

# INTERACT - Intensive Blood Pressure Reduction in Acute Cerebral Haemorrhage

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The  
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## Facts

- Stroke is the leading cause of death in China.
- Intracerebral haemorrhage (ICH), spontaneous bleeding within the brain, most often due to hypertension, affects one million people globally each year, many of whom live in Asia, kills 30 – 60% of sufferers and leaves 50% of survivors disabled.
- ICH is the most severe form of stroke, having the lowest chances of survival and causing many patients to be permanently disabled. In China, ICH accounts for 10-40% of all strokes (varied by region). In non-Asian countries, ICH accounts for 10-15% of all strokes.
- There was previously no routine immediate treatment for ICH that has been proven to improve outcomes. Risky surgical treatment was sometimes used to reduce pressure in the brain, however this is controversial.

## Partners:

*Unité de Recherche Clinique, APHP -  
Hôpital Lariboisière*

*Clínica Alemana, Universidad del  
Desarrollo*

*Department of Cardiovascular Sciences,  
University of Leicester*

*Peking University, China*

## Supporters:

*National Health and Medical Research  
Council, Australia*

*The George Institute  
University of Sydney*

## Contact

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## Background:

- Despite the magnitude and cost of bleeding within the brain to the healthcare system, the role of surgery is uncertain and no acute medical therapies have been shown to definitely alter outcome in ICH.
- Though there is much evidence to show that lowering blood pressure (BP) reduces the risk of stroke, the effect of BP lowering treatment in the early stages (within the first six hours) of ICH remains unknown.

## Aims:

- The INTERACT trials were designed to establish the effects of early intensive BP lowering on death and disability in patients with acute ICH and co-existing elevated BP, compared to standard conservative BP management that is commonly used.

## Methods:

- Phase 1 of the research program's (INTERACT1) the pilot phase, involving 404 patients in China, Korea and Australia with acute ICH showed that intensive blood pressure lowering was clinically feasible, well tolerated and appeared to reduce haematoma growth compared to standard management.
- Phase 2 (INTERACT2) was done in 2839 participants from 21 countries worldwide including China, and has resolved a major uncertainty for medical practitioners. The study challenges previous thinking about early blood pressure lowering in intracerebral haemorrhage and the study findings will mean significant changes to guidelines for stroke management worldwide ([www.interact2.org](http://www.interact2.org)).

## Impact:

- INTERACT2 results were announced at the European Stroke Conference in May 2013 and were also published in the *New England Journal of Medicine*, one of the most influential medical journals in the world.
- INTERACT2 is a landmark study that has resolved much of the uncertainty over the management of blood pressure in intracerebral haemorrhage.
- In particular, the study showed that compared to the recommended level of blood-pressure lowering, early intensive treatment was safe, reduced the risk of major disability and improved chances of recovery by as much as 20%.
- The study is leading to revisions of guidelines around the world and changes in clinical practice towards a more active approach.

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