**Controversial stroke drug could save lives**

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The safety of a controversial clot-busting drug has been investigated by researchers, who have shown a modified dosage could improve survival rates.

It is hoped the findings from the trial of more than 3,000 patients in 100 hospitals worldwide could change the way the most common form of stroke is treated globally.

Intravenous rtPA (or alteplase) is given to people suffering acute ischaemic stroke and works by breaking up clots blocking the flow of blood to the brain.

However, it can cause serious bleeding in the brain in around five per cent of cases, with many of these proving fatal.

National Coordinator of the study in the United Kingdom, [**Professor Tom Robinson**](http://www2.le.ac.uk/departments/cardiovascular-sciences/people/robinson)of the University of Leicester and Leicester Cardiovascular Biomedical Research Unit, said: “The results of this trial provide important information when discussing clot-busting treatment with patients and their families.

“Most patients who have a major stroke want to know they will survive but without being seriously dependent on their family. We have shown this to be the case with the lower dose of the drug.

“Stroke is the third leading cause of death in the UK and the leading cause of adult neurological disability; affecting up to 150,000 people per annum in the UK, one in four of whom are of working age.

“Currently, approximately 11 per cent of stroke patients receive thrombolysis treatment for stroke in the UK.”

Professor Craig Anderson, Lead Author of the study published in The New England Journal of Medicine, said: “At the moment you could have a stroke but end up dying from a bleed in the brain. It’s largely unpredictable as to who will respond and who is at risk with rtPA.

“What we have shown is that if we reduce the dose level, we maintain most of the clot busting benefits of the higher dose but with significantly less major bleeds and improved survival rates. On a global scale, this approach could save the lives of many tens of thousands of people.

“There is a trade off with the lower dose in regards to recovery of functioning, but being alive is surely preferable to most patients than suffering an early death.”

These differing effects meant that the trial was unable to show conclusively that the low dose was as effective as standard dose rtPA in terms of survivors being free of any disability.

rtPA is used to dissolve clots that block a blood vessel in a patient’s brain within the first few hours after the onset of stroke symptoms.

Yet, because many people with stroke arrive at hospital after this crucial time window, only around five per cent of eligible people currently receive this therapy in most countries.

Concerns over the risks of bleeding on the brain associated with rtPA have prompted independent reviews of the research evidence in Australia and the UK.