



<ul style="list-style-type: none"> <li>• <b>Treatments</b></li> </ul>	<ul style="list-style-type: none"> <li>• Sudden, severe headache with no known cause</li> <li>3. <u>Obtain</u> recent medical and surgical history</li> <li>4. <u>Assess</u> patient for possible <b>IV tPA administration</b> if symptom onset &lt;3hrs (see tPA protocol) (<i>goal &lt;60 min from ED arrival to tPA treatment</i>).</li> </ul> <hr/> <ol style="list-style-type: none"> <li>1. <u>Apply</u> Oxygen 2-10l/min via nasal cannula or mask to keep O<sub>2</sub> saturation &gt;92% per order.</li> <li>2. <u>Start</u> one IV with NS at TKO rate (60ml/hr) and one IV saline lock.</li> <li>3. <u>Insert</u> a urinary catheter, if necessary, prior to infusion of tPA, as ordered.</li> <li>4. <u>Record</u> I&amp;O</li> <li>5. <u>Treat</u> the following BP with medications as ordered:       <ul style="list-style-type: none"> <li>a- Ischemic stroke (not a tPA candidate): SBP &gt;220 and DBP &gt;110</li> <li>b- Ischemic stroke (tPA candidate): SBP&gt;185 and DBP &gt;105</li> <li>c- Hemorrhagic stroke:           <ul style="list-style-type: none"> <li>. Intracranial hemorrhage (ICH): Systolic BP &gt;140 and diastolic &gt;80</li> <li>. Subarachnoid hemorrhage (SAH): Systolic BP &gt;140 and diastolic &gt;80 or as ordered.</li> </ul> </li> </ul> </li> <li>6. <u>Inform</u> MD of:       <ul style="list-style-type: none"> <li>- BP:           <ul style="list-style-type: none"> <li>a. Ischemic stroke (not a tPA candidate): SBP &gt;220 or &lt;120; DBP &gt;110 or &lt;60, or as ordered</li> <li>b. Ischemic stroke (tPA candidate): SBP &gt;185 or &lt;100; DBP &gt;105 or &lt;60, or as ordered</li> <li>c. Hemorrhagic stroke:               <ul style="list-style-type: none"> <li>- Systolic &gt;140, or as ordered</li> <li>- Diastolic &gt;80, or as ordered</li> </ul> </li> </ul> </li> <li>- HR &gt;120 or &lt;50 or as ordered</li> <li>- RR &gt;30 and/or O<sub>2</sub> sat &lt;92% or as ordered</li> <li>- T &gt;37.8°C (100°F) or as ordered</li> <li>- Any worsening or new neurological symptoms or as ordered</li> </ul> </li> </ol>
<ul style="list-style-type: none"> <li>• <b>Test and Diagnostics</b></li> </ul>	<hr/> <ol style="list-style-type: none"> <li>1. <u>Obtain</u> Labs:       <ul style="list-style-type: none"> <li>- STAT: CBC, Platelets, PT/PTT, antiFactor Xa, Chem panel (electrolytes, Glucose, BUN and Creatinine).</li> <li>- Other labs: Consider CXR, urine pregnancy test, toxicology screen as needed</li> </ul> </li> <li>2. <u>Transport</u> patient to radiology for CT scan of head without contrast  <i>For "stroke protocol" patients, goals:</i>  <i>&lt;25 min from ED arrival/order to CT;</i>  <i>&lt;45 min from ED arrival/order to read of CT</i> </li> <li>3. <u>Obtain</u> 12-lead EKG as ordered</li> </ol>
<ul style="list-style-type: none"> <li>• <b>Activity</b></li> </ul>	<hr/> <ol style="list-style-type: none"> <li>1. Bed rest with HOB ↑ 30° or in recovery position to prevent aspiration</li> </ol>
<ul style="list-style-type: none"> <li>• <b>Nutrition</b></li> </ul>	<hr/> <ol style="list-style-type: none"> <li>1. <u>Keep</u> patient NPO until swallow screened by MD or speech therapist, otherwise as ordered.</li> <li>2. <u>Obtain</u> actual or estimated body weight.</li> </ol>
<ul style="list-style-type: none"> <li>• <b>Patient/Family Education</b></li> </ul>	<hr/> <ol style="list-style-type: none"> <li>1. Provide information regarding Emergency Department Care</li> </ol>

<ul style="list-style-type: none"> <li>• <b>Transfer</b></li> </ul>	<p>2. Provide stroke education (Recovery Guide)</p> <hr/> <p>1. <u>Transfer</u> patient to OR, IR, ICU, TICU3 (stroke unit), or Med/Surg unit as appropriate.</p>
<p><b>B. <u>Subsequent Care:</u></b></p> <ul style="list-style-type: none"> <li>• <b>Medical</b></li> <li>• <b>Nursing</b></li> <li>• <b>Early Rehabilitation</b></li> <li>• <b>Nutrition</b></li> <li>• <b>Psychological Support</b></li> <li>• <b>Patient/Family Education</b></li> <li>• <b>Discharge Planning</b></li> </ul>	<p>Preventative care: Most ischemic stroke patients should receive an antithrombotic agent such as aspirin, an antihypertensive drug, and a lipid lowering agent (statin) before discharge. Target blood pressure in most patients should be <math>\leq 120/80</math> and target LDL should be <math>\leq 70-100</math>. Hemorrhagic stroke patients should not receive an antithrombotic agent unless specifically ordered.</p> <p>Please see CVA Nursing Standard Care Plan for: vital signs and neurological assessment, blood pressure management, airway and breathing support, intracranial management, seizure management, fever and pain management, and lack of mobility support.</p> <ul style="list-style-type: none"> <li>- Obtain ST/PT/OT consultation and treatment on the first day of admission or ASAP per orders.</li> <li>- Obtain evaluation for Acute Rehabilitation ASAP per order if indicated.</li> <li>- Encourage mobilization and ambulation within 48 hours of admission.</li> </ul> <p>Obtain nutritional assessment and support per order if indicated.</p> <p>Provide emotional and spiritual support to patient/families. Observe for symptoms of depression and intervene ASAP (see Nursing CVA Standard Care Plan).</p> <p>Provide stroke education and secondary stroke prevention information (see Nursing CVA Standard Care Plan and Stroke Recovery Guide). Provide smoking counseling if indicated.</p> <p>Facilitate transition from acute care to acute rehab, skilled nursing facility, or home with assistance of case manager and/or social worker.</p>
<p><b>C. <u>JCAHO Indicators</u></b></p> <p><b>1. tPA Consideration</b></p>	<p>Data related to all indicators listed here will be tracked.</p> <p>All patients who present at hospital with symptoms of an ischemic stroke with symptom onset of 3 hours or less should be considered to receive intravenous (IV) tPA. Patients who are considered include:</p> <ul style="list-style-type: none"> <li>- Patients who are considered but determined to be ineligible to receive IV tPA</li> <li>- Patients who were offered tPA</li> </ul>

<p><b>2. DVT Prophylaxis</b></p> <p><b>3. Discharged on Antithrombotics</b></p> <p><b>4. Patients with Atrial Fibrillation Receiving Anticoagulation Therapy</b></p>	<p>- Patients who received tPA (Please see tPA protocol and Inclusion/Exclusion criteria for tPA). <u>Exclusion:</u> Patients with time of onset unknown or &gt; 3 hours upon arrival to Emergency Department.</p> <p>Patients with an ischemic stroke and who are <b>non-ambulatory</b> should start receiving DVT prophylaxis by end of hospital day 2. DVT prophylaxis by means of non-pharmaceutical (antiembolic stockings and assistance with ambulation) and pharmaceutical (anticoagulants) will be provided to prevent DVT as ordered. <u>Exclusion:</u> Patients who are discharged or expired before hospital day 2</p> <p>Patients with an ischemic stroke or a transient ischemic attack (TIA) should be prescribed antithrombotic therapy at discharge unless contraindicated. <u>Exclusion:</u> Patients who are discharged/transferred to another short term general hospital for inpatient care, who are expired, who leave AMA, and who have contraindications/possible reasons for not receiving antithrombotics.</p> <p>Patients with an ischemic stroke with atrial fibrillation discharged on anticoagulation therapy unless it is contraindicated. <u>Exclusion:</u> Patients who are discharged/transferred to another short term general hospital for inpatient care, who are expired, who leave AMA, and who have contraindications/possible reasons for not receiving anticoagulation therapy.</p>
<p><b>Author:</b></p> <p><b>Reviewed and approved by:</b></p> <p><b>Reference:</b></p>	<p>Jackie Phan, RN, MSN, FNP, CNS</p> <p>Dr. David Tong and Dr. Jeffrey Thomas</p> <p>American Stroke Association, Brain Attack Coalition, National Stroke Association, and the National Institute of Neurologic Disorders and Stroke.</p>