sive drug therapy.⁴ We also found that overall costs, including emergency room and hospital utilization, did not change after the policy.⁴ The net savings of \$6 million in the first year in the elderly alone,⁴ which amounted to 6% of expenditures for all cardiovascular drugs,⁵ were much higher than most drug costcontainment policies.⁶ Overall, this is one of the only drug cost-containment policies (of which we are aware) that saved substantial costs without unintended outcomes on patient health status or use of expensive services.

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References

- Anis A. Why is calling an ACE an ACE so controversial? Evaluating reference-based pricing in British Columbia [editorial]. CMA7 2002;166:763-4.
- Schneeweiss S, Soumerai SB, Glynn RJ, Maclure M, Dormuth C, Walker AM. Impacts of reference pricing for ACE inhibitors on drug utilization. CMA7 2002;166:737-48.
- Schneeweiss S, Maclure M, Soumerai SB. Prescription duration after drug copay changes in the elderly: methodological aspects. *J Am Geriatr Soc* 2002;50:521-5.
- Schneeweiss S, Walker AM, Glynn RJ, Maclure M, Dormuth C, Soumerai SB. Outcomes of reference drug pricing for angiotensin-converting enzyme inhibitors. N Engl J Med 2002;346:822-9.
- British Columbia Ministry of Health Services: *Pharmacare Trends 2000.* Victoria, BC; 2001. p. 29.
- Adams AS, Soumerai SB, Ross-Degnan D. The case for a medicare drug coverage benefit: a critical review of the empirical evidence. *Annu Rev Public Health* 2001;22:49-61.

[The author responds:]

In my recent commentary,¹ I was remiss in not noting that the "10% decline in the use of antihypertensives" was not statistically significant (p = 0.15). Nonetheless, regardless of statistical significance, the decline was *real*.

This specific statistic reported the difference in utilization of antihypertensives between the Jan. 1997 *predicted* utilization (as extrapolated from the November 1996 *observed* utilization, Figure 2) and *observed* utilization.²

Instead, if one were to make the comparison using the Oct. 1996 utilization relative to the March 1997 utilization, the decline in antihypertensive utilization appears to be approximately 15%, a decline that is perhaps now also statistically significant. Moreover, the estimated trend in overall antihypertensive utilization does not catch up with the predicted utilization until the very last data point presented: April 1998 (Figure 2). In fact, during the entire 16month post-reference-pricing period studied, the estimated trend is below the predicted line. This represents a real decline in antihypertensive utilization, in which health consequences remain unmeasured.

In the same paper, the authors estimated the cost savings to the BC drug plan from the application of reference pricing of ACE inhibitors to be \$6 700 000 in the first year alone. This estimate is substantially larger than those found by Grootendorst and colleagues, who found savings of an average of \$1 200 000 per year over the first 2 years after the policy was introduced.³ Given that both studies were based on the same administrative source data, could it be that one or both of the studies are methodologically incorrect? An indepth exploration of the causes of the divergence in cost savings is beyond the scope of this rebuttal.

Finally, recognizing that the source data for both of the above studies were collected to process prescription claims and not to perform outcomes research, and that underlying these claims are a complex array of business and personal incentives, exact estimates and an assessment of statistical versus clinical significance should be of secondary importance. What is important is deciding whether, on balance, reference pricing

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was good or bad for the average person with hypertension in BC.

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References

- Anis A. Why is calling an ACE an ACE so controversial [editorial]? Evaluating reference-based pricing in British Columbia. CMAJ 2002;166: 763-4.
- Schneeweiss S, Soumerai SB, Glynn RJ, Maclure M, Dormuth C, Walker AM. Impacts of reference pricing for ACE inhibitors on drug utilization. CMAJ 2002;166:737-48.
- Grootendorst P, Dolovich L, Holbrook A, Levy A, O'Brien B. The impact of reference pricing of cardiovascular drugs on health care costs and health outcomes, vol II: Technical report. Revised 4 October 2001. Available: www .thecem.net/projectsframe.html

Revisiting 9/11

In his response¹ to *CMAFs* report on the Peace Through Health conference held at McMaster University,² Jeff Kolbasnik applauds the US response to the Sept. 11, 2001, attacks on its territory and calls the constructive suggestions and conclusions emerging from the conference ludicrous, bizarre and laughable.

But where do we go from here? Osama bin Laden remains unaccounted for and al-Qaeda remains a force outside Afghanistan, so what has really been accomplished so far? That the Afghan people appear to have been taken from the grip of the Taliban appears positive, but at what price? Perhaps the US military actions, which include Afghan civilian deaths in excess of those from the 9/11 catastrophes, have created alienation and fuelled resentment sufficient for the recruitment of more new terrorists than have been put out of action. The US is already warning of more terrorist attacks.

Surely the exploration of alternatives to military strikes, such as negotiations and police actions involving many nations acting through the UN, is appropriate. Is not protection of citizens more likely to be effective in a state that chooses rule by international law over rule by force? We need, as Kolbasnik concludes, "real understanding and learned discussion of the issues at hand." Wasn't this what the McMaster conference was about?

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References

- Kolbasnik J. Conclusions from McMaster's peace conference "ludicrous and bizarre" [letter]. *CMA*7 2002;166(7):883.
- Sibbald B. Attacks on US a crime, not act of war, conference concludes. CMAJ 2002;166(1):78.

Fracture healing using lowintensity pulsed ultrasound

In their recent meta-analysis on the role of low-intensity pulsed ultrasound therapy on fracture healing,¹ Jason Busse and colleagues conclude that treatment with low-intensity pulsed ultrasound could decrease disability associated with nonunion of fractures. However, the 3 studies investigated in depth^{2,3,4} reported principally on accelerated fracture union but did not report details of nonunion rates in the comparison groups.

Based on the evidence presented, it would be fair to conclude there is accelerated fracture healing. The case for reduction in fracture nonunion rates following low-intensity pulsed ultrasound therapy remains unproven.

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References

- Busse JW, Bhandari M, Julkarni AV, Tunks E. The effect of low-intensity pulsed ultrasound therapy on time to fracture healing: a metaanalysis. CMAJ 2002;166(4):437-41.
- Heckman JD, Ryaby JP, McCabe J, Frey JJ, Kilcoyne RF. Acceleration of tibial fracture-healing by non-invasive low-intensity pulsed ultrasound. *J Bone Joint Surg Am* 1994;76:26-34.
 Kristiansen TK, Ryaby JP, McCabe J, Frey JJ,
- Kristiansen TK, Ryaby JP, McCabe J, Frey JJ, Roe LR. Accelerated healing of distal radial fractures with the use of specific, low-intensity ultrasound. *J Bone Joint Surg Am* 1997;79:961-73.
- sound. J Bone Joint Surg Am 1997;79:961-73.
 Mayr E, Rudzki MM, Rudzki M, Borchardt B, Hausser H, Ruter A. Beschleunigt niedrig intensiver, gepulster Ultraschall die Heilung von Skaphoidfrakturen? Handchir Mikrochir Plast Chir 2000;32:115-22.

[Three of the authors respond:]

We thank M. McAlinden for his interest in our study. He questions the appropriateness of concluding that low-intensity pulsed ultrasound could decrease disability associated with nonunion of fractures, since the 3 studies we pooled did not specifically address this topic. We agree that firm conclusions about this cannot be made. However, in our results section, we made reference to a report that re-analyzed 2 of the pooled trials and found that tibial delayed union was significantly reduced (p =0.02) in a subgroup of smokers vs. controls.1 We felt it appropriate to draw attention to this admittedly preliminary finding, given the importance that delayed unions (which may lead to non-unions) have in fracture healing. Of interest is a recent study that has added further support for the idea that therapeutic ultrasound has a potential role in the treatment of nonunited fractures.²

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References

- Cook SD, Ryaby JP, McCabe J, Frey JJ, Heckman JD, Kristiansen TK. Acceleration of tibia and distal radius fracture healing in patients who smoke. *Clin Orthop Rel Res* 1997;337:198-207.
- Nolte PA, van der Krans A, Patka P, Janssen IM, Ryaby JP, Albers GH. Low-intensity pulsed ultrasound in the treatment of nonunions. *J Trauma*. 2001;51:693-702.

Correction

I n a recent News article,¹ it was incorrectly reported that surgical residents in Maritime provinces worked an average of 55 hours per week. They work an average of 81 hours per week.

Reference

 Sibbald B. Vowing no more cheap labour, US residents file suit. CMAJ 2002;166(12):1579.