

Top Ten Things to Know 2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke

1. On average, every 40 seconds, someone in the United States has a stroke. Of these, about 87% are ischemic strokes caused by a clot blocking a vessel that supplies blood to the brain.
2. In many cases, there are effective treatments that reduce or eliminate the brain damage caused by acute ischemic stroke (AIS), if treatment is provided fast enough.
3. The purpose of these guidelines is to provide an up-to-date comprehensive set of recommendations for clinicians caring for adult patients with AIS. These guidelines address prehospital care, urgent and emergency evaluation and treatment with intravenous and endovascular therapies, and in-hospital management including secondary prevention measures that are begun during the initial hospitalization.
4. Immediate effective treatment for AIS in selected patients can include:
 - intravenous alteplase up to 4.5 hours after onset
 - catheter-based endovascular mechanical clot extraction up to 24 hours.
5. Regional systems of stroke care should be developed, including healthcare facilities capable of providing initial emergency care with administration of intravenous (IV) alteplase, and centers capable of performing endovascular stroke treatment with comprehensive peri-procedural care. Systems of care should facilitate rapid transport to these advanced centers when appropriate. Administration of IV alteplase guided by telestroke consultation for AIS patients may be as safe and as beneficial as that of stroke centers.
6. In patients who did not receive IV alteplase or endovascular treatment and do not have a comorbid condition requiring acute antihypertensive treatment:
 - with blood pressure below 220/120 mmHg, initiating or reinitiating treatment of hypertension within the first 48-72 hours after an AIS is not effective to prevent death or dependency
 - with blood pressure greater than or equal to 220/120 mmHg, the benefit of initiating or reinitiating treatment of hypertension within the first 48-72 hours is uncertain.
7. Immobile patients with AIS should be treated with intermittent pneumatic compression for prevention of venous thromboembolism. The benefit of prophylactic-dose subcutaneous heparin (unfractionated heparin or low-molecular weight heparin) in these patients is not well established.
8. Cardiac monitoring should be performed for at least the first 24 hours. The clinical benefit of prolonged ambulatory cardiac monitoring to detect atrial fibrillation after AIS is uncertain.
9. For patients with non-disabling AIS in the carotid territory who are candidates for carotid endarterectomy or stenting, non-invasive imaging of the cervical vessels should be performed routinely within 24 hours of admission. It is reasonable to perform the revascularization procedure between 48 hours and 7 days of the index event, rather than delay treatment if there are no contraindications.
10. Effective treatment for AIS must be instituted quickly and measures to prevent stroke recurrence should be started as soon as possible.

Powers WJ, Rabinstein AA, Ackerson T, Adeoye OM, Bambakidis NC, Becker K, et al; on behalf of the American Heart Association Stroke Council. [2018 Guidelines for the early management of patients with acute ischemic stroke: a guideline for healthcare professionals from the American Heart Association/American Stroke Association](#) [published online ahead of print January 24, 2018]. *Stroke*. doi: 10.1161/STR.000000000000158.