

plore the geographic distribution of stroke and better understand stroke risk and care in important subpopulations.

Such a surveillance system would help to guide policy decisions concerning programs and research for specific populations, in ways that research targeted to the science of the disease generally cannot. We recommend that a national stroke care, incidence and mortality monitoring system be given a high priority as an integral part of a full systems approach to reducing the burden of stroke in Canada.

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1. Wilson E, Taylor G, Phillips S, Stewart PJ, Dickinson G, Ramsden VR, et al, on behalf of the Canadian Stroke Systems Coalition. Creating a Canadian stroke system. *CMAJ* 2001; 164(13):1853-5.

## Update from the Canadian Stroke Consortium

In July 2000 *CMAJ* published a brief commentary by us on behalf of the Canadian Stroke Consortium concerning our current national study of stroke following cervical arterial dissection.<sup>1</sup> The goal of the study was, and still is, to determine the relationship of extreme head movements and other forms of head and neck trauma to dissection of the neck arteries and stroke. Therapeutic neck manipulation, performed usually for the relief of neck pain and mostly by chiropractors, is associated with only 20% of the cases of

dissection and stroke in our study.

We quickly received a large volume of email messages and faxes, mainly hostile and mainly from chiropractors. Trial by radio, television and print media was also swift, but the press coverage was generally favourable. However, “sides” were clearly declared. The study was vilified for not having “controls” and for being unscientific in general, and we were criticized for publishing results prematurely.

We have repeatedly protested that this is a collaborative national study (not a “Toronto study”) conducted to collect basic descriptive data on this underreported cause of stroke in young people. Data from the consortium and from centres in other countries consistently confirm dissection of neck arteries to be the major cause of stroke in young people.<sup>2,3</sup> After our commentary was published, a case-control study showed that patients below 45 years of age with vertebrobasilar stroke were 5 times more likely than controls who had not had a stroke to have visited a chiropractor in the week before the event.<sup>4</sup>

Compared with a retrospective study design, the prospective nature of our study allows much more accurate evaluation of the role of trivial trauma in the occurrence of stroke and determination of the frequency of stroke recurrence in the acute phase, which may facilitate development of better therapies. We post data on our Web site as we accumulate it so that it is accessible to all.

Collaboration with our chiropractic colleagues is crucial to understanding and resolving the association between sudden neck movement and stroke. Blanket denial or distortion of our data from various quarters can only delay discovery of the necessary facts at the expense of the well-being of patients.

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3. Bogousslavsky J, Pierre P. Ischemic stroke in patients under age 45. *Neurol Clin* 1992;10:113-24.
4. Rothwell DM, Bondy SJ, Williams JI. Chiropractic manipulation and stroke. *Stroke* 2001;32:1054-60.

## [Editor's note:]

Articles on arterial dissection following cervical manipulation appear on pages 905 and 907 in this issue.

## If it looks like a cow and moos like a cow ...

Canadian medicare is really a medical care insurance plan, run by an arm of government acting as an insurance agency. The government charges the population to recover its costs, and calls this charge a “tax.” But is this really a tax?

Some would argue that it is an insurance premium — if the beast gives milk, chews its cud and moos, it is a cow, regardless of what name you give it. In this case, the premium is bundled in with your income tax. However, honesty and full disclosure require itemization of this “income tax.” (I am not referring to the direct, picayune medicare premiums charged in some provinces.)

The first item would read “income tax” and the second “medicare premium.” You would be required to sum the 2 and pay the total to the receiver general. Then, at least, you would know what medicare actually costs you.

Canadian governments are the equivalents of the private health insurance companies in the United States. In both countries there is a contract between insurer and insured. There is a slight difference in this contract but it is insignificant. In the United States it is explicit. In Canada it is implicit, but nonetheless exists because of our premium (“tax”) payments to government.

In the United States there is consid-

erable support for a “patients’ bill of rights” that would give patients the right to sue the insurer as well as the doctor when performance is inadequate [see page 877]. This must also apply in Canada because Canadian government health insurers cannot be less responsible than their private, for-profit counterparts in the United States.

The major problem with Canadian medical care insurance is the lack of timely access to service, as witnessed by our long waiting lists. A patients’ bill of rights in Canada would give patients the right to sue the insurer — the insuring arm of government — for long delays in treatment. Adoption of this principle would do more to shorten waiting lists than all the reports from government commissions and inquiries, laid end to end.

This plan would in no way violate the Canada Health Act, nor would it lead to two-tier medicine or promote the privatization of medicine. It would simply compel the government to implement the act’s principles instead of paying them lip service.

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## Raloxifene and breast cancer

**W**e wish to acknowledge Kathleen Pritchard and colleagues for bringing to light a number of important issues regarding raloxifene and breast cancer.<sup>1</sup>

In a recent animal study, the effects of raloxifene on several breast cancer cell lines (which had been implanted into athymic mice) were investigated.<sup>2</sup> In the MCF7 (tamoxifen-sensitive) cell line, no significant growth was noted with either tamoxifen or raloxifene. In the MCF7TAMST cell line (a tamox-

ifen-resistant line exposed to tamoxifen for 5 years) “there was no significant difference between tamoxifen and raloxifene, in combination with E2 [estradiol] on tumor growth.” Neither the method by which study doses were chosen nor the use of a control group of mice was mentioned in the abstract. Although we agree with Pritchard and colleagues that raloxifene would not be the osteoporosis treatment of choice in women with tamoxifen-resistant breast cancer, it is premature to extrapolate the results of limited animal-model studies on the effects of raloxifene on tamoxifen-dependent breast cancer cell lines to disease-free humans.

We do not agree with Pritchard and colleagues that “raloxifene is very similar to tamoxifen.” There are differences in their respective tissue-specific effects that translate into distinct clinical profiles. For example, while tamoxifen (a triphenylethylene compound) has been shown to have stimulatory and carcinogenic effects on the human endometrium,<sup>3</sup> raloxifene (a benzothio- phene) has been proven to have no adverse effects on the endometrium.<sup>4,5</sup> The risk of venous thromboembolic events with raloxifene is similar to that seen with either tamoxifen or hormone replacement therapy.<sup>6,7</sup>

We agree that raloxifene is not currently indicated for breast cancer prevention and that it should not be used as a substitute for tamoxifen as adjuvant therapy for breast cancer.

Three large ongoing trials involving over 35 000 women, with reduction of breast cancer as the primary endpoint, will help to further clarify the role of raloxifene in the prevention of breast cancer.

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## References

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2. O’Regan RM, Gajdos S, Dardes R, de los Reyes A, Bentrem DJ, Jordan VC. Effect of raloxifene after tamoxifen on breast and endometrial cancer growth [abstract]. In: *Proceedings of the 37th ASCO Annual Meeting*; 2001 May 12–15; San Francisco. Abstr. no. 95.
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6. Grady D, Wenger NK, Herrington D, Khan S, Furberg C, Hunninghake D, et al. Postmenopausal hormone therapy increases risk for venous thromboembolic disease. The Heart and Estrogen/progestin Replacement Study. *Ann Intern Med* 2000;132:689-96.
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## Corrections

**D**r. Elmira Buxton was predeceased by her husband, Dr. Nigel Buxton. Incorrect information appeared in a recent death notice.<sup>1</sup>

## Reference

1. Deaths. *CMAJ* 2001;165(4):511.

**T**he last line of the final entry in the third column of Table 1 in a recent commentary by Ross Upshur and colleagues was cut off in error during production.<sup>1</sup> The entry should read as follows: “Unclear whether registrants are aware of the data and their uses.”

## Reference

1. Upshur REG, Morin B, Goel V. The privacy paradox: laying Orwell’s ghost to rest. *CMAJ* 2001;165(3):307-9.