Additional Benefits of Home Blood Pressure Monitors

To the Editor:

We read with interest the call to action on the use of home blood pressure (BP) monitors by Pickering et al1 in the July issue of Hypertension. This article mentioned numerous benefits of having BP monitors and advocated use in several special populations. We suggest adding 2 additional benefits, improved BP control and improved patient confidence in self-management, and 1 additional population, indigent individuals.

Possession and use of a home BP monitor has the potential to improve patient knowledge concerning BP control, enabling better decisions and promoting confidence in BP management. This is the basis of 2 ongoing projects, the Adherence and Blood Pressure Control Trial2 and the Take Control of your Blood Pressure Study.3 These studies are examining compliance and BP control benefits of interventions, including provision of a home monitor.

In a similar vein, we recently completed a 2-year pilot study examining the benefits of distributing home BP monitors to a poor inner-city population. A total of 63 patients enrolled in this Ohio State University Institutional Review Board–approved study of subjects with hypertension in 2 clinics run by the Columbus Neighborhood Health Centers. Subjects received information on hypertension control, were managed by their usual physicians, and were randomly assigned to receive a free home monitor, with instructions on its use, or usual care. Medication compliance and BP control were measured over 1 year, and 3 survey items on the patient’s beliefs in their ability to successfully manage BP were checked at the study’s beginning and end.

Systolic BP control improvement by study end was significantly ($P<0.05$) better in the monitor group (28 mm improvement versus 13 mm). The overall percentage of patients with improved (82 versus 65) or normalized (53 versus 30) systolic BP was also better in the group that received monitors. On 1 of the 3 survey questions, the group receiving monitors had a statistically significant improvement (0.67 points versus 0.17 points on a 5 point scale; $P<0.05$) on the question, “How sure are you that if you take your blood pressure medication regularly, your blood pressure will be controlled?”

This small study suggests that merely giving patients a home BP monitor, with no other intervention, can improve BP control and a patient’s belief in the ability to contribute to this control. These are crucial benefits that should be added to those discussed in the article by Pickering et al.1 These benefits may be even more important in the indigent, inner-city population of this study, a population known to have poor control and high complication rates of hypertension.4 Furthermore, if the magnitude of BP improvement (28 mm) in our study is reproducible, insurance or governmental programs to distribute monitors would likely yield a huge economic benefit in reduced cerebrovascular or cardiovascular disease, further evidence for the argument that such monitors should be reimbursed.

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None.

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