



Drug Monitor

ONLINE EDITION

Multifactorial Intervention to Improve BP Medication Adherence Has Mixed Results

A multicomponent, low-intensity intervention to improve adherence to blood pressure (BP) medicine was effective: Patients stuck to their regimen better and improved their BP. However, was the BP improved because of the better adherence? The researchers in a multicenter trial did not observe a direct association. Moreover, the intervention did not appear to improve cardiovascular events over the long term.

The controlled, cluster-randomized study involved 79 physicians from hospital-based hypertension clinics and primary care practices across Spain and 875 of their patients determined to be high risk for cardiovascular events (age ≥ 50 years, uncontrolled hypertension, and estimated 10-year cardiovascular risk

$> 50\%$). For the intervention group, for a period of 6 months, physicians counted patients' pills, designated a family member to support medication adherence, and provided educational information to patients. Patients were followed for a mean of 39 months, with BP at 6 months a primary outcome and medication adherence and a composite endpoint of all-cause mortality and cardiovascular-related hospitalizations secondary outcomes.

Patients in the intervention group were more adherent, because they took their correct dose on a greater proportion of days than did the control patients (92% vs 89%, respectively; $P = .002$). At 6 months follow-up, intervention patients had significantly lower mean systolic and diastolic BP than the control patients (148.9 mmHg and 81.9 mm Hg vs 151.1 mm Hg and 83.0 mm Hg, respectively). The intervention patients also were less likely to have an uncontrolled systolic BP (defined as ≥ 140 mm Hg).

After 5 years of follow-up, 153 patients had at least 1 cardiovascular event (67 [16%] in the intervention group and 86 [19%] in the control group). Although intervention patients had fewer events, after adjusting for diastolic BP, age, sex, self-reported measures of adherence, and cardiovascular risk profile, the difference was not statistically significant.

The fact that adherence was close to 90% in both groups could suggest a Hawthorne effect, the researchers say. They conclude, however, that the differences found between the 2 groups were both clinically and statistically significant. Although a direct association between medication adherence and BP control was not observed, they surmise that because of the high level of adherence in both patient groups their study was unpowered to detect such an association. ●

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