

Updated recommendations for adjusting
antidiabetic medication in type 2 diabetes
English summary

Une production de l'Institut national
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SUMMARY

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Introduction

The high prevalence of diabetes, its progressive nature and the many serious related complications contribute to the complexity of the follow-up care for this disease. In addition, a number of new antidiabetic drugs have come onto the market in recent years, providing clinicians with several therapeutic options, each with its particular attributes. Given the issues surrounding this chronic condition, interprofessional collaboration is proving to be an asset for promoting optimal patient management.

Since the completion, in 2019, of the INESSS's work concerning the adjustment of antidiabetic drugs in type 2 diabetes and the publication of the resulting Québec's national medical protocol, the cardiorenal benefits of certain classes of antidiabetic drugs have been demonstrated. Several learned societies and health technology assessment agencies therefore revised their guidelines in 2020 or 2021.

Given:

- The nature of the new developments and their importance in the multifactorial approach to diabetes management,
- Health Canada's approval of the oral formulation of semaglutide,
- The addition of some antidiabetic drugs to the Régie de l'assurance maladie du Québec (RAMQ)'s List of Medications covered by the basic prescription drug insurance plan as exception drugs,
- The moving of some other antidiabetic drugs to the regular section of that list

the update of the national medical protocol on adjusting antidiabetic medication was one of the projects prioritized by the MSSS's Direction nationale des soins et services infirmiers among the tasks entrusted to the INESSS in 2021.

Methodology

A systematic review of clinical practice guidelines, expert consensus statements, consensus conference reports, guidelines and other types of publications containing clinical recommendations was conducted in accordance with the INESSS's standards. The literature search was limited to items published between April 2016 and September 2019. For the 2022 revision, a manual literature search was conducted in June and again in November 2021 by consulting the websites of regulatory and health technology assessment agencies, and those of government agencies, recognized specialized associations and professional bodies pertaining to the topic of interest. Clinical reference works were consulted as well. Lastly, the bibliographies of the selected publications were examined for other relevant items.

An advisory committee consisting of independent clinicians recognized for their expertise in primary care or the field of type 2 diabetes was set up to support the INESSS in this project by providing information, expertise, opinions, or perspectives essential for carrying out the work.

Results

The information search yielded 1059 items, from which 20 were selected and used for the 2019 or 2022 update of the national medical protocol. These clinical practice guidelines contained recommendations concerning the pharmacological treatment of type 2 diabetes in adults and were considered to be of adequate methodological quality, based primarily on the rigour with which they were developed. These guidelines were from Canada [Diabetes Canada CPGEC, 2020a; Diabetes Canada CPGEC, 2020b; Diabetes Canada CPGEC, 2018], the United States [ADA, 2021; ADA, 2019; Qaseem *et al.*, 2018; Qaseem *et al.*, 2017; VA/DoD EBPWG, 2017], Europe [Arditi *et al.*, 2021; Buse *et al.*, 2020; Cosentino *et al.*, 2020; Ardit *et al.*, 2018; Davies *et al.*, 2018], the United Kingdom [Seidu *et al.*, 2021; Hambling *et al.*, 2019; SIGN, 2017], Australia [Living Evidence for Diabetes Consortium, 2020; RACGP, 2020] and international associations [Li *et al.*, 2021; KDIGO Diabetes Work Group, 2020; WHO, 2018].

Consistent with the issues encountered in Québec care settings, the principles for adjusting pharmacological treatments in the elderly and fragile diabetic patients were common aspects covered in the selected publications. Thus, new features of the work done in 2019 included downward adjustment, as well as clinical benchmarks and guidance to help direct the search for and analysis of the factors that can influence glycemic control. In addition, new data highlight some cardiovascular or renal benefits of certain antihyperglycemic agents in diabetic patients with atherosclerotic cardiovascular disease as well as in those with multiple cardiovascular risk factors but without established atherosclerotic cardiovascular disease. In line with this new knowledge, the 2022 update adds new features to the clinical approach to guide health professionals in analyzing the risks and benefits associated with treatment using agents in the class of sodium-glucose cotransporter-2 inhibitors (SGLT2i) and the class of glucagon-like peptide-1 receptor agonists (GLP1-RA). Similarly, in keeping with the multifactorial and holistic approach to managing type 2 diabetes, the rationale for reevaluating antidiabetic therapy beyond achieving or not achieving an individualized glycemic target is also presented. Lastly, to support clinicians in adjusting the oral formulation of semaglutide approved by Health Canada in 2020, information regarding its conditions of use and adjustment has been included.

Conclusion

The work on antidiabetic medication adjustment was based on clinical data and clinical practice recommendations from the literature, which various Québec experts and clinicians supplemented with their experiential and contextual knowledge. The analysis and synthesis of the data from these different sources enabled the identification and incorporation of the latest practices recommended by recognized specialized associations regarding the new indications for certain SGLT2i and GLP1-RA, while taking into account the restrictions pertaining to the drugs' coverage by the public prescription drug insurance plan (RPAM). The changes made as part of this update will help optimize the joint follow-up by the different professionals of a diabetes treatment team, and ultimately, the new guidance should improve the care experience of patients taking one or more antidiabetic drugs.

The advisability of updating the recommendations will be determined in four years, that is, in 2026, on the basis of the advances in scientific data, the clinical practice changes, the modifications in the RAMQ's List of Medications covered by the basic prescription drug insurance plan concerning antidiabetic drugs, and the health and social services system's needs.

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