

Birmingham trial demonstrates benefits of self-management for high blood pressure

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People with hypertension who self-test at home and adjust their medication accordingly are more likely to see their blood pressure drop than people receiving standard care, according to new research from the University of Birmingham.

Results from the Telemonitoring And Self-Management of Hypertension (TASMINH2) clinical trial, funded by the Department of Health, are published today online in *The Lancet*.

The results showed that after 12 months mean systolic pressure decreased by 17.6 mm Hg in the self-management group and by 12.2 mm Hg in the control group. This reduction of 5.4 mm Hg systolic blood pressure is equivalent to a cut in risk of stroke of more than a fifth and in coronary heart disease of more than ten per cent.

Raised blood pressure is a key risk factor for heart disease, the largest cause of morbidity and mortality worldwide, yet only about half of patients receiving treatment find their blood pressure is controlled, despite lifestyle changes and medical intervention.



Researchers carried out a clinical trial involving 527 patients at 24 general practices

Richard McManus, Professor of Primary Care Cardiovascular Disease "There is a potentially important role for novel interventions to lower blood pressure, especially in primary care, where management of hypertension mainly takes place. One such approach is self-management."

Researchers from the University's Primary Care Clinical Sciences carried out a randomised controlled clinical trial involving 527 patients at 24 general practices throughout the UK from 2007-9.

Participants in the intervention group were trained in how to use an automated blood pressure monitor and shown how to send readings to the trials team via a telephone modem. They carried out two self-measurements at five-minute intervals in the morning and the readings were assessed according to targets and were colour-coded green, amber and red. Patients showing above-target readings on four or more days over two consecutive months made pre-agreed adjustments to their drug treatment.

At the end of the trial, patients who self-managed had significantly lower blood pressure than those who received usual care.

Professor McManus says: 'This is the first time this system has been tried on a large scale worldwide and the results are very positive. Self-management of hypertension resulted in significant and worthwhile reductions in blood pressure that were maintained at six months and 12 months compared with usual care.'

'These findings seem to be the result of an increase in the number of antihypertensive drugs prescribed according to a simple titration (drug delivery) plan. Thus, self-management represents an important new addition to the control of hypertension in primary care.'

'Self-management is not suitable for all patients. But even if only 20 per cent of individuals with hypertension self-managed their disorder, this proportion would still represent more than two million people in the UK'