

Self-Management of Hypertension Outperforms Usual Care

The intervention involved self-measured blood pressure readings and a predetermined drug-titration plan.

As many as half of patients who receive treatment for hypertension still have uncontrolled high blood pressure (BP).

Patient self-monitoring and self-titration of treatment are effective in anticoagulation control and management of diabetes and asthma but have not been well studied for hypertension management.

British investigators randomized 480 adults with uncontrolled hypertension (BP >140/90 mm Hg, despite treatment with one or two antihypertensive medications) to self-management or usual care. Patients in the self-management group measured their BPs with automated sphygmomanometers twice each morning for 1 week during each month; patients whose average BP was above target level (130/85 mm Hg, or 130/75 mm Hg for people with diabetes) for 2 consecutive months contacted their personal physicians for new prescriptions that were dispensed according to individually predetermined guideline-based titration algorithms. Patients' adherence to the protocol was observed by their personal physicians via telemonitoring. BP was measured at office visits at baseline and at 6 and 12 months. Mean office BP at baseline was 152/85 mm Hg in both groups. After 6 months, mean office BPs in the usual care and intervention groups were 143/80 mm Hg and 139/80 mm Hg, respectively; after 12 months, they were 140/80 mm Hg and 135/77 mm Hg, respectively. Between-group differences in mean systolic and diastolic BPs were significant at 12 months. Additional hypertensive medications were prescribed significantly more often for self-management patients than for control patients.

Comment: Socially challenged patients were underrepresented in this study and appeared to benefit less from the intervention, so the generalizability of these encouraging findings requires further exploration. Cost-effectiveness of the intervention will be reported separately.

— **Bruce Soloway, MD**

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