

The Effect of Educational Reminders on Blood Pressure in Veterans with Hypertension

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The full report is titled “Improving Blood Pressure Control through Provider Education, Provider Alerts, and Patient Education. A Cluster Randomized Trial.” It is in the 1 August 2006 issue of *Annals of Internal Medicine* (volume 145, pages 165-175). The authors are C.L. Roumie, T.A. Elasy, R. Greevy, M.R. Griffin, X. Liu, W.J. Stone, K.A. Wallston, R.S. Dittus, V. Alvarez, J. Cobb, and T. Speroff.

What is the problem and what is known about it so far?

High blood pressure (hypertension) damages blood vessels and body organs. It increases the risk for many diseases, including heart attack, stroke, and kidney failure. Despite the widespread availability of effective treatments for hypertension, many patients with hypertension are not adequately treated.

Why did the researchers do this particular study?

To see whether educational reminders emphasizing adequate treatment of hypertension could lower blood pressure in patients with hypertension. They also wanted to assess the effects of reminders directed at health care providers compared with those directed at patients.

Who was studied?

182 health care providers and 1341 patients they took care of. All of the patients were taking a single blood pressure-lowering drug, and all were seen at Veterans Affairs facilities in Tennessee.

How was the study done?

The researchers sent providers an e-mail with an electronic link to standard guidelines for treating high blood pressure. The researchers then randomly assigned each provider to 1 of 3 groups. Providers in the first group were only sent the e-mail. Providers in the second group encountered patient alerts each time they signed on to a hospital or clinic computer. The alerts reminded the providers of ideal blood pressure levels and their patients' last 3 blood pressure measurements. Providers in the third group encountered the same alerts as those in the second group. In addition, the researchers sent a letter to the patients cared for by those providers. The letter provided basic information about hypertension, including what patients could do to lower blood pressure through changes in lifestyle. After about 6 months, the researchers compared the blood pressures of patients in each group.

What did the researchers find?

The average blood pressure of patients in the third group was lower than that of patients in the other groups, and more of those patients had normal blood pressure. New use of a water pill seemed to improve blood pressure compared with other drugs, but patients in the 3 groups were equally likely to be given water pills by their doctors, so the difference did not affect the blood pressure results in this subgroup of patients.

What are the limitations of the study?

The study was conducted in a Veterans Affairs health system. The findings therefore might not apply to other health care settings. Although the researchers found a difference in blood pressure among patients in the 3 groups, they could not find a reason for the difference.

What are the implications of the study?

Educational reminders directed at providers and patients can lower blood pressure in patients with hypertension. Reminders directed at both providers and patients may be more effective than those directed at providers alone.

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