Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Protected Acute Stroke Protocol for Patients with Suspected or Confirmed COVID-19

April 2, 2020

Suspected/Query COVID-19 Includes Acute Stroke Protocol Patients Who Were NOT Able to be Screened for COVID-19 by Paramedics or Hospital Providers (e.g., due to aphasia or cognitive issues).

- **Number of Protected Acute Stroke Protocol (ASP) Team = 1 physician (Attending Neurologist or Resident) and 1 ED RN**

A. Transfer to a Stroke Centre

1. Paramedics initiate pre-notification to ED ASAP & inform KGH ED of COVID-19 status. If hospital transfer, hospital to call KGH ED at 7003 and inform them of COVID-19.

B. ED

1. ED contacts Switchboard re Protected Acute Stroke Protocol (suspected or confirmed COVID-19)
2. Switchboard contacts ASP list with added communication of “Protected” Acute Stroke Protocol.
3. ED Charge RN assigns 1 RN. Neurologist to decide if Resident will perform assessment.
4. Upon arrival, patient is registered including COVID-19 flag; notify CT of patient arrival in ED, include if COVID-19 precautions and/or unstable.
5. Patient brought to area in Section A behind the RED tape by paramedics for brief assessment.
6. Protected ASP team dons PPE as per IPAC policy before assessing or placing IVs/+/- bloodwork: Mask, Face Shield, Gown & Gloves. If PPE not located in nearby cart, ask Charge RN or ED RN.
    a. If patient requires intubation or is unstable, patient is placed in Isolated Room in Section A. If intubation is needed, Critical Care/ED dons N95, bouffant, face shield with drape, gown, & gloves; Neurology will not be involved with intubation of cases.
    b. If patient is intubated, Kidd 2 ICU intensivist and Charge RN are notified. If after hours and patient is unstable, notify ACO.
7. Rapid handover from paramedics to Protected ASP team (if Walk-In report given by triage RN).
8. Protected ASP physician conducts rapid assessment using NIHSS or Simplified Stroke Exam as described in Appendix 1. Protected ASP ED nurse establishes 2 IVs unless previously started +/- bloodwork.
9. Place yellow procedure mask & clean sheet on patient before transport to CT. Mask kept on.
10. Protected ASP ED nurse to remove gown & gloves and obtain tPA from Omnicell and equipment including stretcher, pump, monitor, & ASP package and will go ahead opening doors. Protected ASP physician + paramedic to keep PPE on & follow with patient. If there is a “clean runner” present (e.g., Resident), they can open doors.
11. Important to have someone call CT before leaving to ensure they are ready.

C. Imaging

1. CT console room should be kept clear as possible of extra staff.
2. 1 CT tech dons PPE. Protected ASP physician, paramedic & CT tech place patient on CT table. Paramedic/physician change monitor leads. CT Tech hooks up injector for contrast.
3. CT Tech, physician & paramedic remove gown & gloves in CT ante-room laundry basket (back into closed door to open door). Paramedic gives report to “clean” nurse.
4. Non -Contrast CT and +/- CT Perfusion using RAPID.

5. If tPA to be given, Protected ASP ED nurse or ASP physician prepares bolus. Protected ASP physician or Resident dons gown and gloves & administers bolus. Nurse prepares infusion then dons gown & gloves and starts infusion. Patient is transferred to stretcher by Protected ASP physician or resident & nurse and moved into hallway. Physician removes gown & gloves and reviews rest of CT images either in CT console room or via cell phone.
   If tPA is not given, CT Tech & Protected ASP ED nurse don gown & gloves to transfer patient to stretcher while physician remains "clean."

D. Transfer from Imaging

- Notify receiving location prior to transfer.
- Patient to be transferred by Protected ASP ED nurse who keeps PPE on. Protected ASP physician or Resident remains "clean" and opens doors.
  - **If IV tPA only:** patient will be transferred back to ED Section A to await D4ICU bed unless bed is ready. If intubated, aim to transfer patient to K2ICU ASAP with RT, Critical Care RN & Porter.
  - **If NO EVT or tPA:** patient will be transferred back to ED to Section A or C (if stable) to await bed assignment by the Bed Allocation Team.
  - **If EVT,** patient transfers to IVR when IVR ready (at times may need to go to ED Section A if IVR not ready-after hours).

E. EVT Procedure in IVR

1. IVR Team assisting with IVR procedure dons PPE. Protected ASP ED nurse assists with transferring patient to IVR procedure bed & provides report. ASP ED nurse can then leave removing gown & gloves. Protected ASP physician or resident dons lead apron, gown and gloves to assist if necessary.
2. Patient is prepped-needs clean gown. Insert Foley Catheter if needed.
3. EVT procedure completed (If patient becomes unstable apply 100% oxygen with non-rebreather mask, activate code 99 anesthesia. Positive pressure ventilation should be avoided unless absolutely required (then do hand hygiene, don airborne PPE on before bagging patient) (also applies in DI)).
4. IVR team transfers patient to D4ICU or K2ICU stretcher/bed.
5. Critical care RN & ASP physician or porter transferring patient to Critical Care don PPE. Designate 1 clean staff to carry patient chart, open doors, & to touch elevator button-Kidd/Davies Elevator 3 or 4.

F. Post EVT Management

1. Patient requires care in D4ICU or K2ICU (ventilated cases) as soon as possible post EVT +/-tPA.
2. After intensive monitoring is no longer needed, patients are transferred to the COVID-19 Isolation Unit if COVID-19 positive as per the Bed Allocation Team.

Appendix 1

Simplified Stroke Examination

1. Impaired level of consciousness? Yes or No.
2. Gaze towards one side? Yes or No.
3. Sees hand waving on both the left and right side? Yes or No.
4. Able to raise arm to 45 degrees for 10 seconds without drift? Yes or No.
5. Able to straight leg raise with heel 6 to 12 inches off bed? Yes or No.
6. Speech impaired? Yes or No.
7. Feels tap on left shoulder? Yes or No.