

**Scope and Target Population:**

The scope of the following guideline is the 48 hours beginning when a patient age 18 years or older presents to a provider with symptoms of ischemic stroke or transient ischemic attack. For most stroke patients who are hospitalized, the guideline's temporal scope will expire before discharge. The guideline work group on Diagnosis and Initial Treatment of Ischemic Stroke recognizes that two time frames are critically important in the overall outcome, and fall outside the defined scope. They are prehospital care, and continuing care of stroke patients after 48 hours, which includes the development of a long-term secondary prevention strategy.

**Clinical Highlights and Recommendations:**

- Intravenous tPA continues to be a proven treatment for ischemic stroke when administered within recommended time parameters.
- Intravenous tPA, if given, should be administered within three hours (4.5 hours in selected patients; see Annotation #18, "Consider IV Tissue Plasminogen Activator [tPA]/See Stroke Code Algorithm") of stroke onset and less than 60 minutes of arrival at the emergency department.
- Patients presenting with signs and symptoms of transient ischemic attack should be evaluated for risk of immediate future events using the ABCD2 score.
- Patients presenting with stroke onset who are not candidates for intravenous tPA should promptly be given aspirin, after exclusion of hemorrhage on CT scan.
- Education regarding early stroke symptoms, risk factors, diagnostic procedures, and treatment options should be offered to the patient and family. This should be documented in the patient chart.
- Medical management for prevention of complications within the initial 24-48 hours of diagnosis and initial treatment of ischemic stroke include:
  - manage blood pressure appropriately;
  - treat hyperthermia;
  - treat hypo- or hyperglycemia;
  - administer intravenous IV fluids;
  - initiate deep vein thrombosis prophylaxis;
  - perform swallow evaluation before oral intake, including medications;
  - initiate early rehabilitation and
  - perform nutritional status assessment.

**Priority Aims:**

1. Increase the percentage of patients age 18 and over presenting within 3 hours, or up to 4.5 hours for patients meeting selected criteria of stroke onset who are evaluated within 10 minutes of arriving in the emergency department.
2. Increase the percentage of patients at high risk for stroke presenting with TIA symptoms within 24 hours who are admitted to the hospital.
3. Increase the percentage of patients receiving appropriate thrombolytic and antithrombotic therapy for ischemic stroke (use of tPA and aspirin).
4. Increase the percentage of non-tPA recipients who have hypertension appropriately managed in the first 48 hours of hospitalization or until neurologically stable.
5. Increase the percentage of stroke patients who receive appropriate medical management within the initial 24-48 hours of diagnosis for prevention of complications such as:
  - Hypoglycemia and hyperglycemia
  - Hyperthermia
  - Dehydration
  - Hypoxia
  - Deep vein thrombosis
  - Aspiration
  - Immobility
  - Nutritional status decline
6. Improve patient and family education of patients with ischemic stroke in both the emergency department and the admitting hospital unit.