study was driven by an excellent medical education campaign supported by a powerful landmark clinical trial. Is it not possible that application of the results of the HOPE trial in diabetic patients and in patients with vascular disease has saved many lives and that it has prevented numerous myocardial infarctions and strokes?

David Fitchett

Terence Donnelly Heart Centre St. Michael's Hospital Toronto, Ont.

References

- Pilote L. Ramipril use in Canada: HOPE or HYPE? [editorial]. CM47 2003;168(5):568-9.
- Effects of ramipril on cardiovascular and microvascular outcomes in people with diabetes mellitus: results of the HOPE study and MICRO-HOPE substudy. Heart Outcomes Prevention Evaluation (HOPE) Study Investigators. Lancet 2000;355:253-9.
- Yusuf S, Sleight P, Pogue J, Bosch J, Davies R, Dagenais G. Effects of angiotensin-convertingenzyme inhibitor, ramipril, on cardiovascular events in high-risk patients. Heart Outcomes Prevention Evaluation Study Investigators. N Engl J Med 2000;342:145-53.
- Effect of ramipril on mortality and morbidity of survivors of acute myocardial infarction with clinical evidence of heart failure. Acute Infarction Ramipril Efficacy (AIRE) Study Investigators. *Lancet* 1993;342:821-8.
- Garg R, Yusuf S. Overview of randomized trials of angiotensin-converting enzyme inhibitors on mortality and morbidity in patients with heart failure. Collaborative Group on ACE Inhibitor Trials. *JAMA* 1995;273:1450-6.
- Arnold JMO, Yusuf S, Young J, Mathew J, Johnstone D, Avezum A, et al, on behalf of the HOPE Investigators. Prevention of heart failure in patients in the Heart Outcomes Prevention Evaluation (HOPE) study. *Circulation* 2003;107: 1284-90.

Competing interests: Dr. Fichett has received speaker fees and travel assistance from Merck, BMS, Aventis and Servier.

A headline appearing in the highlights section of the March 4, 2003, issue of *CMAJ* was "The hype around HOPE," in reference to an article by Karen Tu and colleagues¹ and an accompanying commentary by Louise Pilote.² This expression was an appropriate play on words to describe changes in the prescribing of ramipril after publication of results from the large Canadian-led HOPE trial.

Reading these articles prompts questions about physicians' role in patient care. Will we continue to be led, like sheep, deeper and deeper into pharmaceutically driven disease management, or can we take charge by considering the real meaning of population health rooted in prevention?

Ramipril and other drugs are being investigated for their potential in preventing type 2 diabetes. But we already know how to prevent type 2 diabetes: lasting lifestyle change. Exercise and the maintenance of a stable, healthy weight prevent adult-onset diabetes. Let us not forget that 90% of type 2 diabetic patients are overweight, and many are obese — hence the recently coined term "diabesity."

Preventing type 2 diabetes through the use of drugs does not represent a success, nor is it honourable. Rather, it represents an abysmal failure and remains unbecoming of the medical profession, driving up health care costs while fuelling more disease and management research, not to mention the fact that all drugs, including those given for their beneficial effects, also have side effects.

Wally Shishkov

Physician

Guelph, Ont.

References

- Tu K, Mamdani MM, Jacka RM, Forde NJ, Rothwell DM, Tu JV. The striking effect of the Heart Outcomes Prevention Evaluation (HOPE) on ramipril prescribing in Ontario. *CMA*7 2003;168(5):553-7.
- Pilote L. Ramipril use in Canada: HOPE or HYPE? [editorial]. CMA7 2003;168(5):568-9.

Competing interests: None declared.

ouise Pilote¹ implies that physicians who prescribed ramipril to more of their diabetic patients after the results of the HOPE study were publicized did so primarily because of marketing hype rather than solid research evidence. As a clinical epidemiologist and diabetes specialist, I am baffled by this position. The HOPE study^{2,3} was by far the largest clinical trial evaluating an ACE inhibitor and enrolled a much broader clinical population than its predecessors. It included a prespecified subgroup of 3577 diabetic participants, possibly more than the total number of diabetic subjects enrolled in all previous ACE inhibitor trials. Diabetic (and nondiabetic) subjects assigned to receive ramipril had statistically and clinically significant risk reductions for major cardiovascular events. Strikingly, the results were homogeneous across all subgroups examined: male and female; with and without previous cardiovascular disease; younger than 65 years of age and 65 years and older; and with and without hypertension, microalbuminuria or dyslipidemia (or any combination of these comorbidities). Therefore, the HOPE study provided excellent evidence to support the use of ramipril in many diabetic patients who would not previously have been considered candidates for an ACE inhibitor. The HOPE study results are widely generalizable to older patients with diabetes because the great majority of such patients would have met the inclusion criteria for the study. The same cannot be said for any other ACE inhibitor trial.

Increased prescription of ramipril for diabetic patients based on the HOPE results represents not hype, but implementation of high-quality evidence from a large, adequately powered randomized trial.

Ronald J. Sigal

Clinical Epidemiology Program Ottawa Health Research Institute Ottawa, Ont.

References

- Pilote L. Ramipril use in Canada: HOPE or HYPE? [editorial]. CMAJ 2003;168(5):568-9.
- Effects of ramipril on cardiovascular and microvascular outcomes in people with diabetes mellitus: results of the HOPE study and MICRO-HOPE substudy. Heart Outcomes Prevention Evaluation (HOPE) Study Investigators. *Lancet* 2000;355:253-9.
- Yusuf S, Sleight P, Pogue J, Bosch J, Davies R, Dagenais G. Effects of an angiotensin-converting-enzyme inhibitor, ramipril, on cardiovascular events in high-risk patients. Heart Outcomes Prevention Evaluation Study Investigators. N Engl J Med 2000;342:145-53.

Competing interests: Dr. Sigal has received speaker fees and research support from Aventis, the manufacturer of ramipril.

[Louise Pilote responds:]

My commentary¹ elicited several letters supporting the results of the HOPE study. However, it was not