

World's biggest stroke clot-buster trial reveals patient benefits

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(Medical Xpress) -- Patients given a clot-busting drug within six hours of a stroke are more likely to make a better recovery than those who do not receive the treatment, new research has found.

The trial was set up in 2000 by the University of Sydney's Professor Richard Lindley, while he was employed at the University of Edinburgh.

The study of more than 3000 patients is the world's largest trial of the [drug](#) rt-PA and was coordinated at the University of Edinburgh. Since coming to Sydney Medical School in 2003, Professor Lindley has continued as the co-principal investigator of the research.

The findings of the study are published today in *The [Lancet](#)*, alongside an analysis of all other trials of the drug carried out in the past 20 years.

The trial found that following [treatment](#) with the drug rt-PA, which is given intravenously to patients who have suffered an acute ischaemic [stroke](#), more patients were able to look after themselves.

"The trial results, together with the updated review, mean that rt-PA can now be offered to a much wider group of patients presenting with stroke", Professor Lindley said.

A patient's chances of making a complete recovery within six months of a stroke were also increased.

An ischaemic stroke happens when the brain's [blood supply](#) is interrupted by a blood clot. The damage caused can be permanent or fatal.

Researchers now know that for every 1000 patients given rt-PA within three hours of stroke, 80 more will survive and live without 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](#). The research team concluded that the benefits were seen in a wide variety of patients, despite the risks.

Stroke experts stress that these mortality figures need to be viewed in the 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 the threat of death and disability means many stroke patients are prepared to take the early risks of being treated with rt-PA to avoid being disabled.

The authors conclude that for those who do not experience bleeding, the drug improves patients' longer term recovery.

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

"The trial underlines the benefits of treating patients with the drug as soon as possible and provides the first reliable evidence that treatment is effective for those aged 80 and over," Professor Lindley said.

The study also found no reason to restrict use of rt-PA - also known as alteplase - on the basis of how severe a patient's stroke has been.

Chief investigator Professor Peter Sandercock of the University of Edinburgh's Centre for Clinical Brain Sciences said: "Our trial shows that it is crucial that treatment is given as fast as possible to all suitable [patients](#)."

More information: [www.thelancet.com/journals/lan ... \(12\)60768-5/abstract](http://www.thelancet.com/journals/lan... (12)60768-5/abstract)

Provided by University of Sydney

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