

## **Imperial College London News Release**

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### **Trial stops after stroke and mortality significantly reduced by blood pressure-lowering treatment for those aged 80 and over**

An international trial looking at the benefits of giving blood-pressure lowering medication to elderly patients has stopped early, after researchers observed significant reductions in overall mortality in those receiving treatment.

The 3,845 patient Hypertension in the Very Elderly Trial (HYVET) is the largest ever clinical trial to look at the effects of lowering blood pressure solely in those aged 80 and over. Preliminary results of the trial, which is coordinated by scientists from Imperial College London, suggest that lowering blood pressure significantly reduces both stroke and mortality in the over-80s.

A number of earlier trials had demonstrated that reducing blood pressure in the under-80s reduces stroke and cardiovascular events. However, previous smaller and inconclusive studies also suggested that whilst lowering blood pressure in those aged 80 or over reduced the number of strokes, it did not reduce, and even increased, total mortality.

Patients with high blood pressure from across the world were randomised for the double-blind, placebo-controlled trial, which began in 2001. Patients were given either the placebo or a low dose diuretic (indapamide 1.5mg SR), and an additional ACE inhibitor (perindopril), in tablet form once a day.

Emeritus Professor Chris Bulpitt, HYVET Principal Investigator from the Care of the Elderly Department at Imperial College London, said: "It was not clear prior to our study whether the over-80s would benefit from blood pressure lowering medication in the same way as younger people.

Our results are great news for people in this age group because they suggest that where they have high blood pressure, such treatment can cut their chances of dying as well as stroke."

The Steering Committee of HYVET accepted on 12th July 2007 the recommendation of its Data Safety Monitoring Board that the trial should be stopped.

Definitive figures will not be available until all the data has been collected. Results will then be published in the peer reviewed scientific press.

Over the next few months all HYVET patients will be seen for a final visit, where all patients on trial medication will be offered the option of switching to active indapamide 1.5 mg SR based antihypertensive treatment. Prior to their final visit, all patients are advised to stay on their existing drugs until they see their trial physician.

HYVET was co-ordinated by scientists from Imperial College London, working with colleagues around the world. The main trial was funded by both the British Heart Foundation and by the Institut de Recherches Internationales Servier.

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For further information please contact:

Laura Gallagher  
Senior Press Officer  
Imperial College London  
e-mail: L.Gallagher@imperial.ac.uk  
Telephone: +44 (0)207 594 6702 or ext. 46702  
Out of hours duty press officer: +44 (0)7803 886 248

Notes to editors:

1. About stroke and high blood pressure

\* Stroke is the third most common cause of death in the England and Wales. In 2004, 11% of deaths amongst those aged 75-84, and 14% of deaths amongst those aged over 85 were due to stroke, according to the Office of National Statistics.

\* In the UK about 150,000 people suffer a stroke each year, the equivalent of 1 every 4 minutes.

\* About one third of stroke patients die within 6 months of the event, the majority occurring in the first month.

\* Disability after stroke is the most important single cause of severe disability of people living in their own homes.

\* There are 2 types of stroke:

a. Haemorrhagic - caused by blood leaking into brain tissue from a blood vessel within the brain

b. Ischemic - caused by a clot occluding a blood vessel, resulting in loss of blood supply to a part of the brain and subsequent damage to brain tissue.

High blood pressure increases the chance of both a blood vessel leaking or rupturing, and of a clot forming within a blood vessel. High blood pressure increases the likelihood of damage to the lining of the blood vessel, which in turn leads to an increased chance of spontaneous clot formation within the blood vessel.

\* The over 80s are the fastest growing group in the population worldwide - in the UK currently they account for 4% of the total population and this is expected to rise to over 11% by 2050.

\* The risk of stroke increases with age, with some estimates suggesting that the risk doubles every decade after a person reaches 55 years of age

\* In the UK approximately 4% of the total National Health Service budget is spent on stroke services each year.

2. About Imperial College London

Rated as the world's ninth best university in the 2006 Times Higher Education Supplement University Rankings, Imperial College London is a science-based institution with a reputation for excellence in teaching and research that attracts 11,500 students and 6,000 staff of the highest international quality.

Innovative research at the College explores the interface between science, medicine, engineering and management and delivers practical solutions that improve quality of life and the environment – underpinned by a dynamic enterprise culture.

With 66 Fellows of the Royal Society among our current academic staff and distinguished past members of the College including 14 Nobel Laureates and two Fields Medallists, Imperial's contribution to society has been immense. Inventions and innovations include the discovery of penicillin, the development of holography and the foundations of fibre optics. This commitment to the application of our research for the benefit of all continues today with current focuses including interdisciplinary collaborations to tackle climate change and mathematical modelling to predict and control the spread of infectious diseases.

The College's 100 years of living science will be celebrated throughout 2007 with a range of events to mark the Centenary of the signing of Imperial's founding charter on 8 July 1907.

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