

MONTREAL CHILDREN'S HOSPITAL CODE STROKE ALGORITHM

ALGORITHM APPLIES TO:
Patients > 1 month to < 18 years old AND cardiac patients (0-18 years old)
Excludes: NICU patients

A CODE STROKE PRE-ALERT and a CODE STROKE can **only be activated by:**

- Attending Physician (Wards, Psychiatry, Neurology, PICU, PACU, ED, Hematology/Oncology)
- Senior trainee after discussion with Attending Physician

Activate **STROKE PRE-ALERT** if < 24 hours of new, persistent:

- Visual loss or disturbance
- Aphasia (difficulty speaking)
- Unilateral weakness (face, leg, arm)
- New onset seizure with focal finding with **persistent focal deficit** (on exam or on history)

Activate **CODE STROKE** based on **clinical judgement** including, but not limited to, the presence of risk factors such as:

- Hematologic disorders (i.e. sickle cell or clotting disorder)
- Cardiac lesions
- Vasculitis/vasculopathy
- Infection (e.g. CNS, systemic)
- Metabolic disease
- Brain tumour
- Trauma
- Drugs and medications (i.e. cocaine, oral contraceptive pill)

CODE STROKE PRE-ALERT

Physician calls Locating (55555) to activate **STROKE PRE-ALERT**

Provides:

- Patient MRN
- Patient Age
- Patient Location
- physician Name
- Specialty (i.e. Pediatrics, Emergency)
- Direct phone number where they can be reached

Locating pages Attending Neurologist on call

Attending Neurologist evaluates the patient or via proxy

Physician and Attending Neurologist discuss:

- Neurologist to activate code stroke?
- Imaging?
- Modality?
- Need for sedation?

Neurologist
Activates **CODE
STROKE?**

Yes

Neurologist calls Locating (55555) to activate **CODE STROKE**

• Provides:

- Patient MRN
- Patient Age
- Patient Location
- Name of Neurologist
- Specialty (i.e. Neurology)
- Direct phone number where they can be reached

RESPONSE

- Locating sends collected information via **page** to:
 - **Neuroradiologist** - Calls Attending Neurologist (who paged)
 - **PICU Fellow** - Consult within 10min
 - **Nursing Resource Manager** - Coordinate hospital resources
 - **Neurology Resident** - Communicate with Neurology Attending and evaluate patient
 - **Operating Room Charge Nurse** - For situational awareness
 - **Conall Francoeur** - For program tracking

No

Subsequent management and disposition per Attending
Neurologist and MRP

No

Is imaging
clinically indicated?

Yes

PATIENT IMAGING

- **Attending Neurologist**
 - Communicates plan to Most Responsible Physician (MRP)
 - Relays imaging results to MRP
- **Attending Neuroradiologist**
 - Arranges stat imaging
 - provides Attending Neurologist **REAL TIME** reading
- **Technologist** informs Attending Neuroradiologist when image acquisition begins

STROKE CONFIRMED?

MCH Attending Neurologist

- Informs MRP and PICU about confirmed stroke and recommended management
- Contacts with MNI Stroke Neurologist on call via Locating (53333) to discuss management/monitoring plans
 - If diagnostic angiography or mechanical thrombectomy potentially indicated, MCH attending neurologist discusses with MNI neurointerventional radiology team
- Contacts MRP to confirm care plan established with MNI Stroke Neurologist

- Implement neuroprotective measures (in development)
- Consider other potential expert consultations based on need and contact via Locating (53333):
 - Neurosurgery
 - Hematology

CODE STROKE

(without stroke pre-alert)

IF SEDATION REQUIRED* for imaging (MRI) based on patient location:

- **ED:** Sedated by ED vs anesthesia depending on type of imaging / sedation required
- **Ward:** Sedated by PICU or anesthesia depending on type of imaging / sedation required
- **PICU:** Via PICU

If anesthesia -> MRP books patient as as category 1 via OR (23434) and speak with Anesthetist in Charge

**Sedation needs will be determined by a case by case discussion of key factors including patient age, collaboration potential, imaging modality, time of day, etc.*

Physician calls Locating (55555) to activate **CODE STROKE**

• Provides:

- Patient MRN
- Patient Age
- Patient Location
- Physician Name
- Specialty (i.e. Pediatric, Emergency, Neurology)
- Direct phone number where they can be reached

RESPONSE

- Locating sends collected information via **page** to:
 - **Attending Neurologist** - Contact activating physician
 - **PICU Fellow** - Consult within 10min
 - **Neuroradiologist** - Await call from Attending Neurologist
 - **Nursing Resource Manager** - Coordinate hospital resources
 - **Neurology Resident** - Communicate with Neurology Attending and evaluate patient
 - **Operating Room Charge Nurse** - For situational awareness
 - **Conall Francoeur** - For program tracking

Attending Neurologist calls locating (53333) to connect with
Neuroradiologist to decide imaging modality