

Update of the Québec's national
medical protocol on warfarin
adjustment and the template for an
individual adjustment prescription
English summary

Une production de l'Institut national
d'excellence en santé
et en services sociaux (INESSS)
Direction du médicament

This is the English summary of the guidance entitled Mise à jour du protocole médical national et d'un modèle d'ordonnance individuelle d'ajustement de la warfarine - Rapport en soutien - published in July 2019.

The complete version of this guidance (in French) is available on the website of INESSS in the Publications section.

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SUMMARY

Introduction

Warfarin has a narrow therapeutic window and a highly variable intra- and inter-individual dose response. Consequently, frequent monitoring of the anticoagulant effect, expressed as the international normalized ratio (INR), is necessary. Warfarin dose adjustments are to be expected when the INR value is outside the target therapeutic range. They are made frequently and require joint, ongoing monitoring by the different health professionals involved. Given that the current versions of the Québec's national medical protocol (QNMP) on warfarin adjustment and the template for an individual adjustment prescription (IAP) will expire in June 2019, the Direction nationale des soins et services infirmiers (DNSSI) of the MSSS, following a prioritization exercise, asked INESSS to update these two items.

Methodology

In April 2019, INESSS published two optimal use guides (OUGs) on direct oral anticoagulants (DOACs) and warfarin, one of which concerns atrial fibrillation, the other, deep vein thrombosis and pulmonary embolism. A systematic literature search was conducted for the purpose of producing these OUGs. The search yielded items containing information on warfarin adjustment and was updated during the work concerning the QNMP. As regards the update of the QNMP, only the search for best clinical practice guidelines (CPGs), expert consensus reports, consensus conference reports, guidance documents and any other documents containing clinical recommendations was updated to cover the period from the completion of the work on the OUGs to February 2019, all this to find recommendations concerning the elements examined when adjusting warfarin.

These elements were the adjustment details (dosage and international normalized ratio (INR) measurement interval), the thromboembolic risk factors, the bleeding risk factors and the factors that can modify anticoagulation therapy (and their impact on the INR), laboratory tests and their frequency, the main adverse effects and the drug interactions that one should be aware of when adjusting warfarin, the contraindications to the use of warfarin, monitoring aspects, the methods for assessing the thromboembolic risk and the risk of hemorrhagic complications, and sample questions to be put to a patient on warfarin (to identify elements that could potentially cause his/her INR to vary or to detect symptoms or warning signs). The data analysis was performed from a contextualization perspective regarding the practice in Québec and was based mainly on legislative, regulatory and organizational information specific to Québec and on experiential knowledge provided by the different stakeholders consulted.

Results

The new data search (update for covering the period from the completion of the work on the OUGs to February 2019) yielded three publications, all of which were selected. During the update, a few changes in terms of clinical content were made to the 2016 version of the medical protocol entitled "Warfarin adjustment and laboratory tests". Among the important changes to be noted are the lengthening of the INR measurement interval in the presence of a stable INR and a clinical condition permitting the use of a longer interval, the number of warfarin adjustment tables, which now include all the possible contexts of use (this number has decreased from 4 in 2016 to 2 in 2019), and several adjustments to the QNMP concerning the work carried out to create the two OUGs. In addition, the format and layout of the different sections of the QNMP and IAP were revised to reflect the templates INESSS now uses to develop medical protocols and IAP templates.

Conclusion

This update of the warfarin adjustment QNMP and IAP template is based on clinical practice recommendations, which were enhanced with experiential knowledge from different experts and clinicians and with contextual information. Based on an analysis involving the triangulation of the data from these different sources, the update should address the issues raised concerning the 2016 versions of the publications and thus reduce the barriers to their use, all this while promoting interprofessional work. The relevance of updating the QNMP will be assessed at least every 4 years so that it can be revised before the fifth year.

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