**Tissue Plasminogen Activator (tPA) Treatment Protocol**

**IPA Candidate**
- < 4.5 hrs from onset
- ≥ 2 years
- Persistent focal deficit
- No contraindications
- Proven infarct

**Pharmacy** prepares tPA infusion with stat release to ED or PICU.

- **Bolus dose**: 0.09 mg/kg IV over 5 min
- **Infusion dose**: 0.81 mg/kg IV over 1 hour
- **Total dose**: 0.9 mg/kg IV
- **Nurse/MD double checks dose with pharmacy**
- **Max IPA dose is 90 mg**

**Keep blood pressure (BP) within normal limits for age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Blood Pressure (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–3 mo</td>
<td>65–85/45–55</td>
</tr>
<tr>
<td>3–6 mo</td>
<td>70–90/50–55</td>
</tr>
<tr>
<td>6–12 mo</td>
<td>80–100/55–65</td>
</tr>
<tr>
<td>1–3 yr</td>
<td>80–105/55–70</td>
</tr>
<tr>
<td>3–6 yr</td>
<td>90–110/60–70</td>
</tr>
<tr>
<td>6–12 yr</td>
<td>100–120/60–75</td>
</tr>
<tr>
<td>12+ yr</td>
<td>110–130/65–75</td>
</tr>
</tbody>
</table>

- **Patients older than 12 years**: BP > 15% above the 95th percentile for more than an hour or > 20% above the 95th percentile at any time

- **Labetalol** 0.2 mg/kg IV push over 2–3 min, repeat q15 minutes prn
- **Consider Nicardipine drip**, 1 mcg/kg/min, titrate to desired BP
- **Use with caution in patients with asthma or underlying cardiac disease**

**IPA Contraindications**

- > 4.5 hrs from last seen well
- Patients in whom time of symptom onset is unknown
- Stroke, major head trauma or intracranial surgery within the last 3 months
- History of prior intracranial hemorrhage, known AV malformations or aneurysm
- Major surgery or parenchymal biopsy within 10 days
- G1 or G2 bleeding within 21 days
- Patient with neoplasms/malignancy or within one month of completion of treatment for cancer
- Patients with underlying significant bleeding disorder (patients with mild platelet dysfunction, mild Von Willebrand disease or other mild bleeding disorders are not excluded)
- Previously diagnosed primary angitis of the central nervous system or secondary arteritis
- Patients who would decline a blood transfusion if indicated
- Clinical presentation consistent with acute myocardial infarction (MI) or post MI pericarditis that requires evaluation by cardiology before treatment
- Arterial puncture at noncompressible site or lumbar puncture within last 7 days. Patients who have had cardiac cath via a compressible artery are not excluded

**ETIOLOGY**

- Stroke due to subacute bacterial endocarditis, sickle cell disease, meningitis, embolism (bone marrow, air or fat), or Moyamoya disease

**LAB DATA**

- Glucose < 50 mg/dL (2.78 mmol/L) or > 400 mg/dL (22 mmol/L)
- Bleeding diathesis including Platelets < 100,000; PT > 15 sec (INR >1.4) or elevated PTT > upper limits of the normal range

Disclaimer: Pathways are intended as a guide for practitioners and do not indicate an exclusive course of treatment nor serve as a standard of medical care. These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

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ChildrensNebraska.org/Pathways