

# Study: Doctors not always sure when to treat BP in people with diabetes

**For people with diabetes, high blood pressure poses a special threat, multiplying their risk of heart attacks, strokes and kidney problems.**

But a new study finds that even when people with diabetes show up in their doctor's office with a high blood pressure reading, there's only a 50-50 chance that each of them will get some sort of attention for it. That might mean a change to their medications, or a plan to follow up a few weeks later to see if the reading is still high.

What happens the other 50 percent of the time? Something that others have termed "clinical inertia" takes over, say the University of Michigan Health System and VA Ann Arbor Healthcare System researchers who conducted the study, which is appearing in the May 20 issue of the *Annals of Internal Medicine*.

The fear is that this lack of response to high blood pressure readings at clinic visits could mean that patients' pressures will keep getting worse.

The study takes a look at possible causes of clinical inertia and finds little evidence supporting the idea that providers are just "ignoring" blood pressure problems.

What really seems to have an impact on treatment decisions is plain old uncertainty about whether the blood pressure is really elevated, or providers being occupied with other medical issues. Providers might need to spend the visit addressing more pressing problems, some of which, like pain, may be contributing to elevated blood pressures. Or, they might take another reading and conclude there's no need for action. Or, patients may report that their pressure readings at home have been fine.

More systematic guidelines for monitoring blood pressure in people with diabetes, and better guidance for when to change treatment when pressures get too high, are needed, say the researchers. They're led by Eve Kerr, M.D., MPH, and Timothy Hofer, M.D., M.S., of the Center for Clinical Management Research at the VA Ann Arbor Healthcare System and U-M Medical School's Division of General Medicine.

In the meantime, says Kerr, "While there are many guidelines about treating hypertension, there is an amazing lack of clarity and guidance about how many blood pressures should be taken at a clinic visit, whether those blood pressures should be averaged or whether just the lowest should be used, and how to incorporate home blood pressure readings in decisions to intensify medications. As long as this confusion exists, we may not make progress in treating hypertension."

The study was performed among 1,169 people with diabetes who were seen in VA primary care clinics over a one-year period, at nine different sites in three states.

All the patients had a blood pressure reading over 140/90 mm Hg at the start of their clinic visits. The national goal for people with diabetes is less than 130/80 mm Hg. (For people without diabetes or kidney problems, the goal is less than 140/90, which is considered the cutoff for Stage I hypertension.)

Of these patients, 573, or 49 percent, received a change in their blood pressure treatment at the same clinic visit – either a new prescription for a medication, a change in the dosage of an existing medication or medications, or a documented plan to follow up within four weeks. While this rate is higher than has been reported in other settings, there still appears to be room for improvement.

As part of the study, the researchers asked both patients and providers to complete brief questionnaires before the end of the day of the clinic visit. Most of the 92 providers who saw the patients were physicians, but they also included nurse practitioners and physician assistants. This prospective design allowed the researchers to look at all the different variables associated with providers' tendency to adjust blood pressure treatment in reaction to the high initial reading.

Their analysis revealed findings that have implications for how patients, and clinicians, measure and react to blood pressure in clinics. For instance, there was wide variation among clinics in the likelihood that providers would order a treatment change in patients with a reading over 140/90 mm Hg.

Uncertainty about what the patient's blood pressure was one of the largest factors. Providers variably repeated the blood pressure check once the patient was in the exam room, and not surprisingly were much less likely to change treatment if the new reading was lower than 140/90 mm Hg. Only 13 percent of such patients had a treatment change, compared with 61 percent of those with a high second reading, or who didn't get one.

"Providers clearly 'trust' their own reading more than they do the reading taken at the clinic intake point," suggests Hofer. "But there is no evidence that supports that approach. In fact, the literature suggests that provider measurements are less reliable and subject to large biases relative to independent measures by nurses using electronic blood pressure cuffs."

Additionally providers responded to their patient's own report about what kind of readings he or she was getting using a home blood pressure monitor. Only 18 percent of patients who told their providers their home measurements had been below 140/90 mm Hg received a treatment change, compared with 52 percent who said their pressures at home had been high, or who didn't report at-home monitoring.

While at-home monitoring can be important, Kerr says, the fact of the matter is that there is no standard for how often to monitor and how to record home pressure readings over time. Further, patients might preferentially report only the "normal" blood pressures and ignore the out-of-range values.

Patients should talk to their doctors about how often to monitor and record their blood pressure and look at averages over time, she says. If their average is above the target, it might be time to change treatment.

Finally, another major factor interfering with a patient's chances of getting a treatment adjustment turned out to be somewhat predictable: attention to other issues. If a patient's chief reason for coming to the clinic was unrelated to their diabetes or their blood pressure – for instance, if they were seeking treatment for pain – they were much less likely to receive attention for their blood pressure. The same was true for clinic visits where a patient's medications weren't discussed.

The team is continuing its study to see how long it takes for patients to get a treatment change. They hope their work will help guide further hypertension guidelines, and standardization of clinic practices. And that, they hope, will help millions of diabetes patients protect their long-term health.

Source: University of Michigan

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study, research, no part may be reproduced without the written permission. The content is provided for information purposes only.*