



## Self-Management Can Improve Blood Pressure



According to a new study published in JAMA, a program comprised of patients measuring their blood pressure and adjusting their antihypertensive medication resulted in lower systolic blood pressure at twelve months as compared to those who received the usual care. The patients included in the program were those suffering from hypertension and at high risk of cardiovascular disease.

It is a fact that despite significant improvement over the last decades, there are still a large number of patients who have poor control of their elevated blood pressure. While self-monitoring of blood pressure and self-titrating of antihypertensive medications can result in lower blood pressure in patients with hypertension, there is very little data available about high-risk patients.

The study was led by Richard J. McManus, F.R.C.G.P. of the University of Oxford and his colleagues. 552 patients with hypertension, a history of stroke, coronary heart disease, diabetes, or chronic kidney disease were randomly assigned to one group who would self-monitor their blood pressure and self-titrate their antihypertensive medication on the basis of an individualized self-titration algorithm, or a control group where patients would receive the usual care consisting of routine blood pressure measurements and medication adjustments by their healthcare clinician.

Patients were evaluated after twelve months. The results showed that while the average systolic blood pressure decreased in both groups, it was lower in the intervention group (128.2/73.8 mm Hg vs 137.8/76.3 mm Hg). The reduction in diastolic blood pressure was also better in the self-monitoring group. There were no excessive adverse effects in either group.

According to the authors of the study, "This trial has shown for the first time, to our knowledge, that a group of high-risk individuals, with hypertension and significant cardiovascular comorbidity, are able to self-monitor and self-titrate antihypertensive treatment following a prespecified algorithm developed with their family physician and that in doing so, they achieved a clinically significant reduction in systolic and diastolic blood pressure without an increase in adverse events. This is a population with the most to gain in terms of reducing future cardiovascular events from optimized blood pressure control."

While this study does not settle the question regarding self-titration, it does highlight the need for future trials that would study the effects of self-titration on cardiovascular events. The findings from this particular study clearly show that a "bring it home" blood pressure monitoring study is suitable for patients with hypertension and comorbidities.

It is important to educate patients about self-measurement and to also focus on self-titration. Considering the

fact that several antihypertensive drugs are now available as generic drugs, it makes sense to design optimal individualised care for high-risk hypertensive patients.

Source: JAMA

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