



The University of Edinburgh

News Release

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Clot-buster trial reveals long-term benefits for stroke patients

Patients given a clot-busting drug within six hours of a stroke are more likely to have a long-lasting recovery than those who do not receive the treatment, new research has found.

A study of more than 3000 patients reviewed the effects of the drug rt-PA, which is given intravenously to patients who have suffered an ischaemic stroke.

The international trial, led by the University of Edinburgh, found that 18 months after being treated with the drug, more stroke survivors were able to look after themselves.

Patients who received rt-PA had fewer long-term problems with self-care and mobility, and experienced less pain and discomfort than those who did not.

Treatment also reduced the number of patients who needed help from other people from 51 per cent to 43 per cent.

An ischaemic stroke happens when the brain's blood supply is interrupted by a blood clot. The damage caused can be permanent or fatal. Stroke symptoms include paralysis down one side and speech problems.

The study, published in *The Lancet Neurology*, builds on the world's largest ever trial of the drug, which was published last year. It found that treatment with rt-PA improved health for stroke survivors up to six months following an ischaemic stroke.

This latest results from the trial show the quality of life of stroke patients 18 months after receiving rt-PA. It involved stroke patients in 12 countries between 2000 and 2011 – half of whom were treated with intravenous rt-PA and half of whom were not.

Researchers found that for every 1000 patients given rt-PA within six hours of stroke, by 18 months, 36 more will not need help from others than if they had not been given the drug.

The benefits of using rt-PA do come at a price, say researchers. Patients are at risk of death within seven days of treatment because the drug can cause a secondary bleed in the brain.

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Stroke experts stress that these mortality figures need to be taken in context of deaths from stroke. Without treatment, one third of people who suffer a stroke die, with another third left permanently dependent and disabled.

Researchers say that because of the threat of death and disability, many stroke patients are prepared to take the early risks of being treated with rt-PA to avoid being disabled.

About half of those who took part in the trial were aged over 80.

Chief investigator Professor Peter Sandercock of the University of Edinburgh's Centre for Clinical Brain Sciences said: "The trial team is delighted that, even for the elderly, rt-PA significantly improves life after stroke in the longer-term. Our results underline the benefits of treating patients with the drug as soon as possible and justify extending treatment to those aged 80 and over. We hope that these new data will encourage wider use".

The multi-centre, randomised trial was supported by the University of Edinburgh, the Stroke Association UK, the Medical Research Council, the Health Foundation UK, NIHR Stroke Research Network and NHS Lothian Health Board.

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