PEY18

CHANGES IN MEDICAL AND SURGICAL TREATMENTS OF GLAUCOMA BETWEEN 1997 AND 2003 IN FRANCE

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OBJECTIVES: To analyze quantitative changes in glaucoma treatment strategies between 1997 and 2003 in France. **METHODS:** The number of trabeculectomies and other glaucoma surgeries was extracted from the national database of the French Diagnosis Related Group system, which includes data for both public and private hospitals. Numbers of patients treated per year were estimated from drug unit sales using defined daily doses for each drug. **RESULTS:** New medical treatments of glaucoma and ocular hypertension, introduced in France between 1997 and 2003, allowed to treat 557,000 patients. In 2003, 63% of patients treated with these new medicines were receiving prostaglandins (39% latanoprost, 9% travoprost, 8% the fixed combination of latanoprost + timolol, and 7% bimatoprost), 13% brinzolamide, 13% the fixed combination of dorzolamide + timolol and 11% brimonidine. During the same period, trabeculectomies declined by 38% (–48% in public hospitals and –32% in private clinics), while the total number of glaucoma surgeries declined by 22% (–34% in public hospitals and –14% in private clinics). Hospital days related to open-angle glaucoma surgery declined by 51%. There is a strong correlation (r = –0.97) between the reduction of glaucoma surgery and the increase in the number of patients treated with prostaglandins during the study period. **CONCLUSIONS:** Between 1997 and 2003, new glaucoma drugs, primarily prostaglandins, by improving IOP control and stabilizing disease progression in many patients, may have delay surgery, reducing glaucoma surgery by 22%.

PEY19

PROSTAGLANDIN AGONIST USE WITH AND WITHOUT ADJUNCTIVE THERAPY FOR THE TREATMENT OF GLAUCOMA: A CANADIAN POPULATION BASED ANALYSIS

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OBJECTIVES: Glaucoma is an optic neuropathy associated with visual field loss. Uncontrolled disease may progress to total blindness. Currently, the only treatment for glaucoma is to lower intraocular pressure. First-line treatment involves using β-blockers or prostaglandin analogs. β-blockers and other intraocular pressure lowering agents may be used as adjunctive therapy to prostaglandins. We quantified the use of adjunctive therapy in association with prostaglandins. **METHODS:** We conducted a cohort study using claims data from Québec, Canada. We identified all patients with a first claim for bimatoprost, latanoprost or travoprost between May 24, 2003 and February 28, 2005, and analyzed adjunctive therapy utilization in the first 12 months of prostaglandin use. Use of adjunctive therapy was identified by at least two intermittent claims other than the index prostaglandin in the 12-month follow-up period from their first prostaglandin prescription. Statistical and descriptive analyses were performed using SAS 9.1. **RESULTS:** In total, 7982 patients were included. The average age was 74 (±10) years, 60% were females. Prostaglandin users who were naïve to any glaucoma treatment, i.e. who started their therapy with prostaglandins, comprised 60%, 58%, and 57% of the bimatoprost, latanoprost and travoprost cohorts, respectively (no significant differences, $\chi^2 = 1.20$, $p = 0.550$). The proportions of patients requiring adjunctive therapy were 40%, 35%, and 33% for bimatoprost, latanoprost and travoprost, respectively. A significantly higher proportion of adjunctive therapy was associated with bimatoprost users (bimatoprost vs. latanoprost: $\chi^2 = 11.33$, $p < 0.001$; bimatoprost vs. travoprost: $\chi^2 = 10.94$, $p < 0.001$). **CONCLUSIONS:** Between 33% and 40% of continuous prostaglandin users required adjunctive therapy in the first 12 months. The travoprost cohort had the lowest percentage of patients who required adjunctive therapy. Further research is warranted for incident vs. prevalent analyses, as well as economic impact.

PEY20

MEASURING CURRENT USE OF OCULAR HYPOTENSIVE THERAPIES: ACCOUNTING FOR RESTART RATES

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OBJECTIVE: To develop an approach to measuring current use of topical ocular hypotensive medication that accounts for both persistence (continuous use) and discontinuation followed by restarting therapy. **METHODS:** This retrospective cohort study of pharmacy claims submitted to a large national U.S. administrative claims database, analyzed claims for 3 prostaglandin analogues (bimatoprost, latanoprost, and travoprost [index prostaglandin]) submitted between 2001 and 2002. Patients who did not have coverage in the plan for the preceding 180 days or had been prescribed any ocular prostaglandin in the prior 180 days were excluded. Persistence was defined as neither discontinuing nor changing the index prostaglandin. The number of current users of the index prostaglandin at day 180 was the sum of patients who persisted with the index prostaglandin plus patients who restarted the index prostaglandin following a discontinuation. **RESULTS:** Of the 4356 patients who started prostaglandin therapy, 2503 (57%) were potential current users (were still plan members and had not switched ocular hypotensive therapies after 180 days). Just over half of these, (1356/2503, 54%) were actual current users, including 879/2503 (35%) who persisted with their index prostaglandin and 477/2503 (19%) who restarted their index prostaglandin. More than half of those who discontinued their index prostaglandin failed to restart any topical therapy (827/1624, 51%) before the end of the study or their plan enrollment. **CONCLUSIONS:** Previous studies showing poor persistence for ocular hypotensive therapy have not accounted for restarts. Including patients who discontinue and restart therapy reflects current use more accurately, but persistence remains a challenge.

PEY21

IMPACT OF BILATERAL NEOVASCULAR AGE-RELATED MACULAR DEGENERATION AND RELATED VISUAL IMPAIRMENT ON PATIENTS' QUALITY OF LIFE AND FUNCTIONING: A SURVEY OF FIVE COUNTRIES

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