



## Think you know all there is to know about managing warfarin therapy? **Think again.**

You know that warfarin has been used for more than 60 years to prevent stroke and other blood clots in patients with atrial fibrillation. And you know that it works; its effectiveness is well-established. You're probably also aware that warfarin therapy can be challenging — with diet restrictions, drug interactions, and the need for regular International Normalized Ratio, or INR, monitoring. But if you think you know all there is to know about how best to manage warfarin therapy in patients with atrial fibrillation, you might be in for a surprise.

Decision-makers in health care have questioned the best way to manage warfarin therapy in patients. Is usual care the best model, when patients are followed by their family doctors who monitor their levels of anticoagulation and make dosage adjustments when needed? Some regions have specialized anticoagulation clinics. Are these better in managing warfarin therapy than usual care? Is the best option for warfarin management different in rural and

remote areas than it is in urban centres? What about having patients test their own INRs and adjust their doses themselves?

The Canadian Agency for Drugs and Technologies in Health (CADTH) — an independent, not-for-profit agency that delivers timely, evidence-based information on drugs and other health technologies — recognizes the importance of these questions.

To determine how best to manage warfarin therapy, a systematic review of the clinical evidence was undertaken by CADTH, as well as a review of the economic evidence for the different models of care. Focus groups and interviews with medical specialists, family doctors, nurses, pharmacists, and patients provided an opportunity to understand what is currently happening in the field with warfarin management. An expert panel reviewed the evidence and made recommendations for improving warfarin management.

### Warfarin Management Plan Checklist

Things to consider when developing a structured plan of care:

- ✓ Patient follow-up
- ✓ INR monitoring
- ✓ Dose adjustments (including dosing tool)
- ✓ Other health care professionals involved in care/patient education
- ✓ Patient education — ongoing
- ✓ Caregiver engagement
- ✓ Monitoring for complications/side effects

Based on the best available evidence, it turns out that there isn't a lot of difference in patient outcomes between the different models of care. What does matter is that you manage your patient's warfarin therapy by following a structured plan — whether the care is given in a family doctor's office, a specialized clinic, a specialist's office, or other setting. The warfarin management plan needs to outline the frequency of patient follow-up and INR testing, how dose adjustments will be managed, and how you will monitor your patient for complications and side effects. The plan should incorporate the use of dosing tools, which have been shown to improve treatment outcomes and vary from simple, paper-based nomograms to sophisticated computer software.



Don't forget that the plan should indicate how and when caregivers and other health care professionals will be engaged in your patient's warfarin management. Finally, ongoing patient education is a key part of the plan and is important in optimizing the management of warfarin therapy in your patients (see "Did You Know?").

### Did You Know?

In focus group tests with patients:

- MOST *did not know* that they were taking warfarin to prevent stroke.
- MANY attributed benefits or side effects to warfarin that were unlikely to be due to the drug.

*"My heart feels better when I take my warfarin."*

Despite this, MOST patients felt confident in their level of knowledge concerning their warfarin therapy.

The evidence on patient self-testing and patient self-monitoring was mixed and although these strategies may be an option for some patients, they are not recommended for most. There was not enough evidence to make specific recommendations for rural and remote locations — and this is definitely one area where more research is needed.

The bottom line is that warfarin has been around for a long time, and it works to prevent strokes in patients with atrial fibrillation. But, by following a structured plan when caring for your patients taking warfarin, you can help ensure that they are being managed in the best possible way.

For more information about CADTH and the Warfarin Management project, please contact the [CADTH Liaison Officer](#) in your area.

The CADTH website is [www.cadth.ca](http://www.cadth.ca) and the reports on optimizing warfarin management can be found here: <http://www.cadth.ca/en/products/optimal-use/warfarin-management/reports>.