Title	**Description of the use of Proton Pump Inhibitors (PPIs) in adults covered by the Public Prescription Drug Insurance Plan**
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Aim

The study's objectives were to describe PPI use, from 2007 to 2010, among adults aged 18 years or over who were covered by the Public Prescription Drug Insurance Plan and to compare this use with optimal utilization criteria in order to assess compliance with them.

Conclusions and results

There were 461,185 PPI users in 2007 and 558,528 in 2010, for a prevalence of PPI users of 19.2% and 21.5%, respectively. The level of compliance with the utilization criterion "once-daily dosing of the initial PPI" was 93.1% for the new users during the 4 years of the study. The level of compliance with the criterion "a 4-week duration for the first prescription for a PPI" was 19.1%. Only 14.7% of the new users among those whose PPI therapy met the second optimal utilization criterion had a medical visit suggesting a reevaluation after 4 weeks of treatment (third criterion).

The results of this study provide a brief overview of the practice and will give PPI prescribers food for thought regarding their prescribing habits. This reflection should mainly concern the frequent PPI treatments of 12 or more weeks' duration and the fact that there was no medical visit in 20% of new PPI users within the year following the start of treatment. Improvement in PPI use does seem possible. This improvement would require a better follow up or evaluation of the treatment indication.

Methods

A retrospective cohort study was carried out using three databases administered by the Régie de l'assurance maladie du Québec (RAMQ). The beneficiary data were from the registration file of individuals covered by the public portion of the basic prescription drug insurance plan. The data on the drugs were from the database containing the pharmaceutical services billed to the RAMQ by pharmacists under the Public Prescription Drug Insurance Plan. As for the information on the medical services received, it was from the database containing payment requests from physicians paid on a fee-for-service basis. The data from these three sources were linked using the unique beneficiary identifier (scrambled). For each year examined, the new users were described according to several variables, such as the duration of treatment, the number of medical visits, the use of certain medications during PPI therapy, and the discipline of practice of the physician who prescribed the initial PPI therapy. The total duration of new users' PPI therapy was determined without distinction to the generic name of the PPI. The number and proportion of new treatments that met the optimal utilization criteria based on three key messages from the Conseil du médicament were calculated. These three criteria were once-daily dosing of the initial PPI, a 4-week duration for the first prescription for a PPI, and a reevaluation after 4 weeks of PPI therapy. The first optimal utilization criterion was applied to all the new users, while the second and third were applied only to the new users with uninvestigated dyspepsia who had not started *Helicobacter pylori* eradication treatment or who were not using medications suggesting PPI gastroprotection, namely, an NSAID, an antithrombotic or a corticosteroid.

Further research/reviews required

Further studies would be useful for determining if the key messages updated in 2009 and disseminated in June 2010 have had an effect on clinical practice in Québec in the short or medium term.

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