CG-01 Stroke Protocol:
Emergency Department Phase

NOTIFICATION
- Pre-hospital to ED: encourage pre-hospital notification.
- ED attending or EM-3 will decide whether to activate stroke team based on this information.

REGISTRATION
- Stroke patients will be registered as “EU criticals” unless their personal information is immediately available.
- Nursing (triage or primary) notifies EM-3 or ED physician: EM-3 and/or attending to bedside ASAP. The door to evaluation time will be less than 15 minutes.

EVALUATION
- Record time of patient’s Arrival to ED
- Record time of ED Nurse Evaluation
  - IV access, O2, telemetry, draw labs, STAT fingerstick, guaiac stool, obtain ECG and vital signs.
- ED attending and EM-3:
  - Rapid history and physical examination including neurological exam
  - Order STAT labs (CBC, coags, Chem 7+, pregnancy test, if applicable), non-contrast CT (or MRI) and Chest X-Ray.
* Do not delay sending the patient to CT scan in order to complete the ECG, stool guaiac or chest x-ray unless specifically requested by physician. Ideally, labs should be drawn prior to going to CT.

Active Code Stroke via Dashboard

THERAPY
- Airway intervention if necessary (in marginal case, d/w stroke team)
- Hypotension – treat if thought to be a factor
- Treat hypoglycemia/hyperglycemia
- Supplemental O2 if hypoxemic
- Treat fever (and initiate search for source, but do not delay thrombolysis for this)
- Address Hypertension needs (See Below)

BP MANAGEMENT
- Most patients with ischemic stroke do not require any treatment for hypertension
- Use caution in the treatment for hypertension until CT/MRI is performed, except in special situations such as high suspicion for SAH/ICH, aortic dissection, AMI
- If patient is eligible for thrombolytic therapy, but SBP > 185 or DBP > 110 → check BP x 3 every 5 minutes.
- Follow attached AHA Approach to Elevated Blood Pressure in Acute Ischemic Stroke
### Approach to Elevated Blood Pressure in Acute Ischemic Stroke

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<thead>
<tr>
<th>Blood Pressure Level, mm Hg</th>
<th>Treatment</th>
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<td><strong>A. Not eligible for thrombolytic therapy</strong></td>
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| Systolic ≤220 OR diastolic ≤120 | Observe unless other end-organ involvement (eg, aortic dissection, acute myocardial infarction, pulmonary edema, hypertensive encephalopathy)  
Treat other symptoms of stroke (eg, headache, pain, agitation, nausea, vomiting)  
Treat other acute complications of stroke, including hypoxia, increased intracranial pressure, seizures, or hypoglycemia | |
| Systolic >220 OR diastolic 121–140 | Labetalol 10–20 mg IV for 1–2 min  
May repeat or double every 10 min (max dose 300 mg)  
OR  
Nicardipine 5 mg/h IV infusion as initial dose; titrate to desired effect by increasing 2.5 mg/h every 5 min to max of 15 mg/h  
Aim for a 10%–15% reduction in blood pressure | |
| Diastolic >140 (refractory to the above treatment) | Nitroprusside 0.5 mcg/kg min⁻¹ IV infusion as initial dose with continuous blood pressure monitoring  
Aim for a 10%–15% reduction in blood pressure | |
| **B. Eligible for thrombolytic therapy** | |
| Pretreatment | |
| Systolic >185 OR diastolic >110 | Labetalol 10–20 mg IV for 1–2 min (Unless there are contraindications)  
May repeat 1 time or nitropaste 1–2 in | |
| During/after treatment | |
| 1. Monitor blood pressure | Check blood pressure every 15 min for 2 h, then every 30 min for 6 h, and finally every hour for 16 h | |
| 2. Systolic 180–230 OR diastolic 105–120 | Labetalol 10 mg IV for 1–2 min  
May repeat or double labetalol every 10–20 min to maximum dose of 300 mg or give initial labetalol dose, then start labetalol drip at 2–8 mg/min | |
| 3. Systolic >230 OR diastolic 121–140 | Labetalol 10 mg IV for 1–2 min  
May repeat or double labetalol every 10 min to maximum dose of 300 mg, or give initial labetalol dose, then start labetalol drip at 2–8 mg/min  
OR  
Nicardipine 5 mg/h IV infusion as initial dose and titrate to desired effect by increasing 2.5 mg/h every 5 min to maximum of 15 mg/h; if blood pressure is not controlled by labetalol, consider sodium nitroprusside | |
| 4. Diastolic >140 | Sodium nitroprusside 0.5 mcg/kg min⁻¹ IV infusion as initial dose and titrate to desired blood pressure | |