

### **GUIDELINE ALERT FOR BLOOD PRESSURE PATIENTS AS TREATMENT COMBO FAILS**

**Toronto** – Thousands of Canadians with high blood pressure (hypertension) are being treated with a drug combination that increases the risk of sudden cardiac death, kidney disease and the likelihood of dialysis, warns the Heart and Stroke Foundation.

New guidelines from Canadian Hypertension Education Program (CHEP) based on international research funded in part by the Foundation will urge patients who have been prescribed a combination of ACE inhibitors and Angiotensin II Receptor Blockers (ARBs) to see their family physicians as soon as possible for a treatment change.

“These two popular categories of hypertension medication are each safe and effective treatments – but not together,” says Dr. Sheldon Tobe, spokesperson for the Heart and Stroke Foundation and CHEP executive member.

As many as 175,000 Canadians with high blood pressure may be currently treated with this combination of medications.

Angiotensin Converting Enzyme (ACE) inhibitors are a type of blood pressure medication that helps widens blood vessels, making it easier for blood to flow through. Angiotensin II Receptor Blockers (ARBs) inhibit the action of a peptide called angiotensin, which causes blood vessels to narrow, helping to relax the blood vessels and lower blood pressure.

According to CHEP, most people who develop hypertension will require treatment with two or more medications plus lifestyle modifications. Treating these patients with combinations of drugs will remain a widespread and highly effective practice.

But problems surfaced earlier this year in the ONTARGET study carried out by Heart and Stroke Foundation researchers and published in the New England Journal of Medicine.

In this major international clinical trial of 25,620 patients, the drug combination of an ACE inhibitor and an ARB was found to be only marginally more effective at lowering blood pressure than either of the drugs taken alone. In addition, patients on this combination experienced more side effects such as kidney problems than those on only one of the drugs. Patients were age 55 and over and had vascular disease or high-risk diabetes.

“This trial is a landmark study that helps healthcare providers better understand and more safely prescribe drug combinations for hypertension,” says Margaret Moy Lum-Kwong, director of the High Blood Pressure AIM Strategy of the Heart and Stroke Foundation of Ontario. “If you are on this particular combination treatment for high blood pressure do not stop taking your medication. Instead go directly to your doctor for an alternative treatment.”

“There is a synergy that happens when you use this particular drug combination but, unfortunately, it is not a synergy that benefits patients,” says Dr. Tobe who is also a nephrologist at Sunnybrook Health Sciences Centre in Toronto. “When you put the two drugs together, you

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don't get any additional protection against heart attacks and strokes and you get more negative side effects."

ACE inhibitors and ARBs both lower blood pressure through their action on the renin-angiotensin system – a group of hormones regulated by the kidneys that control long-term blood pressure. "The combined action of these two drugs is a source of major stress on the kidneys," says Dr. Tobe.

"They don't give any additional benefit in combination but each is associated with side effects so all you do is double up the side effects but you don't double up the benefits."

Side effects can include fainting, diarrhea, and dangerously elevated potassium levels which could result in the need for dialysis – or death.

Margaret Moy Lum-Kwong has some advice for Canadians with high blood pressure: "Be aware of your medications – know what you are taking and why.

"Sometimes more is not better," says Dr. Tobe. "The good news is that patients who are experiencing side effects recover as soon as they get off the combination of medications," he says. The recommendations also describe how to combine blood pressure medications appropriately to lower blood pressure in people with diabetes.

The Heart and Stroke Foundation and CHEP have translated the professional blood pressure management guidelines and they are available at [www.heartandstroke.ca](http://www.heartandstroke.ca). For more information on hypertension medications go to [www.hypertension.ca](http://www.hypertension.ca).

The Heart and Stroke Foundation's Blood Pressure Action Plan™ offers realistic strategies and on-going support to help individuals prevent and control high blood pressure. Canadians can get a free, confidential risk assessment by going to [www.heartandstroke.ca](http://www.heartandstroke.ca) To find out more about Heart and Stroke Foundation lifestyle or stroke and heart disease information, and to learn how you can offer much-needed support in your community call 1-888-HSF-INFO (1-888-473-4636).

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For more information:

Stacy O'Rourke  
Heart and Stroke Foundation  
(416) 937-5307