

FAST and ACT-FAST

Training Video



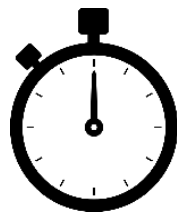
Objectives

1. Acute Stroke Treatment Options
2. Acute Stroke Treatment Time Windows
3. **FAST** Screening Tool
4. **ACT-FAST** Screening Tool

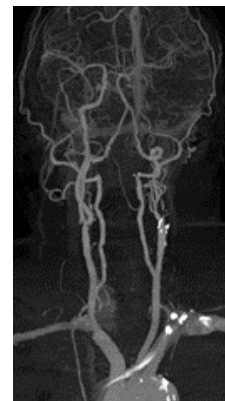
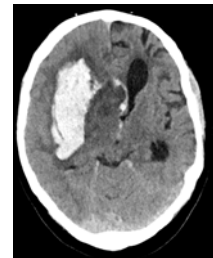


Acute Stroke Treatments

Time sensitive



Patients require imaging before determining eligibility



Imaging is essential for the diagnosis of stroke

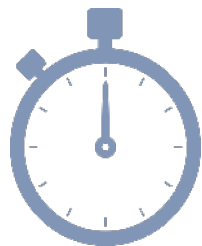
- Exclude hemorrhage
- Assess the degree of brain injury
- Identify the vascular lesion



IV Thrombolytic Treatment

Tissue plasminogen activator (tPA)

- 'Clot buster' medication
- Administered intravenously
- Removes the clot causing the occlusion
- Restores blood flow to the brain



tPA must be
administered within
4.5 hours of stroke
symptom onset

All eligible patients with disabling acute ischemic stroke may be offered an intravenous thrombolytic.



Endovascular Treatment

Endovascular thrombectomy (EVT)

- Neurointerventionalist procedure
- Stent retriever into the femoral artery
- Blocked artery in the brain
- Traps and safely removes the clot



EVT can be performed within **0-6 hours** from stroke symptom onset

For selective patients, late window EVT opportunity is **6-24 hours**

Highly selected patients with a large vessel occlusion identified utilizing the ACT-FAST screening tool may benefit from EVT.



Acute Stroke Treatments

Treatment Windows

IV Thrombolytic



0 - 4.5 H

EVT



0 - 6 H

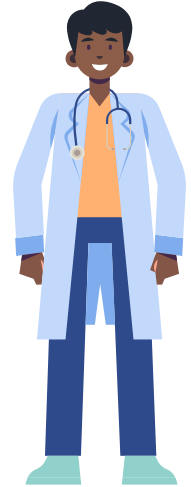
Late Window

6 - 24 H



FAST

- FAST: Face. Arm. Speech. Time.
- Face, Arm, & Speech are the most common symptoms of stroke
- These symptoms apply to all types of strokes: ischemic, hemorrhagic, and transient ischemic attack (TIA)
- FAST is a validated screening tool used for stroke recognition
- ONE positive screen is considered a positive FAST result





FACE

Unilateral facial droop

Ask the patient to smile

Positive Screen:

- Patient has a facial droop to one side





ARM

Unilateral arm/leg weakness or drift

Ask the patient to raise both their arms, or walk a short distance

Positive Screen:

- Patient has arm/leg weakness on one side



SPEECH

Slurred speech, difficulty expressing words, word finding, or difficulty understanding

Ask the patient to repeat a simple phrase or follow a simple command

Positive Screen:

- Patient has slurred speech; difficulty expressing/finding words
- Patient has difficulty understanding simple phrases/commands





TIME

Time of last known well

Ask when was the last time someone saw or spoke with the patient before symptoms started or they were at their at baseline state of health?



TIME



Time at which the patient was last known to be well is the **single most important** piece of information

The last time someone saw or spoke with them **before** symptoms started

I was making dinner at 1700 then fell and I noticed left sided weakness



Last Known Well
1700

I left for work at 0800 and came home at 1600 to my wife with a facial droop



Last Known Well
0800

We went to bed at 2200 and this morning when I went to talk my words were slurred



Last Known Well
2200



FAST

Positive Screen?

*One symptom present results
in a positive screen*

Follow Acute Stroke Protocol

Negative Screen?

*No Face, Arm or Speech
symptoms present*

Patient not on the acute
stroke protocol

Proceed with usual ED care



Complete **FAST**

Screening tool used for stroke recognition
ONE positive screen is considered a positive FAST result



FACE

Unilateral facial droop

Ask the patient to smile

Positive Screen:

- Patient has a facial droop to one side



ARM

Unilateral arm/leg weakness or drift*

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TIME

Time of last known well

Ask when was the last time someone saw or spoke with the patient before symptoms started or they were at their at baseline state of health?



ACT-FAST

- All patients with suspected ischemic strokes whose last known to be well is within **0-24 hours** should be screened by using a large vessel occlusion screening tool
- ACT-FAST is a large vessel occlusion screening tool utilized for anterior circulation strokes
- It is a two step process that provides a positive or negative result by assessing for
 - One-sided weakness
 - Language deficit
 - Gaze preference or hemi-neglect
- Step three guides clinical decision making in the eligibility for EVT
- ACT-FAST is performed by Health Care Providers within the **EMERGENCY DEPARTMENT** setting



Step One



ARM

Unilateral Arm Weakness

*Position both arms with elbows straight
(45 degrees if supine, 90 degrees if sitting)*

Positive Screen:

- One arm falls completely within 10 seconds
- For patients who are uncooperative or cannot follow commands: if you witness minimal or no movement in one arm and normal movement in the other



ACT-FAST

Step One

Positive Screen?

*One sided significant or
complete arm weakness*

Proceed to Step Two

Negative Screen?

*No significant or complete
arm weakness*

If negative STOP

Notify ED Physician and
continue with usual care



ACT-FAST

Step Two

NOTICE

You must identify which side your patient has a **confirmed** significant or complete arm weakness



RIGHT OR LEFT



Step Two

Patient has a **confirmed** significant or complete **RIGHT** sided arm weakness



CHAT

Severe Language Deficit

Ask patient to repeat a phrase or perform simple tasks

Positive Screen:

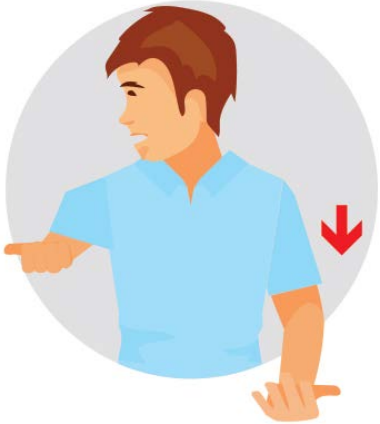
- Patient is mute, speaking gibberish and/or incomprehensible
- Patient is unable to follow simple commands



ACT-FAST

Step Two

Patient has a confirmed significant or complete **LEFT** sided arm weakness



TAP

Gaze and Shoulder Tap Test

Stand on patients weak side while assessing

Positive Screen:

- Patient has consistent gaze away from weak side
- Patient does not quickly turn head/eyes to you when shoulder tapped twice and first name called



ACT-FAST

Step Two

Positive Screen?

*Language deficit with RIGHT
arm weakness
OR
Gaze preference with LEFT
arm weakness*

Proceed to Step Three

Negative Screen?

*No language deficit with
RIGHT arm weakness
OR
No gaze preference with
LEFT arm weakness*

If negative STOP

Notify ED Physician and
continue with usual care



ACT-FAST

Step Three

Positive Screen

If all criteria met

Patient may have large vessel occlusion and may benefit from EVT

Follow Acute Stroke Protocol

EVT Eligibility Criteria:

- Deficits are NOT pre-existing (mild deficits now worse are acceptable as true deficits)
- Living at home independently with only minor assistance – must be independent with hygiene, personal care, walking (walking aids not included)
- Does NOT have stroke mimics: seizure preceding symptoms, hypoglycemia (glucose less than 2.8 mmol/L), active malignancy with brain lesions



Complete **ACT-FAST**

Screening tool used for stroke severity caused by large vessel occlusions
Must complete all steps to be considered a positive ACT-FAST result

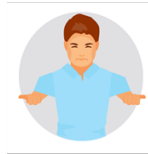
Step One



Proceed if
POSITIVE

If negative
STOP

Notify ED
Physician and
continue with
usual care



ARM Unilateral Arm Weakness

Position both arms with elbows straight (45 degrees if supine, 90 degrees if sitting)

Positive Screen:

- One arm falls completely within 10 seconds
- For patients who are uncooperative or cannot follow commands: if you witness minimal or no movement in one arm and normal movement in the other

Step Two



Proceed if
POSITIVE

If negative
STOP

Notify ED
Physician and
continue with
usual care

Unilateral **RIGHT** arm weakness?



CHAT Severe Language Deficit

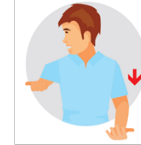
Ask patient to repeat a phrase or perform simple tasks

Positive Screen:

- Patient is mute, speaking gibberish and/or incomprehensible
- Patient is unable to follow simple commands

Unilateral **LEFT** arm weakness?

TAP Gaze and Shoulder Tap Test



Stand on patients weak side while assessing

Positive Screen:

- Patient has consistent gaze away from weak side
- Patient does not quickly turn head/eyes to you when shoulder tapped twice and first name called

Step Three



If **POSITIVE**,
potential LVO

Eligibility for EVT

Positive screen: (if all criteria met)

- Deficits are NOT pre-existing (mild deficits now worse are acceptable as true deficits)
- Living at home independently with only minor assistance – must be independent with hygiene, personal care, walking (walking aids not included)
- Does NOT have stroke mimics: seizure preceding symptoms, hypoglycemia (glucose less than 2.8 mmol/L), active malignancy with brain lesions



Questions? Contact Us!



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