day), [B2](#) (Night) and [B3](#) (ED)

HFH – [Appendix C](#)

The screenshot shows the Cerner EMR interface. The left sidebar has a tree view of clinical sections. The main area shows the 'Interactive View and I&O' module. On the left, under 'Adult Systems Assessment', the 'Stroke' section is expanded. A red arrow points from this section to the 'Stroke' row in the results table on the right. The results table has columns for Result, Comments, Flag, Date, and Performed By. The 'Stroke' row contains details for FAST and VAN screening.

Provider Orders

Providers in ED and on the inpatient units can enter the Hot Stroke activation orders in Cerner searching “Hot stroke” in the orders section

The screenshot shows the Cerner search interface. The search bar at the top contains 'Hot Stroke'. Below the search bar, a dropdown menu is open, showing 'ED / Inpatient Hot Stroke Activation - Initial Care CST-49304'. At the bottom of the screen, there is a navigation bar with the text 'MED IP, ONE - 760103113' and a 'Done' button.

For inpatient units, when providers select these orders they need to de-select all the pre checked boxes (they are pre checked for ED patients and most investigations are not required for inpatients).

Then select the appropriate CT order (with/without angiogram) and automatic notification (autopage)

The screenshot shows the Cerner order entry interface for 'ED / Inpatient Hot Stroke Activation - Initial Care CST-49304'. It displays a list of diagnostic tests and consults/referrals. Under 'Diagnostic Tests', two items are listed: 'CT Head w/o Contrast' and 'CT Angio Head and Neck w/ + w/o Con'. Under 'Consults/Referrals', one item is listed: 'Automatic Notification of Staff for Stroke'. Each item has a checkbox next to it. The status bar at the bottom indicates 'placing 3 order(s)'.

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Expected Outcomes:

- Patients with a high risk TIA/stroke receive appropriate and timely assessment and treatment
- Patients who are eligible for thrombolysis receive treatment within 4.5 hours and thrombectomy within 6 hours of the onset of symptoms

Documentation

1. ED physician/MRP/ Neurologist to complete appropriate stroke PowerPlans
Nurses to record assessments, interventions and patient's response to care

Patient and Family Education

- Explain the reason for transferring to Emergency Department, or radiology and where appropriate Critical Care within PHC or VGH.
- Explain that Physicians and Neurologist will discuss the need for further investigations and treatment
- Review immediate activity level and feeding restrictions if any, with patient and family
- Instruct patient/family to report any new symptoms of stroke/TIA.

Related Documents

1. [Appendix A 1](#) - Hot Stroke Algorithm for Inpatients SPH
2. [Appendix A 2](#) - Hot Stroke Algorithm for ED
3. [Appendix B 1](#) - Hot Stroke Algorithm for Inpatients MSJ - DAYS
4. [Appendix B 2](#) - Hot Stroke Algorithm for Inpatients MSJ - NIGHTS
5. [Appendix B 3](#) - Hot Stroke Algorithm for Inpatients MSJ - ED
6. [Appendix C](#) – Hot Stroke Algorithm for Inpatients – HFH Rehabilitation
7. Powerplans for Stroke (Cerner)

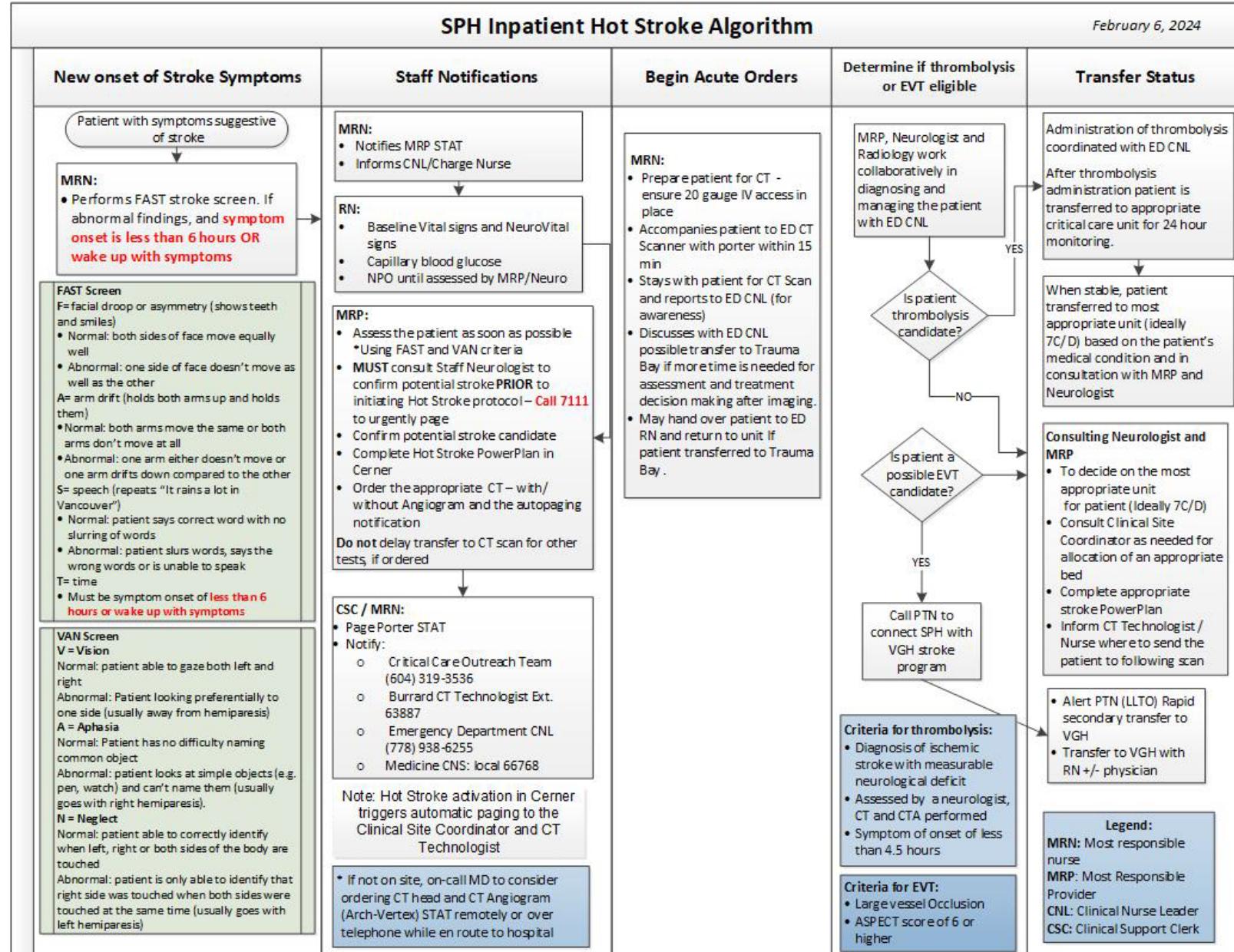
References

1. Boulanger JM (First Author), Lindsay MP (Corresponding Author), Stotts G, Gubitz, G, Smith EE, Foley N, et al. *on Behalf of the Acute Stroke Management Best Practice Writing Group, and the Canadian Stroke Best Practices and Quality Advisory Committees; in collaboration with the Canadian Stroke Consortium and the Canadian Association of Emergency Physicians.* In Lindsay MP, Gubitz G, Dowlatshahi D, Harrison E, and Smith EE (Editors) *Canadian Stroke Best Practice Recommendations, 2018; Ottawa, Ontario Canada: Heart and Stroke Foundation*
2. Inpatient "Hot Stroke" Guideline. Interprofessional Practice & Clinical Standards. Vancouver Island Health Authority
3. Inpatient Stroke Guidelines. Calgary Stroke Program, Mar 22, 2013.
4. Code Stroke. Department of Emergency Medicine. St. Paul's Hospital, Providence Health Care, Vancouver.

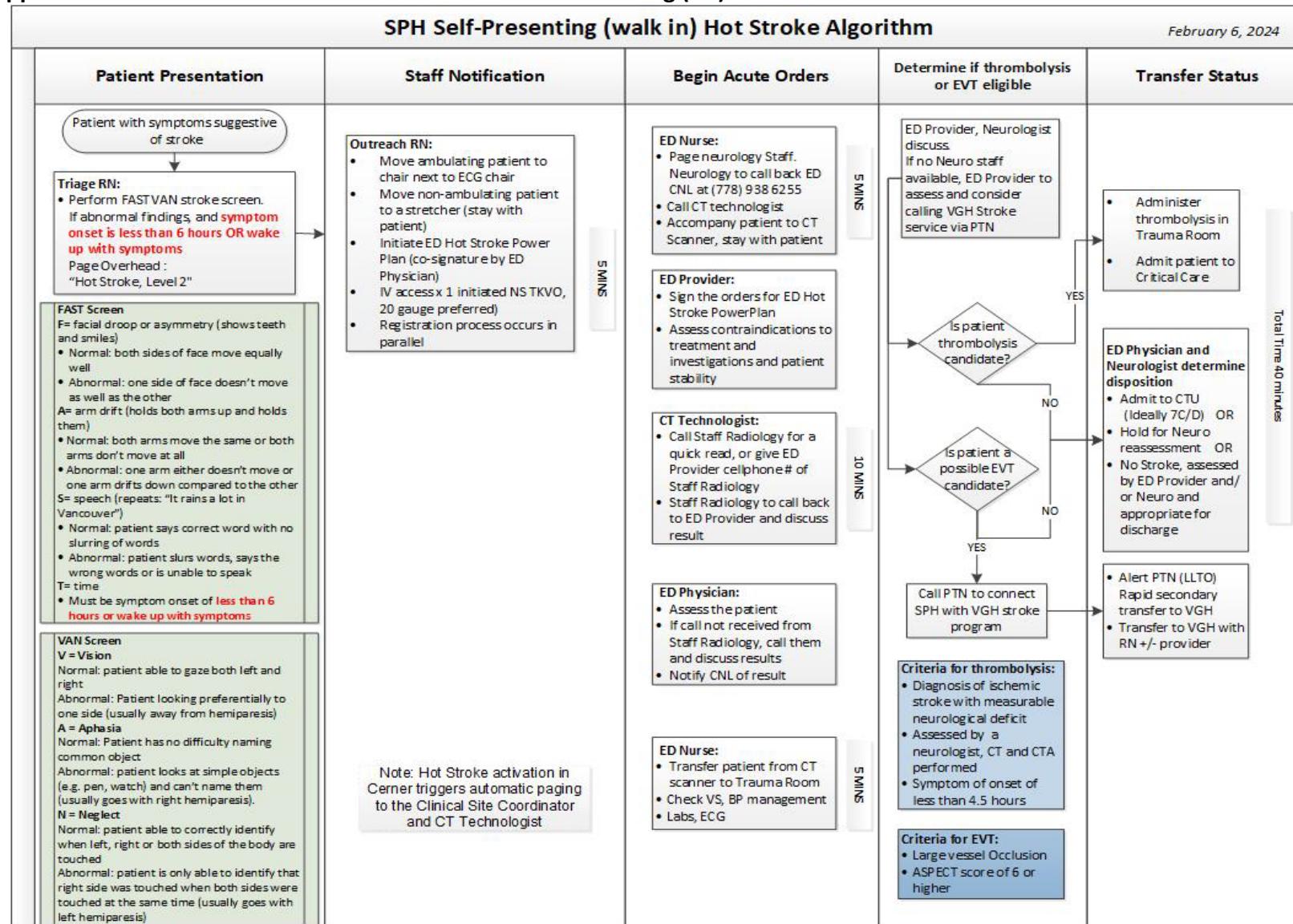
Appendix A 1**Hot Stroke Protocol In Patient SPH****SPH INPATIENT HOT STROKE**

1. **F.A.S.T.** **Face:** facial drooping
Arms: unilateral arm weakness
Speech: speech impairment (slurred or jumbled)
Time: time of symptom onset
2. Nurse to call MRP **STAT**
3. Nurse to inform CNL/Charge Nurse
4. MRP **MUST** discuss with Staff Neurologist to confirm potential stroke **PRIOR** to initiating Hot Stroke protocol – **Call 7111** to urgently page Staff Neurologist
5. MRP/NP to complete HOT Stroke PowerPlan in Cerner (ONLY MRP/NP can call **HOT STROKE**)
Orders “add” -> *ER/Inpatient Hot Stroke* -> Unselect everything *EXCEPT*: CT, CTA, CBG and auto-paging orders
6. Unit to page Porter **STAT**
7. Unit to notify **STAT**:
 - Burrard CT Scan Technologist at 63887
 - Critical Care Outreach Team at 604 319 3536
 - ED CNL at 778 938 6255
 - Medicine CNS at local 66768
8. Nurse to accompany patient (with Porter) to Burrard CT scanner in ED
9. Nurse to stay with patient at CT until physician has read results
10. Nurse to accompany patient back to unit (unless patient transferring to ED, ICU or VGH for further treatment)

See next page for more details



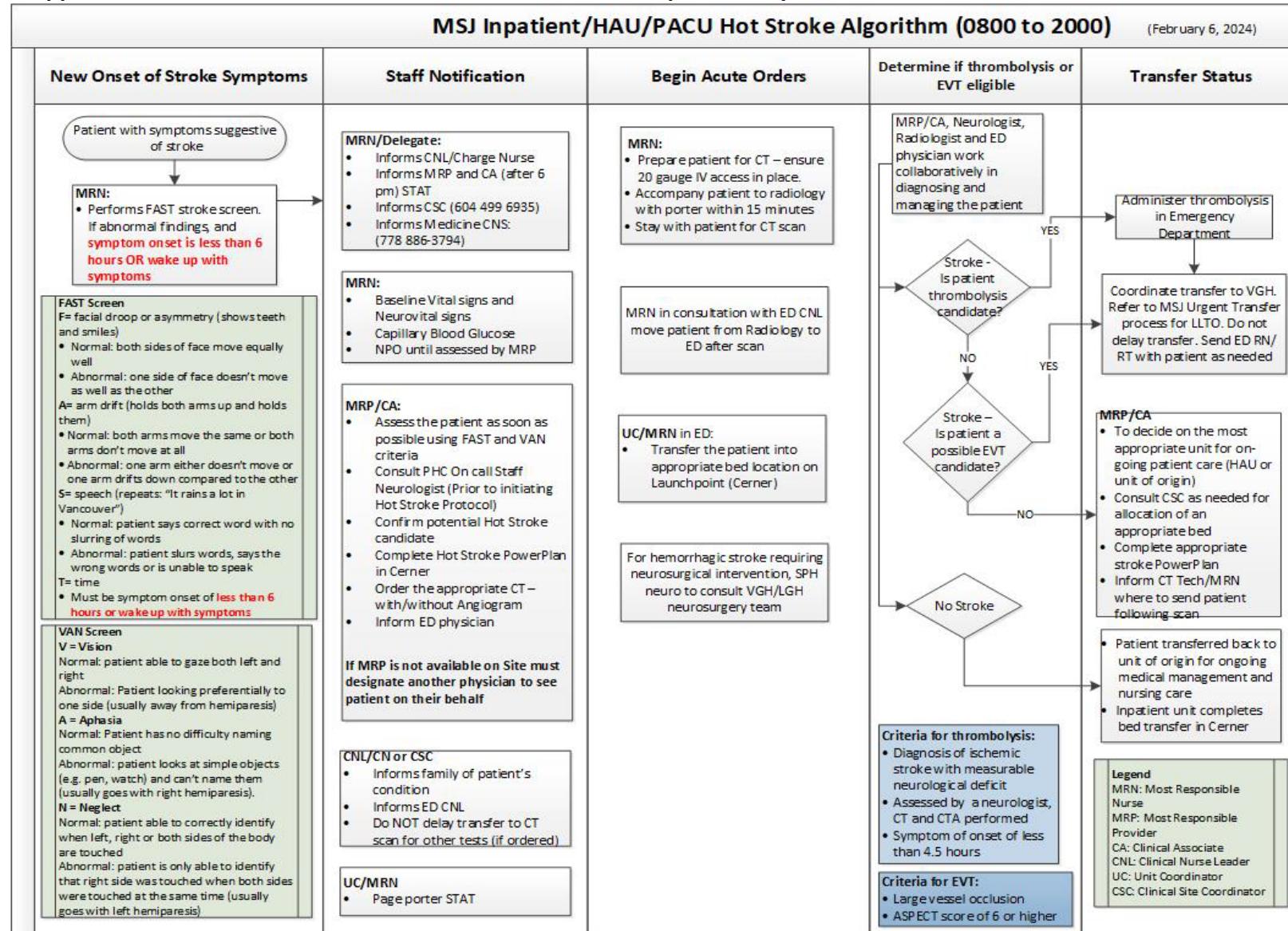
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Appendix A 2**Hot Stroke Protocol Self-Presenting (ED) SPH**

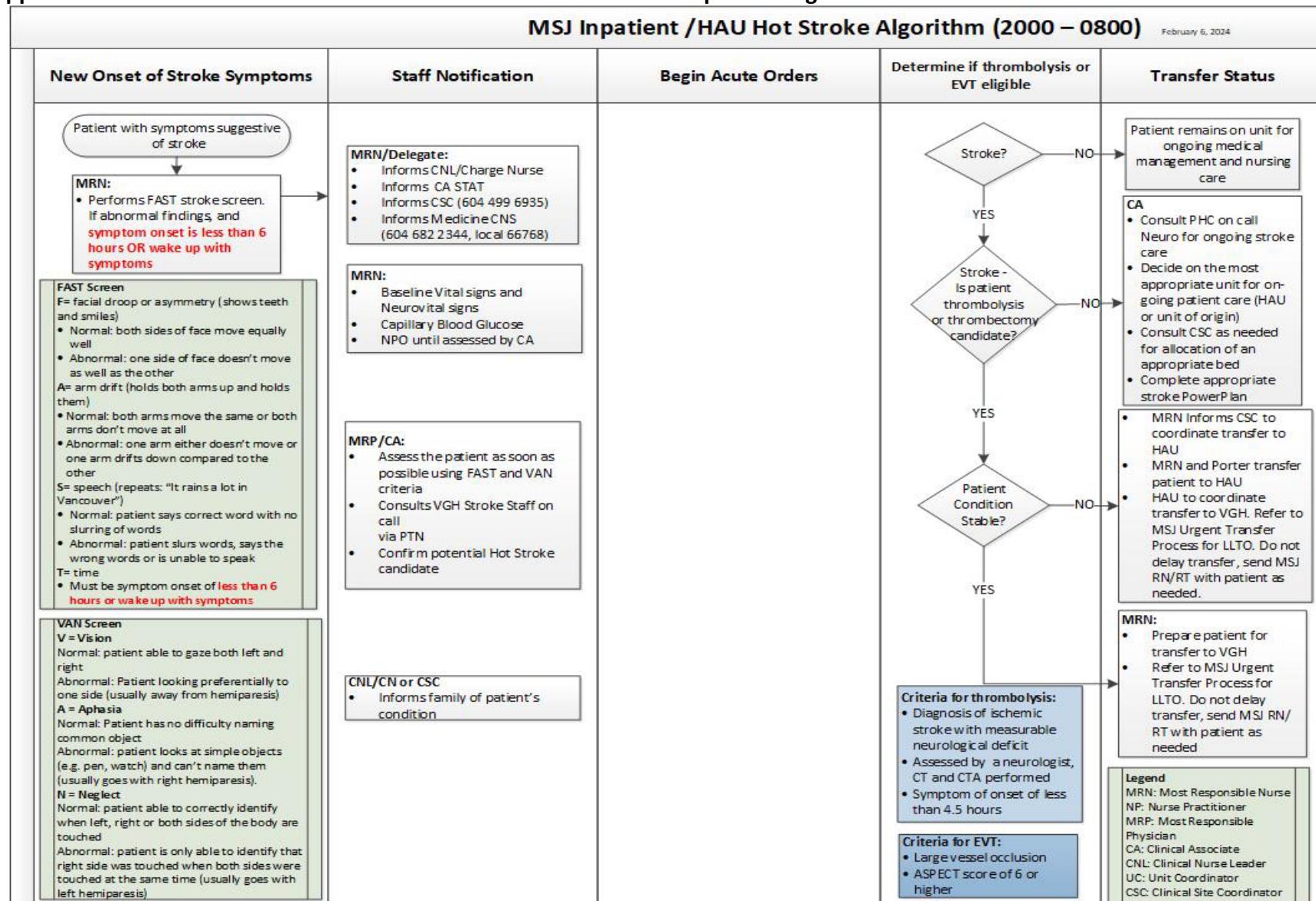
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Appendix B - 1**HOT STROKE PROTOCOL MSJ – Inpatient Days 0800 - 2000****MSJ Inpatient/HAU/PACU Hot Stroke Algorithm (0800 to 2000)**

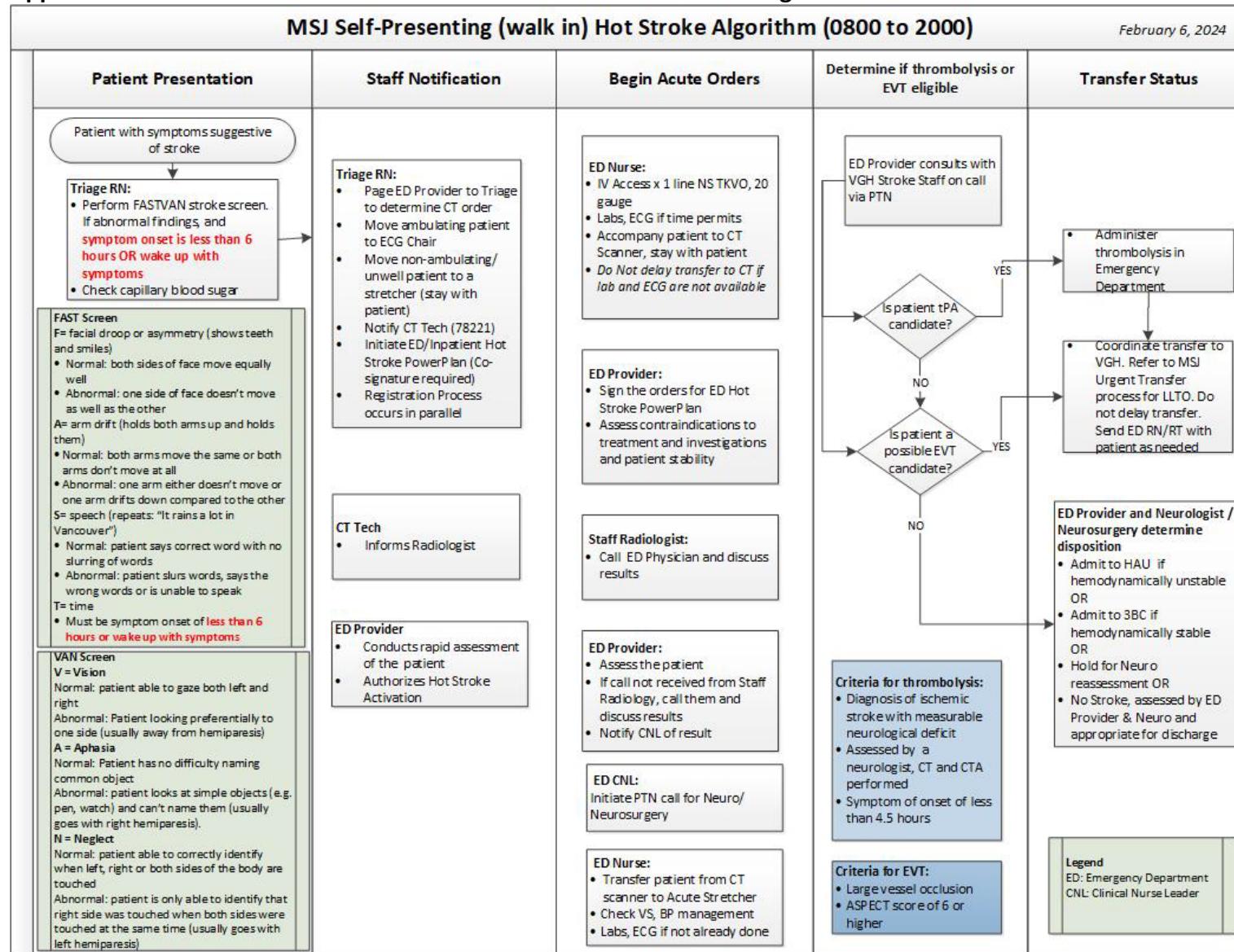
(February 6, 2024)



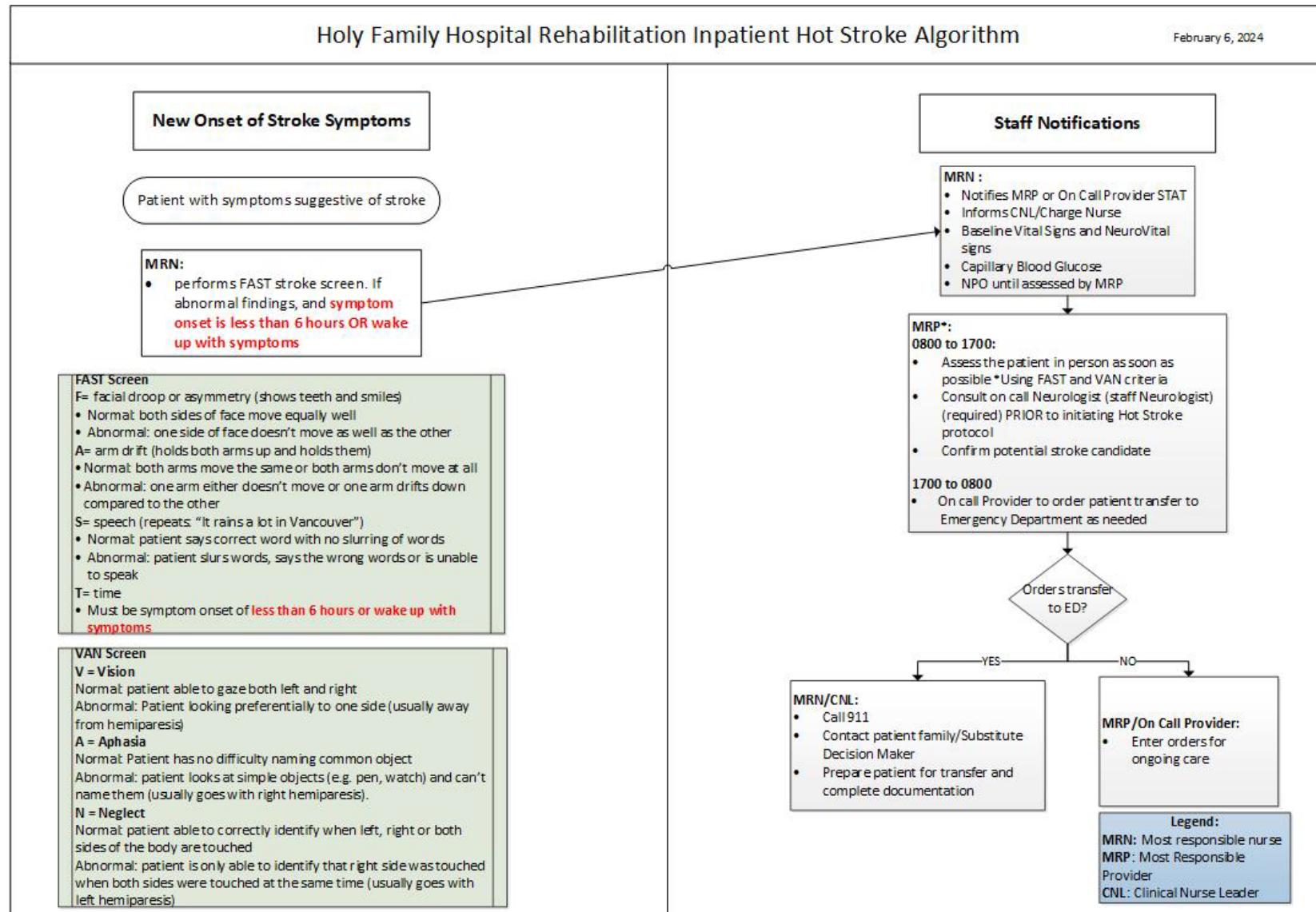
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Appendix B – 2**HOT STROKE PROTOCOL MSJ – Inpatient Nights 2000 – 0800**

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Appendix B – 3**MSJ Hot Stroke Self Presenting to ED**

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Appendix C**Hot Stroke – Holy Family Hospital Rehabilitation**

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Persons/Groups Consulted:

Nurse Educator, HAU, MSJ
Clinical Nurse Specialist Surgery
Clinical Nurse Specialist, Heart Centre
Clinical Nurse Specialist, Critical Care, PHC
Clinical Site Coordinator Group, MSJ
Department Head, Surgery
Director Medicine PHC
Division Head, Anesthesia
Division Head, Internal Medicine
Division Head, Neurology, Clinical Assistant Professor
Holy Family Hospital Rehabilitation Nursing team
Interventional Cardiologist
Medicine Leadership Team, SPH
Patient Care Manager ED
Patient Care Manager ICU
Patient Care Manager Cardiac Program PHC
Patient Safety and Quality Committee MSJ
Physician Advisory Group MSJ
Physician Director ICU SPH
Physician Director, Medicine Program PHC
Physician, Emergency Department
Psychiatry Leadership Team HFH
Radiology Team, SPH
RN's Cardiac Short Stay, Cardiac Cath Labs
TIA Clinic Patient Educator

Revised By:

Clinical Nurse Specialist, Medicine (updated thrombolytic and minor edits)

Initial Effective Date:	12-OCT-2018
Posted Date:	06-FEB-2024
Last Revised:	06-FEB-2024
Last Reviewed:	06-FEB-2024
Approved By:	PHC Professional Practice Standards Committee
Owners:	PHC Medicine