

Team Care Improves Hypertension Control

BY RICHARD M. KIRKNER

EXPERT ANALYSIS FROM THE ANNUAL MEETING OF THE AMERICAN SOCIETY OF HYPERTENSION

NEW YORK – When it comes to getting hypertensive patients to take their medications and to achieve improvements in their blood pressures, it takes a village – or at least a really motivated pharmacist, according to Barry Carter, Pharm.D.



“Team-based care interventions are one of the most potent strategies to achieve blood pressure control, even for those patients with difficult-to-control blood pressure,” said Dr. Carter, professor and associate head for research in the department of family medicine at the University of Iowa, Iowa City. “While improving adherence is one key reason for the success,” it’s also important to step-up the intensity of the medical management by increasing the number of patient encounters and the intensity of blood pressure monitoring. It’s “one of the most important strategies we’ve seen” to help overcome “clinical inertia.”

In a 2009 systematic review of controlled clinical trials, Dr. Carter and associates showed the potency of using pharmacists and nurses in hypertension management. In studies in which the pharmacist made recommendations to the physician, there was an average reduction of 9.3 mm Hg in systolic BP, compared with settings that did not use team-based care (Arch. Intern. Med. 2009;169:1748-55).

By comparison, in studies in which the nurse did the intervention, the reduction in systolic blood pressure was 4.8 mm Hg greater than in the non-team-based care. Both results were statistically significant, he said at the meeting. (See graph.)

Home-based blood pressure monitoring in other studies and systematic reviews showed an average blood pressure reduction of 2.4 mm Hg, according to Dr. Carter. “When added to team-based care, home-based blood pressure monitoring is much more effective than home monitoring alone,” he said.

Dr. Carter also commented on preliminary results from HINTS (Hypertension Intervention Nurse Telemedicine Study). This Veterans Affairs study involved four arms: a control group that received usual care, nurse-administered behavioral intervention, nurse-administered medication management, and a combination of the nurse-administered behavioral and medical management interventions.

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DR. CARTER

“The proportion achieving blood pressure control at 12 months started out around 59%, and in the intervention groups it was near 70%,” Dr. Carter said. But by 18 months, the between-group differences had tapered off (Am. Heart J. 2009;157:450-6). A limitation of the study is that about half the patients had uncontrolled blood pressure when they entered the trial. “There was a statistically significant improvement in the odds ratio of blood pressure being controlled with nurse management,” Dr. Carter added.

A 2008 study of 778 patients showed that adding Web-based pharmacist care to a protocol of home blood pressure monitoring and Web training significantly increased the percentage of patients with controlled blood pressure (JAMA 2008;299:2857-67).

At baseline, all patients had systolic BPs in the low 150-mm Hg range, he said. After 12 months, the usual-care arm had an average reduction in systolic blood pressure of 5 mm Hg, and the arm with home blood pressure monitoring and pa-

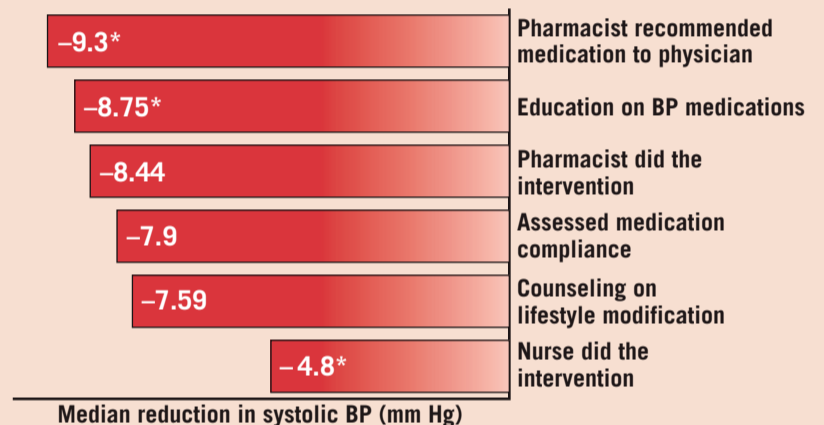
tient interaction via the Web showed an average reduction of 8 mm Hg. By contrast, the group that received home-based monitoring and Web-based assistance by the pharmacist had an average reduction in systolic blood pressure of 14 mm Hg, he said.

Reimbursement issues are among the most significant barriers to a team-based approach for hypertension management, Dr. Carter acknowledged. “The business model has really been a critical problem,” he said. “The reason the Kaiser-Permanentes, Group Health, and the VAs can do this is because they don’t operate on a fee-for-service model.” Although Medicare Part D allows for team-based management of hypertension, Medicare itself has not yet completed a relative-value unit for the service, he said.

Dr. Carter is currently leading the CAPTION (Collaboration Among Pharmacists and Physicians to Improve Outcomes Now) trial, the purpose of which is to determine if the face-to-face physician-pharmacist collaborative model will be adopted in typical practice settings, funded by the National Institutes of Health.

Dr. Carter had no relevant conflicts of interest. ■

Potency of Individual Components of Team-Based Care



*Statistically significant

Note: Based on a systematic review of 37 studies.

Source: Arch. Intern. Med. 2009;169:1748-55

ELSEVIER GLOBAL MEDICAL NEWS

Aortic Dissection: Tight BP Control Avoids Late Reoperation

BY BRUCE JANCIN

FROM THE ANNUAL MEETING OF THE AMERICAN SURGICAL ASSOCIATION

BOCA RATON, FLA. – Beta-blocker therapy and strict, lifelong control of hypertension are key to avoiding late reoperation after repair of acute type A aortic dissection, according to a large, 25-year, single-center follow-up study.

Operative mortality was 16% among 252 patients who underwent repair of acute type A aortic dissection at the hands of 26 surgeons at Barnes-Jewish Hospital in St. Louis during 1984-2009. Of 28 variables that were scrutinized in a multivariate analysis, only one proved to be an independent risk factor for operative mortality: branch vessel malperfusion at presentation, with an associated 2.5-fold increased risk, Dr. Spencer J. Melby reported at the meeting.

Some 27 of 211 operative survivors required 30 late reoperations. Four variables were independently predictive of late reoperation: male sex, Marfan syndrome, not being on a beta-blocker at last follow-up, and systolic blood pres-

VITALS

Major Finding: The rates of freedom from reoperation after aortic dissection repair among patients on beta-blocker therapy at 10 and 15 years were 86% and 83%, respectively, compared with 57% and 37% in patients not on the medication.

Data Source: A follow-up study of 252 patients who underwent repair of acute type A aortic dissection at a single center during 1984-2009.

Disclosures: Dr. Melby said that he has no relevant financial interests.

sure (SBP) greater than 120 mm Hg, according to Dr. Melby of Washington University in St. Louis.

The rates of freedom from reoperation among patients on beta-blocker therapy at 10 and 15 years were 86% and 83%, respectively, compared with 57% and 37% in patients who were not on the medication.

Patients who maintained their SBP below 120 mm Hg had 10- and 15-year rates of freedom from reoperation of 92%. In

those whose SBP was 120-140 mm Hg, the rates were 74% and 66%. In patients who maintained SBP above 140 mm Hg, the 10- and 15-year rates of freedom from reoperation were 49% and 30%.

In terms of perfusion techniques that were utilized in the initial repair, 35% of patients were placed on an aortic cross-clamp only, 30% had hypothermic cardiac arrest with retrograde cerebral perfusion, and 35% got hypothermic cardiac arrest without retrograde cerebral perfusion.

Importantly, long-term survival was not related to operative approach. Late survival was decreased, however, in patients with previous stroke or chronic renal insufficiency.

Discussant Dr. Thoralf M. Sundt III noted that although acute aortic dissection is an uncommon condition, it is nonetheless the most common fatal catastrophe of the aorta. Multiple studies over the years indicate that not much progress has been made in improving the high perioperative and long-term morbidity and mortality.

“We don’t seem to be learning very

much over time. It’s not getting better. So a study such as this one that can impact the long-term results in these patients is important,” said Dr. Sundt, chief of cardiac surgery at Massachusetts General Hospital, Boston.

He particularly welcomed Dr. Melby’s emphasis on lifelong beta-blocker therapy.

“It may seem a bit odd for surgeons to be focusing on pharmacologic treatment, but in fact aortic disease is really a disease that’s most often treated by surgeons. There are few medical vascular specialists, and so it really is important for us to follow these patients. This is a chronic condition, and we ought to adopt a posture towards that condition where we are responsible for caring for these patients over time,” according to the surgeon.

Dr. Melby added that “one of the conclusions of our paper is that because we found [that] long-term outcomes were independent of the technique, it’s safe to say that surgeons should treat this problem in the way they’re most comfortable.” ■