Emergency and stroke physician combined consensus statement on thrombolysis for acute stroke

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Abstract

The New Zealand Faculty of the Australasian College for Emergency Medicine (ACEM) is the professional body representing the specialist emergency medicine physicians who work in and lead emergency departments of New Zealand. The National Stroke Network Leadership Group represents New Zealand stroke clinicians including stroke physicians and neurologists who work within and lead district health board (DHB) stroke services.

In an effort to promote their shared goal of ensuring patient safety while striving to achieve improved stroke outcomes, the two communities have set up a consensus group to develop this combined emergency physician and neurologist/stroke physician consensus statement on the use of intravenous alteplase in stroke (‘stroke thrombolysis’).

Consensus Statement:

- Stroke thrombolysis with intravenous alteplase is applicable only to a minority of stroke patients and should be seen as a treatment option indicated in carefully selected stroke patients.

- Patients should be selected in accordance with agreed protocols with explicit inclusion and exclusion criteria. These protocols should be aligned with the published literature and established collaboratively between emergency physicians, neurologists, stroke physicians, and other relevant stakeholders. Treatment outside of agreed criteria might increase the risk of adverse outcomes.
• The strongest evidence for benefit of stroke thrombolysis is for patients treated within 3 hours of stroke onset. Emergency physicians, neurologists, and stroke physicians should work collaboratively to minimise treatment delays.

• This group was unable to reach a consensus about the utility of stroke thrombolysis between 3–4.5 hours of symptom onset.

• Inpatient stroke team pre-notification of a potential thrombolysis patient’s arrival is encouraged to facilitate rapid patient assessment and to assist with potential resource constraints in emergency departments.

• Appropriate infrastructure should be present including timely access to neuroimaging (CT scanning) and timely interpretation of these scans prior to thrombolysis by consultant radiologists, neurologists, or stroke physicians/delegated radiology registrars with appropriate expertise and training.

• Informed consent for thrombolysis should be discussed and obtained by a medical specialist or delegated registrar with appropriate expertise and training in stroke assessment/management and with a sound knowledge of the benefits and harms of stroke thrombolysis.

• There should be appropriate care and documentation of progress after thrombolysis including recording of vital signs and neurological observations according to agreed protocols.

• Patients should be expeditiously transferred to a designated intensive monitoring ward area or Stroke Unit (ideally immediately following neuroimaging prior to or immediately after administration of thrombolysis).

• Services who provide thrombolysis should audit their service regularly to monitor safety and measure outcomes. Audit results should be reported routinely to local clinicians and regional stroke networks. Ideally a national database should be established to audit all stroke patients, including individuals treated with thrombolysis, to measure outcomes, with the results made available to all clinicians involved in the care of stroke patients.

• The ongoing appropriate use of thrombolysis in stroke should be reconsidered as the results of audits, or further research, become available.

This group will continue to collaborate to improve stroke care for patients in New Zealand.

**Combined Stroke Thrombolysis Consensus Group Members:**

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