

Telmisartan and valsartan may lower risk of macrovascular disease in patients with diabetes

Older patients with diabetes who were treated with telmisartan and valsartan had lower risk of hospitalization for cardiovascular events than those treated with other angiotensin receptor blockers.

What does this mean?

- Elderly patients with diabetes initiating treatment with telmisartan and valsartan were at a 14% to 15% reduced risk of hospitalization for heart failure, stroke or myocardial infarction relative to irbesartan.
- Telmisartan was specifically associated with a 20% lower risk of hospital admission for heart failure when compared with irbesartan.
- Risk of hospitalization was not affected by ARB dose.

Clinical Implications

- ✓ Clinically important differences may exist in the effectiveness of ARBs when used for the prevention of diabetes-related macrovascular complications.
- ✓ Consider the effectiveness of ARBs such as telmisartan and valsartan when prescribing these drugs to patients with diabetes.

How do we know this?

The ODPRN conducted a population-based retrospective cohort study of patients aged 66 years or older in Ontario, Canada with diabetes who started treatment with angiotensin-receptor blockers (ARBs; candesartan, irbesartan, telmisartan, losartan or valsartan) between April 1, 2001 and March 31, 2010. We examined the risk of various macrovascular events among these patients by comparing those treated with irbesartan to those treated with either telmisartan, candesartan, losartan or valsartan. The primary outcome was a composite of hospitalization for myocardial infarction, stroke or heart failure. Each outcome was examined individually in secondary analyses, along with all-cause mortality. Findings show that patients treated with either telmisartan [adjusted hazard ratio (aHR) 0.85, 95% confidence interval (CI) 0.74 to 0.97] or valsartan [aHR 0.86, 95% CI 0.77 to 0.95] had a lower risk of the composite outcome compared with patients treated with irbesartan. No significant differences were observed between other ARBs and irbesartan. In secondary analyses, there was a reduced risk of heart failure with telmisartan compared with irbesartan [aHR 0.80, 95% CI 0.66 to 0.96]. No significant differences were observed between angiotensin receptor blockers in any other secondary analyses. The main findings did not change appreciably following adjustment for ARB dose in our analyses.

Antoniou T, Camacho X, Yao Z, Gomes T, Juurlink DN, Mamdani MM. Comparative effectiveness of angiotensin receptor blockers for preventing macrovascular disease in patient with diabetes: a population-based cohort study. *CMAJ*: July 2013.

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