

THROMBOLYSIS WITH ALTEPLASE 3 to 4.5 HOURS AFTER ACUTE ISCHEMIC STROKE

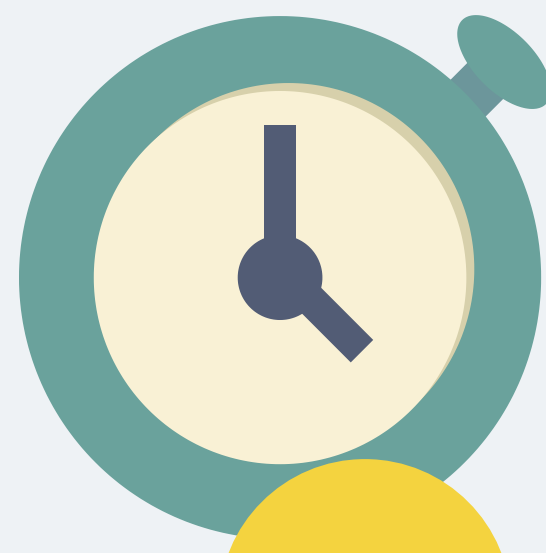
ECASS Investigators

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Background



Alteplase (tPA) is used to breakdown blood clots in ischemic strokes.



3hr

tPA was previously only approved until 3hr post stroke

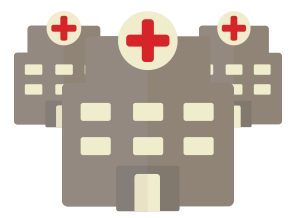


3 - 4.5 hr

Pooled analysis of data from RCTs showed a favourable outcome if treatment was given between 3 - 4.5 hrs

What is the safety and efficacy of tPA given 3 - 4.5 hrs post stroke?

Methods



Double blinded
Multi-site RCT

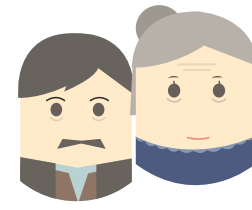


1:1 tPA to
Placebo
randomization

vs



Inclusion



18 to 80 years old



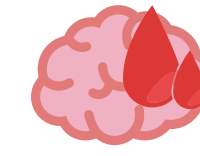
Acute ischemic
stroke



Able to receive the
study drug within 3-
4.5 hours after
symptom onset



Exclusion

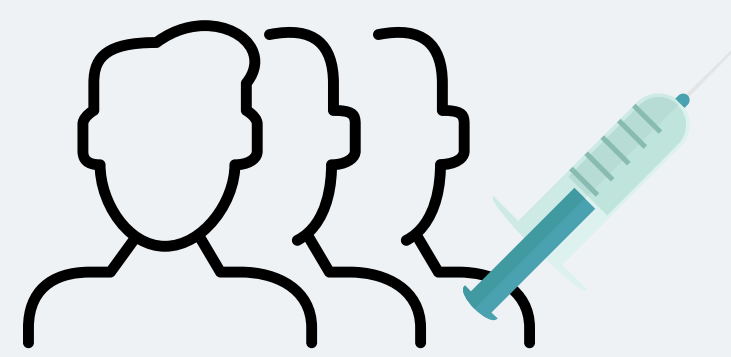


Intracranial
hemorrhage



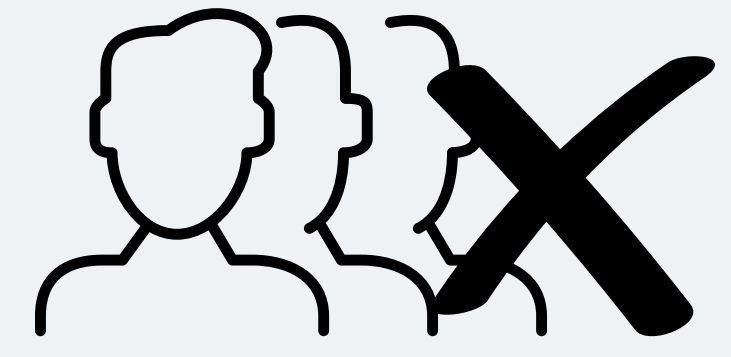
Severe stroke
(NIHSS score >25 or on
imaging techniques)

Results



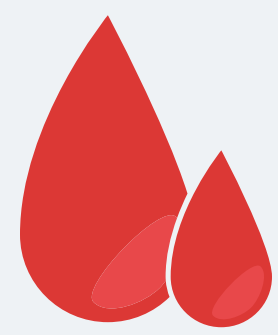
tPA (418)

0.9 mg/kg (max 90mg)



Placebo (403)

No Drug



Symptomatic
Intracranial
Hemorrhage

2.4%*

0.3%



Mortality
(at 90 days,
no significant difference)

7.7%

8.4%



Disability
(at 90 days,
modified Rankin > 1)

45.2%*

52.4%

* = statistically significantly different

Take Home



While **Alteplase treatment given at 3-4.5 hours** after the onset of acute stroke symptoms **INCREASES** the incidence of **symptomatic intracranial hemorrhage**, it can **DECREASE** disability in a select population of patients without changing mortality.

REFERENCES:

ECASS Investigators. (2008). Thrombolysis with Alteplase 3 to 4.5 hours after acute Ischemic Stroke. *New England Journal of Medicine*, 359(13), 1317-1339

This infographic was created by Amy Chung and edited by Alvin Chin

