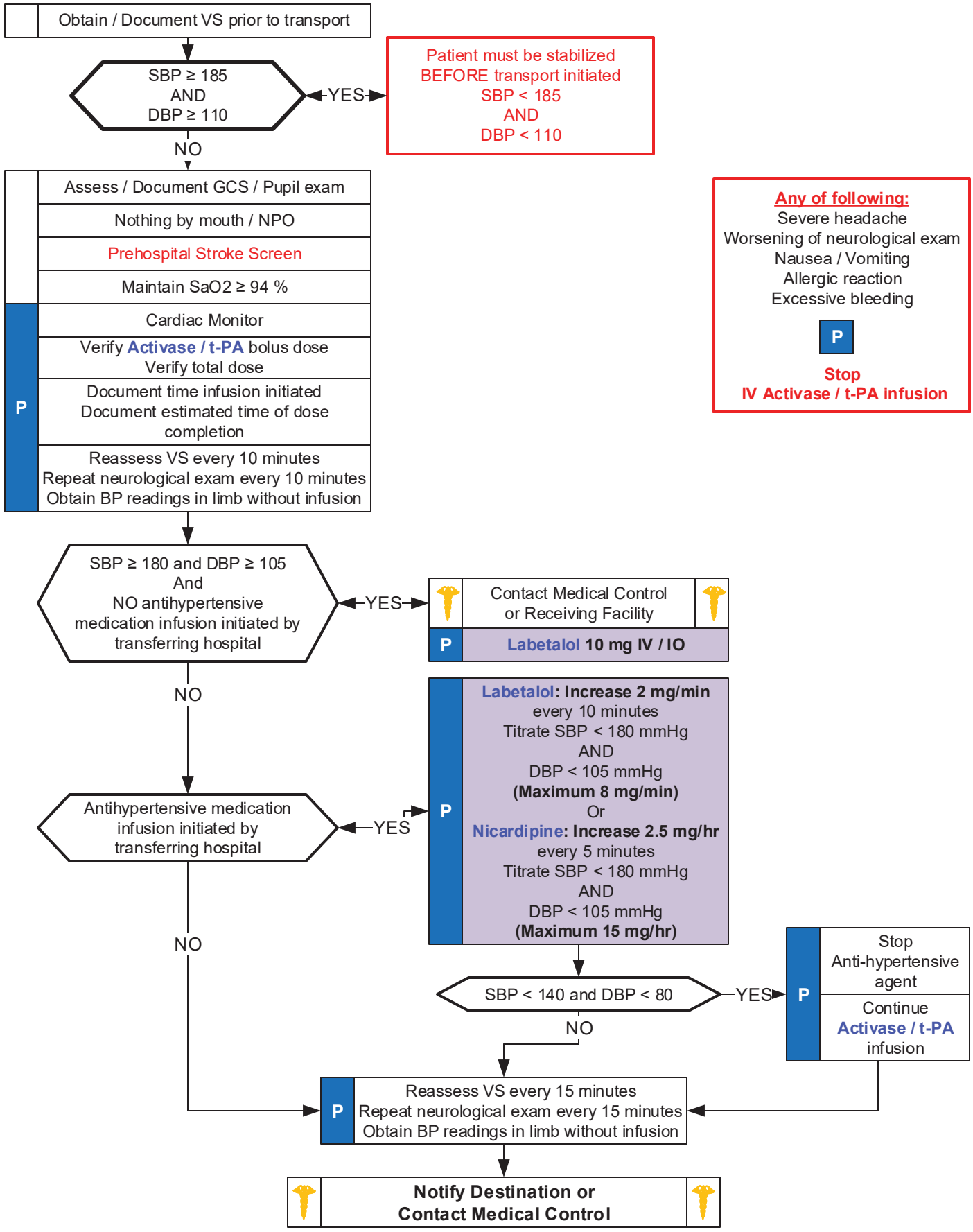


# Suspected Stroke: Activase / t-PA



Adult Medical Protocol Section

# Suspected Stroke: Activase / t-PA



## Hypertension During t-PA Infusion:

When SBP is  $\geq 180$  and DBP is  $\geq 105$  Labetalol 10 mg IV push may be administered. Medical Control or receiving Stroke Center (preferred) should be contacted for further orders concerning blood pressure management after this initial dose. This assumes antihypertensive medications are not infusing from transferring hospital.

### Nicardipine (Cardene):

Common antihypertensive which may be initiated by transferring facility. Used for blood pressure management. Calcium channel blocker.

### Common reactions:

Headache, Peripheral edema, Dizziness, Nausea / vomiting  
Tachycardia / palpitations

### Adverse reactions:

AV Block, MI, Ventricular Tachycardia, Angina exacerbation  
Allergic reactions

### Labetalol (Normodyne):

Common antihypertensive which may be initiated by transferring facility (infusion) or administered during transport with Medical Control orders. Used for blood pressure management. Beta blocker.

### Contraindications:

Asthma, CHF, 2\* or 3\* Heart Block, Bradycardia

### Common reactions:

Headache, Postural Hypotension, Dizziness, Diaphoresis

### Adverse reactions:

Bradycardia, Ventricular Dysrhythmias, Allergic reactions

## Target SBP and DBP during t-PA administration:

A SBP of 170 - 180 and a DBP of 95 - 105 is a reasonable target range. Main target is to keep SBP  $< 180$  and DBP  $< 105$  during and following t-PA administration. While aggressive blood pressure control is warranted during t-PA administration, episodes of hypotension give rise to increased morbidity and mortality. Be cautious in titrating antihypertensive medications with the idea that slow and steady reduction is key. Wide and quick swings in blood pressure can worsen condition.

## Hypotension:

Hypotension should be aggressively treated as this can worsen cerebral perfusion pressure and outcomes. Unless contraindicated keep Head of Bed elevated 20 to 30 degrees.

## **Pearls**

- **This protocol is intended for interfacility transfer patients only. Medication must be started at initial treating hospital.**
- **Recommended Exam: CPSS/MEND Exam, Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, Neuro**
- **Items in Red Text are key performance measures used in protocol compliance.**
- **The Reperfusion Checklist should be completed for any suspected stroke patient.**
- **Onset of symptoms** is defined as the last witnessed time the patient was symptom free (i.e. awakening with stroke symptoms would be defined as an onset time when the patient went to sleep or last time known to be symptom free.)
- The differential listed on the Altered Mental Status Protocol should also be considered.
- Be alert for airway problems (swallowing difficulty, vomiting/aspiration).
- Hypoglycemia can present as a localized neurologic deficit, especially in the elderly.
- **Infusion Pump Alarm / No Flow:**
  - Remove drip chamber from Activase / t-PA bag.
  - Spike Activase / t-PA drip chamber to NS bag.
  - Restart infusion to complete medication remaining in IV tubing.
- **Medication dosing safety:**
  - When IV **Activase / t-PA** dose administration will continue en route, verify estimated time of completion.
  - Verify with sending hospital that excess **Activase / t-PA** has been withdrawn from the bottle and wasted.
  - This ensures the bottle will be empty when the full dose is finished. *For example, if the total dose is 70 mg, then 30 cc should be withdrawn and wasted since a 100 mg bottle of **Activase / t-PA** contains 100 mL of fluid when reconstituted.*
  - Sending hospital should apply a label to **Activase / t-PA** bottle with the number of mL of fluid that should be in the bottle in case of pump failure during transit.
- **Allergy / Anaphylaxis:**
  - Activase / t-PA**, is structurally identical to endogenous t-PA and therefore should not induce allergy, single cases of acute hypersensitivity reactions have been reported.
  - Angioedema:**
    - Rapid swelling (edema) of the dermis, subcutaneous tissue, mucosa and submucosal tissues. Typically involves the face, lips, tongue and neck.
    - Almost always self limiting but may progress to interfere with airway / breathing so close monitoring is warranted.
    - Utilize the Allergy / Anaphylaxis Protocol as indicated and also for angioedema. Infusion should be stopped.
    - Give all medications related to the Allergy / Anaphylaxis Protocol by IV route only as patient should remain NPO.