### UNC Code Stroke Pathway (ED)

#### EMS Pre-Notification
- Obtain name & DOB from EMS
- If last known normal (LKN) is 24+ hours, go directly to assigned room for treatment
- Brief Neuro Exam within 1”10 minutes
- Manage overall care
- Transport to assigned room

#### ED MD
- Notify RN to begin mixing alteplase
- Check CT results & exam
- Notify RN to begin mixing alteplase
- Communicate treatment plan to ED RN/Family
- Complete advance imaging (if not done)

#### ED RN
- Complete advance imaging (if not done)
- Notify ED MD & Neuro for BP 185/110
- Obtain FOC Glucose
- Full set of Vitals
- Neuro Assessment
- Cardiac Monitoring
- Notify CT scan to receive room
- Obtain & document patient weight in EPIC

#### NEU Resident
- Obtain history from patient/caregiver
- If patient is on warfarin, notify RT to obtain
- Initiate advanced imaging plan (if needed)
- Review Initial NC CT read. Implement Hemorrhagic Stroke pathway as needed
- Determine IV eligibility (Goal: Door to Alteplase ≤30 mins)
- Obtain 2nd IV for alteplase
- Notify ED MD & Neuro for BP 185/110
- Obtain FOC Glucose
- Full set of Vitals
- Neuro Assessment
- Cardiac Monitoring
- Notify CT scan to receive room
- Obtain & document patient weight in EPIC

#### PATIENT ARRIVES
- Obtain name & DOB from EMS
- If last known normal (LKN) is 24+ hours, go directly to assigned room for treatment
- Brief Neuro Exam within 1”10 minutes
- Manage overall care
- Transport to assigned room
- Notify RN when order is placed & verify
- Notify ED RN to begin mixing drug
- Consult NSICU & enter place patient in bed
- Facilitate rapid transport to NIR to facilitate groin puncture by 60 minutes

#### Post-alteplase monitoring if given & transfer to NIR or inpatient unit
- Maintain SBP ≤180 and DBP ≤105 or ≤160/90 on nicardipine
- Monitor for post-alteplase complications
- See BP Management for Alteplase Patients on Reverse
- See IV Infillation & Serious Complications on reverse

[Diagram of UNC Code Stroke Pathway (ED)]

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1. See Failsafe Pager Process on Reverse
2. See Code Stroke Communication Flow for Alteplase Administration on Reverse
3. See BP Management for Alteplase Patients on Reverse
4. See IV Infillation & Serious Complications on reverse
**POST-Alteplase BP Management Guidelines:**

**Patient who DOES require antihypertensive medication(s) pre-alteplase:**

- If patient is treated pre-alteplase with antihypertensive, a nicardipine drip order should be placed with alteplase order
- Goal BP for nicardipine titration is <160/90. Titrate every 5-15 minutes until goal BP is reached.
- Order for notify LIP if BP is >180/105 should still remain and this should be treated as an emergency.

**Patient who DOES NOT require antihypertensive medication(s) pre-alteplase:**

- NEU MD will order PRN antihypertensives for BP >180/105 mmHg when Alteplase order is placed.
- *RN to notify LIP after 1st PRN dose of antihypertensive is administered.
- LIP will order a Nicardipine drip after 1st PRN antihypertensive dose

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**Guidelines for IV Infiltration During Alteplase Infusion:**

- Change infusion to alternate IV site for continuation of drug
- It is not necessary to re-dose drug
- Treat infiltrated site locally with elevation and warm compress
- Document in EMR

**Post-Alteplase (tPA) Serious Complication Management Guidelines:**

**Decline in Neuro Exam, Suspicion of Intracranial Hemorrhage:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, STAT Non-Contrast Head CT

**Angioedema:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, follow UNC ED Allergic Reaction Protocol

**Other Serious Hemorrhage:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, prepare for diagnostic tests to evaluate (dependent on location)

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**Pre-Alteplase BP Management Guidelines:**

If patient is otherwise eligible for alteplase, except that BP is >185/110:

- Labetalol 10-20mg IV over 1-2 minutes
- FOLLOWED BY
  - Nicardipine 5mg/h IV, titrate up by 2.5mg/h every 5-15 minutes, maximum dose 15mg/hr. When desired BP is reached, adjust to maintain proper BP limits
  - Clevidipine 1-2mg/h IV, titrate by doubling the dose every 2-5 minutes until desired BP reached; maximum dose 21mg/hr

Note: If Nicardipine or Clevidipine is immediately available, may begin without initial Labetalol dose

Note: Other agents (eg, hydralazine) may also be considered.

**Post-Alteplase (tPA) Serious Complication Management Guidelines:**

**Decline in Neuro Exam, Suspicion of Intracranial Hemorrhage:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, STAT Non-Contrast Head CT

**Angioedema:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, follow UNC ED Allergic Reaction Protocol

**Other Serious Hemorrhage:**

- STOP Alteplase (tPA) if infusing, Notify Neurology STAT, prepare for diagnostic tests to evaluate (dependent on location)

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**Resources:**

- Refer to Comprehensive Neurologic Assessment for the Adult Patient (NURS D145)
- Acute ICH Treatment Algorithm:
  - Under Clinical Documents on EM Website (http://www.med.unc.edu/emergmed/resources-links/clinical-documents)
- Anticoagulation Reversal in the ED:
  - Under Clinical Documents on EM Website (http://www.med.unc.edu/emergmed/resources-links/clinical-documents)