

With simple and inexpensive computerized decision support tools, it is possible to achieve time in the therapeutic range of greater than 80%. I believe our most important problem has been poor warfarin management, not warfarin itself. Perhaps a few dollars spent on computerized support tools would be better value for money than the hundreds of millions being spent on switching to novel oral anticoagulants, with no method of monitoring the degree of anticoagulation (a substantial compliance issue), no effective antidote, and no long-term track record.

—Murray B. Trusler MD CCFP FCFP  
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**Competing interests**

Dr Trusler was the Chief of Staff of the Moose Factory General Hospital in Ontario where they employed 4S DAWN warfarin management software. This led to a dramatic improvement in the time in therapeutic range to greater than 80%. Dr Niall Davidson (neurologist) and Dr Trusler subsequently sourced and licensed a New Zealand product for Canada called INR Online. They hope to gain government sponsorship for the tool so that it can be available free to all Canadian family physicians to help them improve the time in therapeutic range for all of their patients taking warfarin. So far, they have had no revenue from this venture and a lot of expenses.

**References**

1. Kosar L, Jin M, Kamrul R, Schuster B. Oral anticoagulation in atrial fibrillation. Balancing the risk of stroke with the risk of bleed. *Can Fam Physician* 2012;58:850-8.
2. Wallentin L, Yusuf S, Ezekowitz MD, Alings M, Flather M, Franzosi MG, et al. Efficacy and safety of dabigatran compared with warfarin at different levels of international normalised ratio control for stroke prevention in atrial fibrillation: an analysis of the RE-LY trial. *Lancet* 2010;376(9745):975-83.

**Response**

We appreciate the response from Dr Trusler regarding our article on oral anticoagulation in atrial fibrillation (AF).<sup>1</sup> He raises several interesting points. We are not aware of any publications extracting hemorrhagic stroke rates from ARISTOTLE, RELY, or ROCKET-AF by geographic location, nor what the differences in HAS-BLED risk criteria were at time of hemorrhagic stroke. We agree that the new oral anticoagulants likely have minimal to no advantage over well-controlled warfarin. We are aware of the subgroup analysis by Wallentin et al comparing the efficacy

and safety of dabigatran to warfarin at different levels of international normalized ratio control.<sup>2</sup> It was reassuring to see that warfarin had similar outcomes to 150 mg of dabigatran twice daily when the mean time in the therapeutic range (TTR) was 65.5% to 72.6% (hazard ratio 0.69, 95% CI 0.44 to 1.09), and when mean TTR was greater than 72.6% (hazard ratio 0.95, 95% CI 0.61 to 1.48). As mentioned in our article, the Canadian Agency for Drugs and Technologies in Health recommends the use of new oral anticoagulants only in patients who are unable to achieve adequate anticoagulation with warfarin.<sup>3</sup> We also agree that there is need for better warfarin management.

The Canadian Agency for Drugs and Technologies in Health released a report on optimal warfarin management for the prevention of thromboembolic events in AF patients. The report included one study which examined TTR in AF patients; the TTR increased from 46% in 1992 using cardiologist-based manual dosing to 81% in 2006 using computer-assisted dosing in the same practice.<sup>4</sup> The report concluded by recommending a structured approach to warfarin therapy regardless of care setting. A computerized system for dosing warfarin might be a helpful tool; however, as Dr Trusler noted, not all centres can afford to incorporate one. An ideal structured approach for warfarin management would include ongoing patient education, follow-up, and dosing tools. Unfortunately, there likely is no one-size-fits-all solution owing to the variety of practice settings, provincial guidelines, local dosing nomograms, etc.

We appreciate the comments from Dr Trusler, which raise several interesting discussion points.

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**Competing interests**

None declared

**References**

1. Kosar L, Jin M, Kamrul R, Schuster B. Oral anticoagulation in atrial fibrillation. Balancing the risk of stroke with the risk of bleed. *Can Fam Physician* 2012;58:850-8.
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3. Canadian Agency for Drugs and Technologies in Health [website]. *New oral anticoagulants for the prevention of thromboembolic events in patients with atrial fibrillation*. Ottawa, ON: Canadian Agency for Drugs and Technologies in Health; 2012. Available from: [www.cadth.ca/en/products/therapeutic-reviews/anticoagulants](http://www.cadth.ca/en/products/therapeutic-reviews/anticoagulants). Accessed 2012 Jul 4.
4. Canadian Agency for Drugs and Technologies in Health [website]. *Optimal warfarin management for the prevention of thromboembolic events in patients with atrial fibrillation*. Ottawa, ON: Canadian Agency for Drugs and Technologies in Health; 2012. Available from: [www.cadth.ca/en/products/optimal-use/warfarin-management](http://www.cadth.ca/en/products/optimal-use/warfarin-management). Accessed 2012 Aug 28.

## Quality, accountability, and transparency

*We have met the enemy and he is us.*  
Pogo

In his editorial in the August 2012 issue,<sup>1</sup> Dr Nicholas Pimlott encourages medical organizations like the College of Family Physicians of Canada to become leaders in promoting good stewardship of our health care resources and better outcomes for patients. He then asks rhetorically, “What would that look like?”

In the same issue, Shortt and Sketris<sup>2</sup> argue that optimal prescribing is needed especially when expenditures for drugs approximate 16% of total health costs. Rather than just asking what that would look like, they go on to outline several interventions. Of those suggestions only audit and feedback will satisfy the need for quality, accountability, and transparency.

Federal and provincial governments, health boards, and administrators are increasingly asking whether they are getting the most bang for their (limited) health care bucks. The focus is on physicians, both as a cost to the system and as the generators of cost. Cost and sustainability go hand in hand and too often trump quality, which should be the mantra of physicians.

Governments have brought in a variety of measures to ensure cost-effectiveness under the guise of quality. Not having anything to show on quality, we have been distracted by these same measures. Take, for example, fee-for-performance. In at least one Canadian province, physicians are given a year-end bonus if they see patients with diabetes quarterly and send them for blood and urine tests consistent with clinical practice guidelines. Is this a good use of resources? I argue it is not.

Two years ago I audited all of my patients with diabetes for their hemoglobin A<sub>1c</sub> values. (With an electronic medical record this took only 30 minutes. The same work done 8 years previously took 3 working days for data abstraction.) Hemoglobin A<sub>1c</sub> is a surrogate outcome measure, although a valuable one. There were 2 clusters of values; one around

6.8%, the other around 7.8%. My focus, while continuing to monitor those with the better—that is, lower—values (albeit less often than guidelines recommend) is to concentrate more resources on those who stand to have improved hemoglobin A<sub>1c</sub> levels. Under fee-for-performance I would not be compensated for this approach.

One might say that fee-for-performance has shown itself to be a valuable tool. There is little evidence this is true. In fact, changes in physician behaviour came about because their work was being examined—the Hawthorne effect. Audit and feedback can achieve change in physician behaviour. It is a requirement of having the privilege of being a self-regulating profession. We really do not know what we are achieving unless we measure our work.

The August issue provides a further article that can be used for an audit in oral anticoagulation in atrial fibrillation.<sup>3</sup> In the spring of 2012, I audited all patients in my practice with atrial fibrillation and assigned each a CHADS<sub>2</sub> score and a HAS-BLED score, asked whether they were taking warfarin or acetylsalicylic acid, and the reasons why or why not. I then summarized the results and posted a single-page summary in the waiting room for patients to read.

In the fall of 2011 I conducted a Beers criteria audit. Beers criteria comprise a list of drugs that are potentially troublesome in the elderly because of substantial, serious, or even fatal side effects. One hundred consecutive charts of patients older than 65 years of age were reviewed with the Beers criteria. Sixty-eight percent of those reviewed were taking none of the drugs listed as needing to be avoided. This compared favorably with a benchmark of 71% obtained in a specialized geriatric assessment unit. Those results were also posted in my waiting room.

There are many opportunities for small-scale but meaningful audit in each doctor’s practice. Our focus can remain on quality and not costs. To our shame, our licensing boards, medical societies, and associations have dragged their collective feet and not taken any concrete action to see that self-audit of every physician’s practice is achieved. We need to begin now.

We should be proud to stand up, show our results, and say, “This is our work.”

—Paul Bonisteel MD CCFP FCFP  
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**Competing interests**

None declared

**References**

1. Pimlott N. Learning from the neighbours [Editorial]. *Can Fam Physician* 2012;58:818 (Eng), 819 (Fr).
2. Shortt S, Sketris I. Achieving optimal prescribing. What can physicians do? *Can Fam Physician* 2012;58:820-1 (Eng), 822-4 (Fr).
3. Kosar L, Jin M, Kamrul R, Schuster B. Oral anticoagulation in atrial fibrillation. Balancing the risk of stroke with the risk of bleed. *Can Fam Physician* 2012;58:850-8.

## Correction

Une erreur s’est glissée dans la traduction du résumé de l’article intitulé « Les Canadiens acceptent-ils