

## 2-drug blood pressure therapy lowers cardiovascular risk

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An international blood pressure study comparing two single-pill drug combinations has yielded results so significant that the study has been stopped early – and the researchers say their findings might alter the way high blood pressure is treated worldwide.

The randomized study showed that both drug combinations helped people who had high blood pressure and other cardiovascular risk factors get their BP down to recommended levels – despite the fact that two-thirds of them had been unable to achieve good BP control with other medications before they entered the study.

But even more important, the study revealed that the patients taking one of the combinations had 20 percent fewer heart-related events than the patients taking the other one. Those events included cardiovascular deaths, heart attacks, strokes, hospitalizations for unstable angina and treatments to re-open blocked heart arteries.

In all, 10,700 study participants took a single tablet that includes two medications. One group received a tablet containing benazepril, which is a type of drug called an ACE inhibitor, and amlodipine, which belongs to a class of drugs known as calcium channel blockers or CCBs. The other pill combined benazepril and hydrochloro-thiazide, a type of diuretic or “water pill.” The 20 percent reduction in cardiovascular events was observed with the ACE/CCB combination tablet.

Currently, national guidelines for the treatment of high blood pressure

(also called hypertension) call for patients who need medication to start out on a single pill, usually a diuretic, and to add other drugs only as needed to bring pressure down. But the new results, presented today at the American College of Cardiology Scientific Session in Chicago, may signal a need to change those guidelines.

“These results demonstrate the superiority of an ACE/CCB pill fixed-dose combination treatment strategy for reducing cardiovascular morbidity and mortality, and provides evidence that should modify future guidelines for the treatment of hypertension,” says Kenneth Jamerson, M.D., the leader of the study, which is called ACCOMPLISH. Jamerson is a professor of internal medicine at the University of Michigan Medical School and a member of the U-M Cardiovascular Center.

The study was funded by Novartis, which is among the companies that offer two-drug combination tablets for blood pressure treatment.

Millions of Americans take medications for hypertension but do not achieve control of their blood pressure. Single-tablet combinations of drugs are seen as easier for patients to take than multiple pills.

Results from the ACCOMPLISH trial show that just six months of treatment with either drug combination was enough to bring the blood pressure of 73 percent of patients into an acceptable range.

However, by the end of the trial blood pressure control rates were 80 percent, with mean systolic blood pressure less than 130 mmHg. This represents exceptional blood pressure control when contrasted to the current control rate of approximately 30 percent in the United States.

All patients in the study received no more than 40 milligrams of benazepril in each dose; amlodipine doses began at 5 mg and could be

increased to 10 mg, while hydrochlorothiazide doses began at 12.5 mg and could be increased to 25 mg.

Many studies have already shown that reducing blood pressure can reduce the risk of stroke, heart attack, heart failure and other conditions, but many people have a very difficult time achieving blood pressure control.

“These ACCOMPLISH results shake the foundations of current recommendations and define a new standard which will enhance the achievement of the primary goal and assist clinicians in meeting the daily challenges of hypertension management,” says ACCOMPLISH executive committee member Eric J. Velazquez, M.D., an Associate Professor of Medicine at Duke University Medical Center.

Currently, blood pressure treatment guidelines call for a single medicine to be tried first in people with Stage 1 hypertension -- those with the top, or systolic, reading over 140 and the bottom, or diastolic, reading over 90, but with readings less than 160 systolic and 100 diastolic.

As many as 73 million Americans have high blood pressure. But because high BP doesn't cause symptoms, most people who have it don't know they have it. Over time, uncontrolled blood pressure affects the blood vessel walls, encouraging the growth of weak spots called aneurysms and the formation of narrowed and inflamed areas that can lead to clots that can break off and cause heart attacks and strokes.

Fortunately, once the condition is diagnosed, doctors have a broad range of medicines to choose from to try to get it under control, including many inexpensive generic medicines.

But studies have found that patients often have trouble taking the multiple medications they need. As a result, many companies have

developed combination pills. The ACCOMPLISH data suggest these combination tablets have the potential to improve control rates to over 80 percent and importantly, that the combination of ACE and CCB reduced cardiovascular events by 20% when compared to the diuretic stategy.

Source: University of Michigan

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