



The Royal College of Emergency Medicine

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Acute Ischaemic Stroke and Intravenous Thrombolysis A position statement

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The Royal College of Emergency Medicine recognises that there is controversy and some scientific concern about whether to provide thrombolysis for patients who have suffered an acute ischaemic stroke. The College also recognises that there are few conditions as devastating as a stroke and that great progress has been made in improving mortality in recent years by centralising care and expertise.

Stroke thrombolysis is only one small aspect of stroke care and the College supports collaborative multi-disciplinary working with specialist stroke teams whether within individual hospitals or as part of a wider regional network.

With the National Institute for Health Care Excellence¹ guidance and the Cochrane review² there is support for clinicians who wish to use intravenous thrombolysis in the treatment of appropriately selected patients who have suffered an acute ischaemic stroke. The College recognises that, in some circumstances, emergency medicine doctors, by virtue of their training and familiarity with thrombolysis are uniquely placed to deliver this time critical therapy. It also recognises that stroke thrombolysis is not part of the 'core' work of the emergency department and that individual clinicians may have concerns regarding the interpretation of the scientific literature on stroke thrombolysis.

The College supports robust governance procedures, but does not support the translation of elements of these into arbitrary performance targets or commissioning targets (for example, regarding the number of patients actually thrombolysed). This is a concern that this may create perverse incentives within stroke care, or be prey to the Goodhart principle.

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The College recommends that where emergency medicine doctors are part of a team responsible for stroke thrombolysis decision making that they have undertaken appropriate training in the assessment of stroke patients as well as the delivery of the thrombolytic agent, management of any complications of stroke (and stroke therapy) and that they are part of a clinical governance structure (including regular clinical audit of patient outcomes and clear protocols in place for patient management).

The decision regarding stroke thrombolysis should be taken in conjunction with the patient, where possible, ensuring she/he is aware of both the benefits and potential harms of the therapy. In discussions with patients or their relatives it should be remembered that whilst alteplase significantly improves the outcome in stroke when delivered in a timely fashion it is also responsible for an increase in fatal intracranial bleeds in the first few days following thrombolysis. The recent MHRA Expert Working Group of the Commission on Human Medicines on alteplase⁴ in acute ischaemic stroke stated a positive benefit/risk ratio exists (as stated below). This statement provides useful information to convey the risks and benefits to a patient while consenting a patient for thrombolysis:

'for every 100 patients treated with alteplase, while there is an early risk [in the first two days] of a fatal bleed in two patients, after three to six months, around ten more patients in every 100 are disability free when treated within 3.0 hours; in addition, five more patients in every 100 are disability free when treated between 3.0 hours and 4.5 hours after a stroke compared to those not treated with alteplase.'

Where an integrated stroke thrombolysis service exists the College would encourage ED staff to involve other departments in coming to an agreement as to the wording of the consent process and the careful selection of those patients deemed less likely to suffer potential harm from this intervention. The College supports all patients with acute ischaemic stroke being considered for eligibility for thrombolytic therapy in acute ischaemic stroke.

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