

January 21, 2009

Patient Update: BCPRA Response to Warning from Heart and Stroke Foundation About Combined Use of High Blood Pressure Medications (ACEi and ARBs)*

On January 16, 2009, the Heart and Stroke Foundation issued a warning about the combined use of angiotensin converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARBs). As a kidney patient, you may have questions about this warning and what it means to you. We hope the information below is helpful, and **we encourage you to speak to your kidney doctor (nephrologist) before stopping or making any changes to your drug therapy.**

What does this warning mean for me?

Patients with kidney disease are often on multiple medications to control blood pressure, reduce cardiovascular risk, and reduce protein in the urine. If left untreated, protein in the urine leads to worsening kidney disease. ACEi and ARBs are prescribed by nephrologists for specific reasons, and after considering many aspects of a patient's condition. Patients prescribed these medications are closely monitored by their doctors and medical teams.

Please note that for patients with kidney disease who are followed by nephrologists, these two drugs are rarely used in high doses. This is important, as lower doses have a lower risk of side effects. If signs of complications occur, one or both are stopped. We suggest that kidney patients and/or their family physicians speak to the specialist before stopping or making changes to medications.

Why do nephrologists prescribe ACEi and ARBs?

Current evidence suggests that certain patients with protein in the urine (a major predictor of worsening kidney disease) may benefit from a combination of these medications. In these select patients, the benefits of the combined drug therapy may outweigh the risks. Patients are closely monitored by their physicians for any negative effects of these drugs, such as low blood pressure, fainting, high potassium and kidney dysfunction. It is very important for patients to have regular blood tests and attend follow up appointments arranged by their family doctor and/or kidney specialist. Again, please speak to your doctor before making any changes to your medications.

Background: Why was the warning issued?

Based on a recently published study called ON TARGET, official societies such as the Heart and Stroke Foundation issued warnings about the use of two drugs in combination for the treatment of high blood pressure -- angiotensin converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARBs). The study, recently published in the New England Journal of Medicine, was conducted in a large group of patients over the age of 55 at high risk of cardiovascular disease (with diabetes or heart disease). This randomized controlled trial demonstrated that the combination of the two drugs (versus either one alone) did not reduce cardiovascular death. In addition, patients on both drugs were at higher risk of adverse effects. These included symptoms such as low blood pressure, fainting, high potassium and kidney dysfunction. It's important to note that the majority of patients in this study were not identified as having kidney disease, which



means that the conclusions of this study may not be directly applicable to kidney patients.

Commonly used blood pressure medications in Canada

ACE Inhibitors

Benazepril (Lotensin®)

Captopril (Capoten®)

Cilazapril (Inhibace®)

Enalapril (Vasotec®)

Fosinopril (Monopril®)

Lisinopril (Prinivil®, Zestril®)

Perindopril (Coversyl®)

Ramipril (Altace®)

Trandolapril (Mavik®)

**Angiotension Receptor Antagonist
(ARB)**

Candesartan (Atacand®)

Eprosartan (Teveten®)

Irbesartan (Avapro®)

Losartan (Cozaar®)

Telmisartan (Micardis®)

Valsartan (Diovan®)

Medication list source: Canadian Hypertension Education Program

** This update was prepared in collaboration with and validated by BC nephrologists and pharmacists.*