

Home telemonitoring by pharmacists helps control patients' blood pressure

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Patients receiving telemonitoring along with high blood pressure management support from a pharmacist were more likely to lower their blood pressure than those not receiving extra support, according to research presented at the American Heart Association's Quality of Care and Outcomes Research Scientific Sessions 2012.

"Patients with high blood pressure visit physicians an average of four times each year, yet blood pressure is controlled in only about half of U.S. patients," said Karen Margolis, M.D., M.P.H., the study's lead author and director of [clinical research](#) of HealthPartners Research Foundation in Bloomington, Minn. "We looked at how the addition of a pharmacist-led, at-home telemonitoring program might improve patients' [blood pressure control](#)."

Margolis and colleagues studied 450 patients with uncontrolled high blood pressure. Approximately half (222) of the patients were assigned to traditional care through their [primary care](#) providers. The other half (228 in the [intervention group](#)) saw a primary care provider and received additional high blood pressure management and telemonitoring support from a [pharmacist](#).

The intervention patients measured their blood pressure at home and sent the readings electronically to a secure website. Participating pharmacists accessed the information and consulted the patients every two to four weeks by phone.

All 450 patients came to a special research clinic to have their blood pressure measured at the beginning of the study, and 403 of them were seen again after six months, Margolis said.

The researchers found:

- Six months into the study, 45.2 percent of participants in the traditional care group and 71.8 percent in the telemonitoring intervention had reduced their blood pressure to healthy levels under 140/90 millimeters of mercury (mm Hg) in most patients, and under 130/80 mm Hg in those with diabetes or [kidney disease](#).
- Blood pressure decreased more in the telemonitoring group. At the start of the study, patients' blood pressures averaged 148/85 mm Hg. At six months, the average was 126/76 mm Hg in the telemonitoring intervention and 138/82 mm Hg in the traditional care group.
- Patients in the telemonitoring group received more high blood pressure medicines after six months than patients in the traditional care group.
- Patients in the telemonitoring group reported that they were better at remembering to take their medications consistently than those in the traditional care group.

"These early results suggest that home blood pressure telemonitoring with extra telephone care by a pharmacist was very effective in improving blood pressure control," Margolis said. "If these early results can be sustained over the long run, it might decrease the number of patients who suffer heart attacks, strokes or other complication of [high blood pressure](#)."

Margolis and colleagues are continuing to follow these patients to

determine the effects of the intervention for the longer term.

The study participants were health-conscious, so results might be different for a less motivated group, Margolis said.

Provided by American Heart Association

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