

a heightened sense of the continuity of investigation motivated by curiosity and by the desire to help human beings in trouble.

Reading the page I felt humble as I was reminded of the brilliance of scientific perception at a point, 84 years ago, when the tools of both practice and research were so elemental. The ingenuity and perspicacity of the authors were anything but primitive, and their doggedness sets the bar for us today.

Publishing a facsimile of the title page rather than merely reprinting the words enhanced the impact 10-fold. Thank you for this antidote to all the money-related and other pressures that distract us from the idealism of our work. It is a privilege to be reminded that we belong to the same noble profession as Banting and Best and to read their words in the journal in which they were first published.

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#### REFERENCE

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DOI:10.1503/cmaj.1060216

## Self-managed oral anticoagulation therapy

Dean Regier and colleagues successfully demonstrated that there are fewer thrombotic events, fewer major hemorrhagic events, fewer deaths and substantial cost savings for oral anticoagulation therapy self-managed by the patient compared with the same therapy managed by a physician.<sup>1</sup> Several clinical trials have shown patient self-management of oral anticoagulation therapy to be cost-effective, and it reduces the demand for scarce health care resources.<sup>2,3</sup>

The biggest challenge preventing large-scale adoption of the self-management model is that such models have been shown to be appropriate

for only a significant minority of patients.<sup>4</sup> Special attention has to be paid to selecting appropriate patients, training them how to adjust dosages and providing clinical supervision. Not all patients have the ability to understand the concept of oral anticoagulation therapy and the risks of overtreatment. Patient self-management might have turned out to be not all that attractive from an economic standpoint if the effort required to select and train patients as well as product maintenance had been factored into the analysis conducted by Regier and colleagues. The generalizability of their results to a broader population and the cost-effectiveness of this program remain to be demonstrated.

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DOI:10.1503/cmaj.1060152

#### [Two of the authors respond:]

In our study examining the cost-effectiveness of warfarin self-management<sup>1</sup> we incorporated patients with a mechanical heart valve or atrial fibrillation receiving long-term anticoagulant therapy into our model; as such, this is the clinical population of interest. We also stated that warfarin self-management may not be appropriate for all clinical populations receiving long-term anticoagulation therapy. Although this is true, we would like to clarify that for those patients who

wish to manage their own therapy, are deemed competent to do so and receive appropriate training, this option is expected to be cost-effective. We also highlight the statement by Fitzmaurice and colleagues that "patients with long-term indication for warfarin should be considered for self-testing or -management."<sup>2</sup>

To address the concerns of Jeevan Marasinghe and A.A.W. Amarasinghe that our model did not include patient selection, patient training and product maintenance, we first direct readers to the online Appendix 2 of our article, which shows that we included the costs of patient training, among other things.<sup>1</sup> Also modelled were the costs of the device and INR strips, which includes the cost of maintenance and calibration because each device has self-maintenance tools and calibration chips are often included in each box of INR strips. No costs were included for physicians selecting patients because the marginal increase of this fixed cost is negligible.

In the last 2 paragraphs of our Interpretation section, we focused on the 2 limitations of our model. We acknowledged that the results could only apply to those who meet strict criteria. Second, we acknowledged that some patients might prefer physician management over self-monitoring. This latter point was considered in our model through the 20% attrition rate in the self-management arm. As such, we stand by our original conclusions: in patients who are suitable candidates and are willing to perform self-monitoring, this strategy is highly cost-effective.

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managed oral anticoagulation therapy. *CMAJ* 2006;174(13):1847-52.

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## Avascular necrosis after a steroid injection

I read with interest the Clinical Vista Brief about bilateral hip avascular necrosis.<sup>1</sup> I note that the corticosteroid injection was given 8 months before the condition was diagnosed, but the patient had complained of hip pain for 13 months. Cortisone injections (particularly bursa and tendon sheath infiltrations) are extremely common treatments in primary care, but avascular necrosis is rarely seen. Although one always has to be careful when using steroid infiltrations, they are usually quite safe. In this particular case, the connection between the cortisone injection and the development of avascular necrosis is not clear, given the chronology of events.

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### REFERENCE

1. Gunal I, Karatosun V. Avascular necrosis of the femoral heads after single corticosteroid injection. *CMAJ* 2006;175(1):31.

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### [The authors respond:]

We thank Pierre Juéry for his interest in our report on avascular necrosis of the femoral heads.<sup>1</sup> We would like to clarify the chronology of events: the patient's symptoms appeared 8 months after the corticosteroid injection; the MRI scan was done 5 months after the onset of the symptoms or in other words 13 months after the corticosteroid injection. Because the time to symptom onset fits with other reports in the literature, and we excluded all other known causes of avascular necrosis of the

hip, it is our opinion that all patients should be warned about the risk associated with even a low dose of corticosteroids.

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### REFERENCE

1. Gunal I, Karatosun V. Avascular necrosis of the femoral heads after single corticosteroid injection. *CMAJ* 2006;175(1):31.

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