PARALLEL STROKE SYSTEM PROCESSES
Quality care for patients with acute ischemic stroke

Optimizing your institution’s stroke treatment workflow

Effective treatment of acute ischemic stroke (AIS) requires input and collaboration of many clinicians on the stroke team. A well-organized response is essential for timely AIS care. In the following example, to achieve door-to-needle time of ≤60 min, multiple processes begin in parallel.1,2

Sample parallel process workflow2

EMS notifies ER command center of incoming patient and FAST score

Page activation to neurologist, ER physician, CT, ER nurse, pharmacy

IN THE ER HALLWAY

ER Physician assessment
Patient cleared to CT

IN THE CT ROOM

Neurologist assesses clinical scenario and CT

ER nurse #1 starts clock, assesses weight, runs point-of-care labs

Pharmacy mixes Activase® (alteplase), Activase delivery in CT scanner

Important Safety Information

Indication
Activase® (alteplase) is indicated for the treatment of acute ischemic stroke. Exclude intracranial hemorrhage as the primary cause of stroke signs and symptoms prior to initiation of treatment. Initiate treatment as soon as possible but within 3 hours after symptom onset.

Contraindications
Do not administer Activase to treat acute ischemic stroke in the following situations in which the risk of bleeding is greater than the potential benefit: current intracranial hemorrhage (ICH); subarachnoid hemorrhage; active internal bleeding; recent (within 3 months) intracranial or intraspinal surgery or serious head trauma; presence of intracranial conditions that may increase the risk of bleeding; bleeding diathesis; and current severe uncontrolled hypertension.

Please see Important Safety Information throughout and the full Prescribing Information.
How does your institution compare?

**Before hospital arrival**

- Does your EMS prenotify your institution?
- If it does not, how could you start to implement prenotification? Which stroke team members are notified when a stroke code is activated?

- Are critical forms and tools (ie, protocol, order sets, NIHSS, etc) assembled and ready to go before a patient arrives? Do you have a stroke toolkit containing these items?

**In the hospital**

- Where do patient assessments take place? In the ER bed? In the ambulance bay? Can assessments take place en route and/or in the CT room?

- How often is the CT room occupied? How could stroke patients have priority?
  - What processes can take place in the CT room?

- How could team members conduct their assessments in parallel?
  - How early in the process are labs taken? Where are they drawn?

- How early should the pharmacy prepare to mix Activase® (alteplase)?

- What data do you track and how can tracking help identify process gaps?

**What measures can you take to improve your program?**

**Take action and be a champion for quality patient care!**

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**Important Safety Information**

**Warnings and Precautions**

**Bleeding**

Activase can cause significant, sometimes fatal, internal or external bleeding, especially at arterial and venous puncture sites. Avoid intramuscular injections and trauma to the patient. Fatal cases of hemorrhage associated with traumatic intubation in patients administered Activase have been reported. Heparin, aspirin, or Activase may cause bleeding complications; therefore carefully monitor for bleeding. If serious bleeding occurs, terminate the Activase infusion.

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**Orolingual Angioedema**
Monitor patients during and for several hours after infusion for orolingual angioedema. If angioedema develops, discontinue the Activase infusion and promptly institute appropriate therapy.

**Cholesterol Embolization**
Cholesterol embolism, sometimes fatal, has been reported rarely in patients treated with thrombolytic agents.

**Coagulation Tests May be Unreliable during Activase Therapy**
Coagulation tests and/or measures of fibrinolytic activity may be unreliable during Activase therapy.

**Adverse Reactions**
The most frequent adverse reaction associated with Activase AIS therapy is bleeding.

Allergic-type reactions, e.g., anaphylactoid reaction, laryngeal edema, orolingual angioedema, rash, and urticaria have been reported.

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