

Controlling Hypertension Requires a New Primary Care Model

David Margolius, BA, and Thomas Bodenheimer, MD

About 32 million Americans have uncontrolled hypertension, and the impending shortage of primary care physicians could result in worsening blood pressure control. The “Treat to Target” approach to hypertension in primary care has the potential to increase hypertension control while off-loading a portion of hypertension management from physicians to other team members. “Treat to Target” involves 3 components: home self-monitoring of blood pressure, regular health coaching for patients with elevated blood pressure, and home titration of blood pressure medications based on standing orders from the patient’s physician. To implement “Treat to Target” in primary care, public and private health insurance plans and primary care practices should receive payment for health coaching sessions that train patients to take their blood pressure, teach patients about hypertension and its medications, and assist patients by telephone in home titration. Reimbursing primary care practices that implement effective blood pressure programs and save physician time is a logical step to reducing long-term costs from stroke, heart attack, and kidney failure.

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Hypertension affects 65 million people in the United States. Of this group, 50% have achieved blood pressure control below 140/90 mm Hg, leaving more than 32 million Americans at risk for the serious consequences of uncontrolled hypertension.¹ Because controlling hypertension could avoid an estimated 46,000 deaths per year among persons younger than age 80 years, it is the single most effective clinical service for reducing mortality.² With such high incidence of poor blood pressure control, the need to transform hypertension management is pressing.

Because 79% of physician visits for hypertension take place in primary care, the failure of blood pressure control is a failure of primary care. Given the growing shortage of primary care physicians, one might expect blood pressure control to worsen in the near future. Primary care needs a new approach to hypertension management that asks less of overburdened physicians while improving outcomes. We describe a strategy that may accomplish both goals.

Hypertensive patients can achieve normal blood pressure through an approach called “Treat to Target,” which melds 3 complementary components. First, patients with high blood pressure are given a home blood pressure monitor and encouraged to enter their home recordings into a log book. Second, patients receive regular phone calls from a nonphysician team member who reinforces blood pressure goals and provides coaching on diet, exercise, and medication adherence. These team members—also referred to as health coaches—may be registered nurses, pharmacists, medical assistants, or other nonclinicians trained in behavior-change counseling. Third, using physician-approved treatment protocols or standing orders, patients and health coaches can jointly decide by telephone to intensify antihypertensive medications. The process of coach-assisted home titration should reduce the need for physician visits. If medication doses are changed, the health coach notifies the physician.

Examples of successful blood pressure treatment strategies using the “Treat to Target” model have been described in the peer-reviewed literature. In a small study, 31 patients were randomly assigned to a patient-directed management group or usual care. In the patient-directed group, participants were trained in how to use a home blood pressure cuff. If home blood pressure readings were consistently elevated, enrollees could augment antihypertensive medications according to an algorithm developed for each

In this article
Take-Away Points / p649
www.ajmc.com
Full text and PDF

patient. After 8 weeks, patients in the intervention group had lower mean arterial blood pressures than the control group.³

In a second study without a control group, 111 patients were trained to take blood pressure measurements at home and to use a simple protocol for self-titration. The study found improved blood pressure control, no significant safety issues, and a high level of patient and physician satisfaction.⁴

Another study randomly assigned patients to usual care, home blood pressure monitoring, or home blood pressure monitoring plus home titration managed by pharmacists. In the home-titration arm, patients regularly sent blood pressure values to a pharmacist via the Internet; the pharmacist responded with specific recommendations including medication changes. After a 12-month intervention, 56% of patients interacting with pharmacists had blood pressure under 140/90 mm Hg compared with 36% of patients using home blood pressure cuffs and 31% of patients receiving usual care.⁵

In a larger trial, 527 patients with elevated blood pressure were randomly assigned to a self-monitoring and self-titration group or a control group. After 12 months, blood pressure in the self-titration group was lower than that in the control group; the difference was statistically significant. The patients in the intervention group and their family physicians agreed on the medication titration changes, with patients increasing their medications if their home blood pressure measurements remained high.⁶

An ongoing study involves health coaches without professional training assisting with hypertension management in primary care. Low-income and mostly minority patients with hypertension were randomly selected to receive home blood pressure monitoring, regular health coach phone calls, and home titration of antihypertensive medications or home monitoring and coaching without home titration.⁷ Early results show that of 179 patients with elevated blood pressure, 109 (61%) had a follow-up blood pressure below 140/90 mm Hg.

The 3 interrelated components of the “Treat to Target” model—home monitoring, coaching, and home titration—can revolutionize blood pressure treatment in primary care while off-loading tasks from an overworked, shrinking adult primary care physician workforce. This approach works because it addresses 4 factors that contribute to poor blood pressure control: poor understanding of physician instructions, lack of patient participation in decision making, low adherence, and “clinical inertia.”

Take-Away Points

Primary care practices can improve the management of hypertension, the single most effective clinical service for reducing mortality in the United States.

- Health plans can help by paying for patients' home blood pressure monitors and by paying primary care practices to provide health coaching.
- Blood pressure medications can be titrated at home based on standing orders from the patient's physician.
- The advantage for health plans is a reduction in the serious and costly complications of uncontrolled hypertension.

It's not surprising that we're failing in our efforts to help patients achieve blood pressure control when we consider our “success rates” in these 4 areas. First, 50% of patients leave the physician visit not understanding the physician's instructions. Second, although patients have better outcomes when they are actively engaged in their care, patients actively participate in decisions in only 9% of visits.⁸ Third, only one-third of people with chronic conditions have excellent medication adherence.⁹ Adherence rates among patients with hypertension vary depending on the measurement method used and are significantly lower for minorities; a clinic caring for vulnerable populations found only 36% good adherence among patients with hypertension.¹⁰ Lower adherence is associated with poor blood pressure control, disease progression, disability, and death.¹¹

Fourth, clinicians often fail to intensify medications during visits when blood pressure recordings are high. This phenomenon, called clinical inertia, often is related to competing priorities—visits in which too many agenda items must be addressed in the time available.¹² In one study, 83% of ambulatory visits in which hypertension patients had elevated blood pressure readings were associated with either poor adherence or the failure of clinicians to appropriately intensify medications.¹¹

“Treat to Target” addresses all 4 of these factors. Patients take their blood pressure at home and are actively engaged in their own care. Health coaches (registered nurses, pharmacists, or nonprofessional team members) spend time with patients—mainly over the phone—explaining hypertension and the medications used to treat it, and helping patients to problem-solve the numerous reasons for poor medication adherence. Home titration of medications, using physician-created algorithms and conducted by the patients themselves with the help of health coaching, can overcome clinical inertia and speed up the intensification of medications without placing added stress on primary care physicians.

To implement “Treat to Target” in primary care, several preconditions need to be met. Health insurance plans, including Medicare and Medicaid, should pay for home blood pressure monitors so that lower-income people are able to

obtain them. Primary care practices should receive payment for health coaching sessions that train patients to take their blood pressure, teach patients about hypertension and the medications used to treat it, and assist patients by telephone in home titration. Without these changes, practices are unlikely to adopt this innovation. Reimbursing primary care practices that implement effective blood pressure programs and save physician time is a logical step to reducing long-term costs from stroke, heart attack, and kidney failure.

Author Affiliations: From the Warren Alpert Medical School (DM), Brown University, Providence, RI; and the Department of Family and Community Medicine (TB), University of California at San Francisco, San Francisco, CA. Mr Margolius is a 4th year medical student at Brown University.

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Address correspondence to: Thomas Bodenheimer, MD, Department of Family and Community Medicine, University of California at San Francisco, 995 Potrero Ave, Bldg 80-83, San Francisco, CA 94110. E-mail: tbodenheimer@fcm.ucsf.edu.

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