

Medical practice on blood pressure challenged in study

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New research shows that starting treatment of blood pressure with two medicines rather than the one produces better and faster results and fewer side effects. The findings could change clinical practice world-wide.

The study, published in the [Lancet](#) today, challenges popular medical practice for the treatment of high [blood pressure](#). The research was led by Cambridge in collaboration with Glasgow, the University of Dundee and the British Hypertension Society.

Doctors usually start treatment with one medicine and then add others over a period of months, if needed, to control blood pressure. This study shows that it is best to start treatment with two medicines together at the same time - resulting in much faster and better control of blood pressure and surprisingly fewer [side effects](#) than with one medicine alone.

The two medicines can be incorporated into a single pill, simplifying things for patients who will still only have to take one pill. But by including two medicines in the same pill, they are taking a much more effective medicine with fewer side effects.

Professor Morris Brown, of the University of Cambridge and Addenbrooke's Hospital, said, "The ACCELERATE study breaks the mould for treating hypertension. Most patients can now be prescribed a single combination pill and know that they are optimally protected from strokes and heart attacks."

Currently there are almost 10 million people in the UK with high blood pressure and effective treatment is known to substantially reduce the risk of stroke and heart disease.

Gordon McInnes, Professor of Clinical Pharmacology at Glasgow, added: “The results of this trial are of huge importance to doctors and people treated for high blood pressure. Future treatment will be more effective and, since fewer side effects will lead to better acceptance of therapy, many fewer heart attacks and strokes are likely.”

The ‘ACCELERATE’ study of 1250 patients with hypertension shows that a new accelerated treatment programme lowers blood pressure faster, more effectively, and with fewer side effects than conventional treatment.

ACCELERATE shows that patients who start treatment with a single tablet containing a combination of drugs will have a 25% better response during the first six months of treatment than patients receiving conventional treatment, and – remarkably – are less likely to stop treatment because of side effects. Still more remarkably, the blood pressure in the conventional treatment arm never caught up with the new treatment arm, even when all the patients in the study were being treated with the same combination of drugs.

The authors suspected that conventional treatment allows the body to partially neutralise each drug, and ACCELERATE was designed to show that the new treatment programme prevents this neutralisation from happening.

ACCELERATE was designed by The British Hypertension Society, who entered a unique partnership with Novartis in order for the treatment programme to be simultaneously tested in ten countries on four continents.

Currently, patients with hypertension take many months to have their blood pressure lowered, following guidance to start with a low-dose of one tablet, and gradually increase the dose and number of drugs. This traditional ‘start low, go-slow’ policy is encouraged in order to avoid side effects, but has been shown to delay the protection from strokes which is the main reason for treating hypertension. In the longer-term, patients are also less likely to take their medication if multiple tablets are required.

Professor Graham MacGregor, Chairman of UK charity the Blood Pressure Association, said: “High blood pressure is a major cause of stroke and heart disease, so we welcome new research which could lead to improved control of the condition. Many people being treated for [high blood pressure](#) need to take more than one medicine, so a combination medicine like this offers the opportunity to take one tablet instead of two, and may be more cost effective for those paying prescription charges.”

Funded by the British Heart Foundation, the British [Hypertension Society](#) Research Network is now doing a similar study with different medicines to be sure these results are generalizable.

More information: “Aliskiren and the calcium channel blocker amlodipine combination as an initial treatment strategy for hypertension control (ACCELERATE): A randomized, parallel-group trial” will be published in the *Lancet* on 13 January.

Provided by University of Glasgow

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