

<b>Title</b>	<b>Overview of the Use of Antihypertensive Agents by Adults Covered by the Québec Public Prescription Drug Insurance Plan</b>
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<b>Reference</b>	ETMIS 2012 8(6) Printed French edition 978-2-550-62732-6 <a href="http://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/ETMIS2012_Vol8No6_AHT.pdf">http://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/ETMIS2012_Vol8No6_AHT.pdf</a> English summary (PDF) 978-2-550-62733-3 <a href="http://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/ETMIS2012_Vol8_No6_AHT_SUMMARY.pdf">http://www.inesss.qc.ca/fileadmin/doc/INESSS/Rapports/Medicaments/ETMIS2012_Vol8_No6_AHT_SUMMARY.pdf</a>

## Aim

The objectives of this study were to provide an overview of the use of antihypertensive drugs from 2007 to 2009 among the beneficiaries of the public prescription drug insurance plan (Régime public d'assurance médicaments, RPAM) aged 18 years or older, and also to compare the use of antihypertensive drugs against optimal use criteria in order to measure compliance with them.

## Conclusions and results

This study showed that 946,857 people, or 37.3% of the adults covered by the RPAM, used antihypertensive drugs, accounting for an annual cost of \$589 million in 2009. Of the 79,181 new users of antihypertensive drugs with diagnosed hypertension from 2007 to 2009, 82.5% were prescribed a single drug as initial treatment. Combination therapy was observed at treatment initiation in 17.5% of new users with diagnosed hypertension and in 37.9% of them two years later.

Angiotensin-converting enzyme inhibitors (ACEIs) and especially angiotensin II receptor blockers (ARBs) were the classes of antihypertensive agents most commonly used during the three study years. The same two classes were also the most commonly used in combination, especially with diuretics. At three months, 69.8% of new users were still following their antihypertensive treatment. This proportion remained steady at 12 months (69.1%) and at 24 months (69.2%) after the start of this treatment. From 2007 to 2009, 72.8% of new users with diagnosed uncomplicated hypertension were receiving antihypertensive therapy in compliance with the optimal use criteria based on the CHEP for treatment initiation. This proportion was 62.6% among new users with diagnosed hypertension and diabetes, and 28.2% among new users with diagnosed hypertension and chronic kidney disease but without diabetes. For the three years, the proportion of new users with uncomplicated hypertension was higher for the criterion of compliance with bitherapy. This proportion was 84.0% at 3 months, 82.8% at 12 months and 82.5% at 24 months after treatment initiation.

## Recommendations

Even if the compliance rates with CHEP criteria were generally high, it would be interesting to conduct a further study to assess whether a greater interdisciplinary approach would help improve treatment persistence and compliance with CHEP recommendations among new users. The increased use of diuretics and ACEIs, both in monotherapy and in combination therapy, along with the decreased use of ARBs, could serve as quality indicators for first-line use of these drugs in a future study.

## Methods

A descriptive, historical cohort study was conducted to achieve these objectives. The information required to carry out this study was drawn from three databases administered by the Régie de l'assurance maladie du Québec (RAMQ): registration records of individuals covered by the public prescription drug insurance plan, records on pharmaceutical services and records on medical services billed by procedure. The study population included all Québec residents aged 18 years or older covered by the RPAM. The users of antihypertensive drugs were described, and the treatment for new users with diagnosed hypertension was detailed on the initial treatment date and then 3, 12 and 24 months later. Compliance with two optimal use criteria based on the 2006 Canadian Hypertension Education Program (CHEP) was measured. The first criterion concerned the use of the recommended initial pharmacological treatment. The second criterion assessed the combinations of two antihypertensive agents at 3, 12 and 24 months following the initial pharmacological treatment.

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