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Overview of the use of lipid-lowering agents from 2010 to 2015 in persons covered by Québec's public prescription drug insurance plan

English summary

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Québec

This is the English summary of the guidance entitled Portrait de l'usage des hypolipémiants de 2010 à 2015 chez les personnes couvertes par le régime public d'assurance médicaments du Québec published in June 2017.

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

Lipid-lowering agents are one of the classes of drugs targeted in the Ministère de la Santé et des Services sociaux (MSSS)'s clinical relevance project because they are widely prescribed, their use is the subject of certain scientific debates, and persistence with and adherence to these drugs are poor. A complete update of the overview of the use of lipid-lowering agents from 2004 to 2008 was carried out for the purpose of the INESSS report entitled "Statines/hypolipémiants et diminution du risque cardiovasculaire". The overall objective of updating the overview was to describe the use of lipid-lowering agents in adults covered by the public prescription drug insurance plan (PPDIP) from 2010 to 2015.

Methods

For the purposes of this objective, we conducted a retrospective cohort study using four digital files stored at the Régie de l'assurance maladie du Québec (RAMQ). For each study year, we calculated the prevalence of lipid-lowering agent use in individuals 18 years of age or older covered by the PPDIP, for the total sample and by age, sex, category of insured and risk of cardiovascular disease (CVD). New users were described according to the same variables as well as by the drug received at the start of treatment. New users must not have received any other study drug during the 365 days preceding the date of the start of treatment with a lipid-lowering agent. The level of adherence to statins was estimated over a 5-year follow-up period using the MPR (medication possession ratio) index in the new users of this lipid-lowering therapy. The MPR was calculated by dividing the total number of days during which the drug was taken by the duration of follow-up considered. Persons whose MPR was ≥ 80% were considered adherent to their treatment, those whose MPR was 20% to < 80% were considered partially adherent, and those whose MPR was < 20% were considered nonadherent.

Individuals with a history of atherosclerotic vascular disease (AVD) or with diabetes or chronic kidney disease were considered to be at high risk for CVD. All others were considered to be at low to moderate risk. New users were individuals who had not received any other study lipid-lowering agent during the 365 days preceding the index date, which was the date on which the first prescription was executed. A new user could only be included in the study once.

The variables associated with the prescribing of a lipid-lowering agent in individuals at high risk for CVD from 2010 to 2015 were determined by log-binomial regression. The relative risks (RRs) were adjusted for age, sex, category of insured, year of the start of treatment, and history of AVD, diabetes or chronic kidney disease, and 99% confidence intervals (CIs) were calculated.

Results

The prevalence of lipid-lowering agent use in persons covered by the PPDIP stabilized at approximately 31% during the study period. The prevalence of the use of a lipid-lowering agent in individuals at high risk for CVD increased from 66.5% in 2010 to 67.9% in 2015. Age was the main determinant associated with the prescribing of a lipid-lowering agent in persons considered to be at high risk for CVD. The other variables considered, namely, sex, category of insured, year of the start of the lipid-lowering therapy, history of AVD, type I or II diabetes, chronic kidney disease, obesity and hypertension, were not at all, or only to a very small degree, associated with the prescribing of a lipid-lowering agent.

Nearly all (99.6%) of the new lipid-lowering agent users from 2010 to 2015 received a lipid-lowering agent as monotherapy at the start of treatment, it being a statin in most cases (92.5%), a bile acid sequestrant (BAS) (3.8%) or a fibrate (2.3%). From 2010 to 2015, the proportion of new users of BASs as monotherapy increased by 2.5%, while the proportion of new users of a statin or fibrate decreased by 1.9% and 0.75%, respectively.

The level of CVD risk seems to have influenced the use of a high-intensity statin at the start of treatment, given that 9.5% of the new users with a low to moderate CVD risk took one compared to 26.7% of those at high CVD risk. Furthermore, 4 years after the start of treatment, 19.1% and 30.3%, respectively, of the new users with a low to moderate CVD risk and those with a high CVD risk who were still being treated and who were still covered by the PPDIP received a high-intensity statin. The use of high-intensity statins in individuals over 75 years of age was found to be similar to that observed in the new users at the start of treatment, that is, 8.5% and 26.1%, respectively, for those with a low to moderate CVD risk and those with a high CVD risk. The use of a high-intensity statin in persons over 75 years of age increased only in those with a low to moderate risk of CVD (13.1%) during the follow-up.

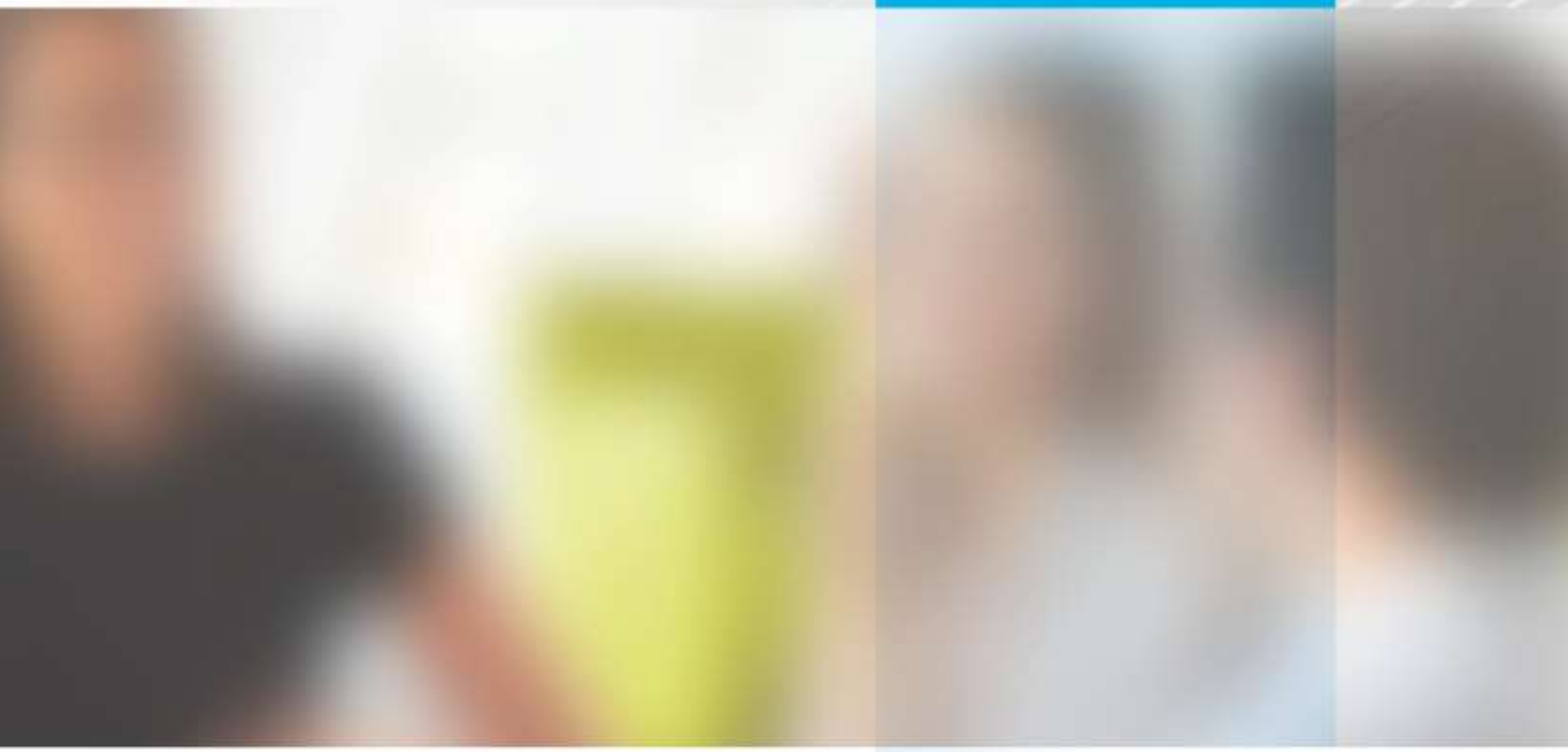
The proportion of all the new users of lipid-lowering agents who persisted with their treatment decreased to 74.4% at 180 days, regardless of age. This proportion decreased at 2 years (68.7%) and stabilized at 3 years (67.7%), 4 years (67.0%) and 5 years (66.3%). The new statin users included in the adherence analyses constituted a cohort of 53,432 individuals. The 5-year gross cost of their statin prescriptions was $71.9 million. Of these 53,432 new statin users, only 52.9% maintained at least 80% adherence to their treatment during the 5-year follow-up, for a gross cost of $52.7 million. One-sixth (16.3%) of the new statin users exhibited a treatment adherence rate of < 20% during the 5-year follow-up, for a gross cost of $1.8 million. The new statin users considered as having been only partially compliant or not compliant at all used a lipid-lowering agent other than a statin during the 5-year follow-up at a proportion of 8.5% and 6.3%, respectively.

Conclusions

The proportion of individuals at high risk for CVD who were treated with a lipid-lowering agent increased very slightly and remained suboptimal from a medical standpoint in 2015. Nearly all of the new users of lipid-lowering agents from 2010 to 2015 received only one drug at the start of treatment, it being a statin, which was in line with the Canadian Cardiovascular Society’s 2009 and 2012 Canadian guidelines. The reduction in

the use of a fibrate alone or in combination with a statin is a positive trend, given the lack of clinical evidence supporting their use and the increased risk of muscle toxicity with this combination. In addition, the frequent initiation of treatment with a high-intensity statin in individuals over 75 years of age may not have always been warranted, given the uncertain usefulness of a lipid-lowering agent to treat persons in this age group and the fact that initiating treatment with a high-intensity statin should be reserved for individuals aged 75 years or less. An additional study might shed light on the situation regarding individuals over 75 years of age and on the significantly stronger increase in the use of a high-intensity statin in new users with a low to moderate risk of CVD compared to those with a high risk of CVD.

Before intensifying lipid-lowering therapy when there is an unsatisfactory outcome, clinicians should inquire about the patient's adherence to statins, given the high proportion of new statin users who are nonadherent, regardless of their age. Improving adherence to statin therapy with effective interventions will entail additional costs, which will be necessary to remedy the absence or lack of benefits from pharmacological treatments. It remains to be determined if these additional costs will be acceptable compared to those associated with the use of health-care services for unprevented cardiovascular events in individuals who do not adhere to statins.



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