



American Stroke Association.
A division of the American Heart Association.

Together to End Stroke®



HOW-TO GUIDE

**STROKE
SIMULATION
EVENT**



Stroke Simulation Event Background

What is an Acute Ischemic Stroke?

Acute ischemic stroke, which accounts for about 87 percent of all strokes, occurs when a vessel supplying blood to the brain is obstructed. Stroke is the leading cause of serious, long-term disability.

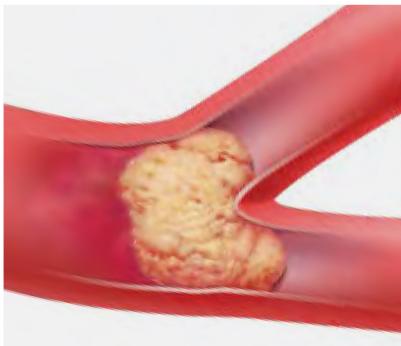
How are Acute Ischemic Strokes Treated?

- The **2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke** provides up-to-date, comprehensive recommendations for clinicians caring for adult patients with AIS. The guidelines address pre-hospital care, urgent and emergency evaluation and treatment with intravenous and endovascular therapies, and in-hospital management including secondary prevention measures that begin during initial hospitalization.
- Immediate effective treatment for AIS in selected patients can include: intravenous alteplase

treatment for up to 4.5 hours after onset, and catheter-based endovascular mechanical clot extraction for up to 24 hours.

All treatments for acute ischemic stroke are time sensitive!

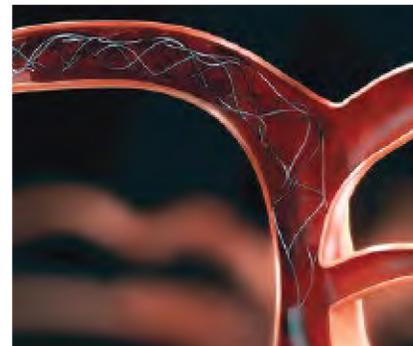
- AHA/ASA tools help bring these **guidelines into everyday practice as soon as possible** — allowing more patients to benefit from the latest science-based treatment recommendations.



Ischemic stroke: an obstruction within a blood vessel



Alteplase IV r-tPA treatment



Mechanical thrombectomy stent retriever removal



What is a Stroke Simulation or Mock Stroke Code?

- **Stroke simulations**, sometimes referred to as mock codes or drills, allows hospitals to **train and evaluate** their protocols for a variety of medical emergencies. To help hospitals and emergency response systems conduct a stroke simulation, the AHA/ASA has developed free tools (see below). Many hospitals already conduct stroke simulations for continuing education or accreditation.
- **Tools for stroke systems of care to use:**
 - **Stroke simulation system of care scenarios**
 - **Pre-hospital/in-hospital checklists and feedback forms**
 - **Other helpful materials**

Why Stroke Simulation Events Matter?

- Every second counts when it comes to treating stroke. Evidence has shown that quick decision and timely treatment may improve recovery. It's important that EMS, hospitals and their staff are prepared for a stroke emergency and have protocols in place to treat patients per the latest AHA/ASA guidelines. It's also critical that the public understands that time is critical when someone is having a stroke and that activating the emergency medical system immediately results in quicker, better care.
- Stroke simulation events will provide a continuing education opportunity for healthcare professionals or a stroke treatment education opportunity for the public. While their target audiences differ, both objectives present the **opportunity to improve time to treatment and positively impact stroke outcomes**.
- This guide supports your goal to have a public/ media-friendly stroke treatment simulation event in coordination with local hospitals or EMS agencies. In the sections below, you will find recommended planning steps and other considerations you should keep in mind while coordinating your event. Each of these events will be unique, so you'll likely need to adjust planning based on specific factors in your area.



American Stroke Association.
A division of the American Heart Association.

Together to End Stroke®

Determining Your Approach to Planning Your Stroke Simulation Event



Assemble appropriate team members and answer these questions to determine your stroke simulation strategy.

Primary Goals for These Events Include:

A. Advance an advocacy priority

- **Target audience:** can include local senators and representatives
- **Desired outcomes:** support stroke legislation
- **Potential scenario:** 1

B. Educate a public audience on stroke warning signs/treatment

- **Target audience:** can include students, people with a high risk of having a stroke (such as multicultural audiences) and key volunteers
- **Desired outcomes:** learn stroke warning signs, celebrate someone who has had a stroke or has positively impacted the stroke community, and lay the foundation for coming together as a stroke system of care community
- **Potential scenario:** 2, 4, 6

C. Inspire the next generation about medical research

- **Target audience:** can include students, people with a high risk of having a stroke and key volunteers
- **Desired outcomes:** learn the stroke warning signs, celebrate someone who has had a stroke or has positively impacted the stroke community, and lay a foundation for coming together as a stroke system of care community
- **Potential scenario:** 2, 4, 5, 6

D. Improve system response times to acute ischemic stroke

- **Target audience:** can include medical professionals
- **Desired outcomes:** evaluate stroke system of care readiness and lay a foundation for coming together as a stroke system of care community
- **Potential scenario:** 3



American Stroke Association
A division of the American Heart Association.

Together to End Stroke®

Sample Public or Media-Friendly Simulation Event Scenarios



Designed to Advance Advocacy Priority

Possible Situation: Demonstrate to policymakers the importance of well-coordinated stroke systems of care and how specific legislative or regulatory policy can improve access to timely treatment.

State lawmakers and local media are invited to a special stroke simulation event to see stroke treatment first hand, and how legislative policy, current or

proposed, can help patients get treatment in time. The simulation experience ends in a conference room with refreshments and a spokesperson panel with experts and survivors. If there is a current bill, the bill sponsor could be asked to play a role in the simulation to increase interests from the media.

Designed to Educate the Community

Possible Situation: Create a public education buzz event.

The focus of this event is on stroke warning sign recognition, 911 activation and the role of EMS teams. A narrator explains what is going on, and the event ends with the patient going to the appropriate hospital

based on AHA/ASA guidelines. The narrator shares what happens at the hospital so the audience can better understand what stroke treatments are available. All area hospitals are invited to participate at a neutral location like a park or library and provided a table to share educational information.

Designed to Leverage the Patient Experience

Possible Situation: Involved parties prefer the drill to be for internal training, but are open to having a patient volunteer share his or her experience.

Local EMS and hospital system work collaboratively on a simulation event for training. The hospital selects/works with a volunteer (who could also be a local influencer) to serve as the acting patient. The volunteer shares a first-hand account of his/her experience to emphasize to the public the importance of responding quickly to a stroke.

Option A: Non-media: Approvals for the volunteer-drafted article are done in advance and submitted to local media outlets.

Option B: Media: A journalist has a first-hand experience with the local stroke system of care, from symptom onset to treatment. A photographer joins the reporter and captures stills or video to contribute to the final story. Approvals or guidelines are worked out in advance, and the necessary staff notified.



Designed to Educate Students

Possible Situation: Local high school students are interested in learning more about stroke as part of their health class or science-based curriculum.

Local high school students attend a stroke simulation event. If a simulation isn't possible, then a volunteer gives them a tour of the emergency department and

explains what happens when someone comes in with a suspected stroke. The simulation or tour ends in a conference room where a volunteer (perhaps a survivor) candidly answers their questions about stroke and dispels myths they may hold. The event is pitched to local media invited to cover.

Designed to Honor Stroke Heroes (stroke survivors, caregivers, bystanders who recognized the signs of stroke, healthcare professionals, etc.)

Possible Situation: Seek media attention around stroke survivors who have been treated at their facility.

In an invitation-only event, a select group of volunteers walk through a stroke simulation exercise at a hospital.

The event ends with a reception in which local stroke volunteers are recognized and share their stories. The event is pitched to media for coverage.

Designed to Educate Audiences Who Are at a High Risk of Suffering a Stroke

Possible Situation: In an event for people at high risk of having a stroke (such as a multicultural group), include a memorable moment for attendees to underscore the emergent nature of stroke and the importance of calling 911.

During a planned event with a controlled crowd, such as a family reunion, someone visibly experiences the signs of stroke. The audience witnesses another person using the F.A.S.T. test, including calling 911. Bystanders will be made aware that the event isn't an actual stroke situation by printed signage indicating "A STROKE SIMULATION IS TAKING PLACE."



American Stroke Association
A division of the American Heart Association.

Together to End Stroke®

Planning Your Event



1. Identify the goals, target audience and call to action for your simulation event.

We encourage you to start planning your event 4–5 weeks in advance.

2. Agree on the appropriate simulation event format and scenario.

E.g. External, internal, public portion only, invitation-only, etc. Use the scenarios above to support the conversation and brainstorm.

RESOURCE: AHA/ASA Stroke Simulation Scenarios

3. Identify the players that should be involved in your ideal simulation event and approvals needed prior to confirmation.

This includes AHA staff, hospital staff and representatives, local stroke groups, EMS agencies, permits.

NOTE: Staffing needs are included in the stroke simulation scenarios.

4. Once players are identified, make appropriate outreach and confirm participation.

Determine whether there are restrictions or requirements from the participating organizations.

5. Bring the stakeholders together for a planning meeting to:

- Jointly agree on Stroke Simulation Scenario from the list in the AHA/ASA's toolkit.
- Confirm time and date of the event.
- Agree on next steps and responsibilities.

RESOURCE: AHA/ASA Stroke Simulation Scenarios

6. Register your event at: [Stroke.org](https://www.stroke.org)

7. Develop the marketing and communications plan based on the confirmed event strategy.

Including but not limited to:

- Timeline
- Budget
- Invitations (if inviting a specific group)
- Patient selection (actor, volunteer or influencer)
- Media materials and timeline for distribution
- Social media activation and timing

8. Create and order signage, participant waivers, confidentiality agreements, as necessary.

9. Day before – Do confirmations and walk through, if desired.

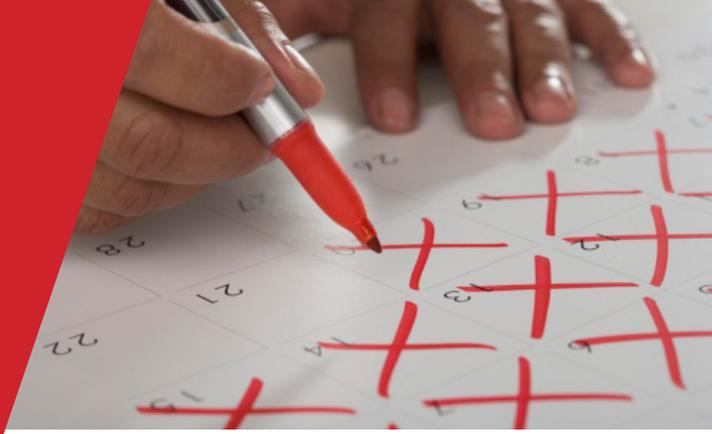
10. Days following:

Share the results of your simulation event (# of attendees, event format, video, photography, feedback on the AHA/ASA provided materials) by emailing strokeheroes@heart.org. AHA/ASA will send you a participation certificate and potentially recognize your event on our Facebook page.



American Stroke Association®
A division of the American Heart Association.

Together to End Stroke®



- 1. If a real stroke code occurs during the event, how will it be handled?**
- 2. If the event happens in a public place, how are we communicating that it's a simulation exercise?**
- 3. Are our spokespeople balanced and/or neutral?**
- 4. If media or the public are invited to witness a hospital training exercise, is it still a safe training environment, where mistakes are learning opportunities and won't reflect poorly on an individual or organization?**
- 5. Will the event be successful even if media doesn't show up to cover it?**
Consider having 1–2 volunteers engage via social media (i.e., Facebook, Twitter). How can you be creative with non-traditional media?
- 6. How are you leveraging this event through your channels? (Social media, newsletters, website, volunteers)**
- 7. Does everyone who should know about the event in advance know in advance?**

**For more information visit
stroke.org/AISToolkit**