

TRENDS IN PHYSICIAN PRESCRIBING OF TOPICAL MEDICATIONS FOR GLAUCOMA IN US OUTPATIENT SETTINGS

Monali J. Bhosle, Rajesh Balkrishnan

Dept. of Pharmacy Practice and Administration

The Ohio State University, College of Pharmacy

Objectives: Topical beta-blockers and prostaglandin analogs are widely used for the treatment of primary open-angle glaucoma. The objective of this study was to examine the trend in prescribing patterns of topical glaucoma medications. In addition, we also examined the association between socioeconomic factors related to patients as well as physicians with the prescribing patterns of topical glaucoma medications.

Methods: This retrospective cross sectional study utilized the National Ambulatory Medical Care Survey data from 1999-2003. Patients aged ≥ 18 years who received treatment for glaucoma in US outpatient settings over this period were included. Office visits were considered to be glaucoma related, if ICD-9 diagnosis codes for glaucoma were reported, if glaucoma was reported as the reason of visit, and if any glaucoma medication was prescribed. Weighted logistic regression was used to study the objectives.

Results: Prostaglandin analogs and beta-blockers were prescribed in 8.8 million and 6.8 million outpatient visits respectively during years 1999-2003 (total weighted sample size=34.1 million). The number of prescriptions for prostaglandin analogs increased over the 4 year period (1.7 million in 1999 to 2.2 million in 2003). The number of prescriptions for beta-blockers decreased by approximately 47% from 1999 to 2003 (1.9 million to 1 million). Compared to beta-blockers, the odds of patients receiving a prescription of prostaglandin analogs in year 2003 were twice as much as in year 1999 (95%CI: 1.29-4.48). Patients' sociodemographic characteristics such as age, gender, race, source of payment, and physicians' specialty were not significantly associated with the prescribing patterns these medications.

Conclusions: In the nationally representative sample of glaucoma patients, there was an increasing trend in the number of prescriptions for prostaglandins. Superior clinical effects, improved therapeutic index, safety, efficacy, and ease of administration with prostaglandin analogs such as latanoprost may be contributing to the higher number of prescriptions.