among vision states at baseline. The incremental cost per vision
saved, defined as one additional year spent in any state
better than legal blindness, was estimated to be $13,100. CON-
CLUSIONS: Visudyne® is reasonably cost-effective compared to
usual care. The model is capable of analyzing the many new and
combination therapies anticipated in the near future.

PEY6
REAL-WORLD UTILIZATION PATTERNS OF CYCLOSPORINE
OPHTHALMIC EMULSION 0.05% WITHIN MANAGED CARE
Chiang TH1, Walt J1, McMahon Jr JP2, Mansfield Jr JE1
1Allergan Inc, Irvine, CA, USA, 2Verispan LLC, Yardley, PA, USA
OBJECTIVE: To assess utilization patterns of cyclosporine oph-
thalmic emulsion 0.05% (cyclosporine) within managed care
using a claims database. METHODS: Patients with at least one
prescription for cyclosporine over a 3-month enrollment period
and at least one refill prescription over the 12-month follow-up
period were included in the analysis. If the patient did not have
a prescription for cyclosporine during the 12 months prior to the
enrollment period, the patient was classified as a new patient
while patients with at least one prescription for cyclosporine
during the prior use period were considered a continuing patient.
Daily, monthly, and annual utilizations were assessed for the
two cohorts. Based on this retrospective approach, no data on
efficacy were available for analysis. RESULTS: A total of 38,164
patients met the inclusion criteria and a majority (59%) was new
to therapy, female (82%), and 50 years or older (77%). Per
Federal Drug Administration (FDA)-approved use, a patient is
recommended to use 2 vials per day (2 trays per month or 24
trays per year). On average, 73% of the patients used 1 tray per
month based on an analysis of prescription refill patterns.
Annual data was similar in that 80% of the patients used 11
trays or less per year. Daily utilization differed between contin-
uing and new patients. New patients had a bimodal use pattern
as over 30% were using 1.75 vials per day and approximately
55% were using 0.25 to 1.25 vials per day. The majority of con-
tinuing patients, however, (approximately 80%) used 0.25 to
1.25 vials per day. CONCLUSIONS: While some new patients
take cyclosporine as prescribed (2 vials per day), the majority of
continuing patients follows a utilization pattern of approxi-
ately 1 vial per day. As such, the impact on a managed care
budget may be significantly less than originally estimated.

EYE—Health Care Use & Policy Studies

PEY7
VARIATIONS IN PHYSICIAN PRESCRIBING OF TOPICAL
MEDICATIONS FOR GLAUCOMA IN US OUTPATIENT
SETTINGS
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OBJECTIVES: Topical beta-blockers and prostaglandin analogs
are widely used for the treatment of primary open-angle glau-
coma. The objective of this study was to examine the trend in
prescribing patterns of topical glaucoma medications. In addi-
tion, we also examined the association between socioeconomic
factors related to patients as well as physicians with the pre-
scribing 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 diagno-
sis codes for glaucoma were reported, if glaucoma was reported
as the reason of visit, and if any glaucoma medication was pre-
scribed. Weighted logistic regression was used to examine study
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
analog increased over the 4 year period (1.7 million in 1999 to
2.2 million in 2003). The number of prescriptions for beta-block-
ers 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 sig-
nificantly associated with the prescribing patterns these medica-
tions. CONCLUSION: 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.

PEY8
ECONOMIC EVALUATION OF EARLY TREATMENT FOR
PATIENTS WITH PRIMARY OPEN ANGLE GLAUCOMA
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OBJECTIVES: Glaucoma is an ocular disease resulting in irre-
versible loss of visual function. Early identification and treatment
has been demonstrated to improve outcomes, but incurs addi-
tional costs. This analysis was performed to determine the incre-
mental cost-effectiveness of early compared to late treatment
of patients with Primary Open Angle Glaucoma (POAG).
METHODS: A decision analytic Markov model was developed
using a 25-year time horizon. The perspective was that of the
Ministry of Health and Long-term Care of Ontario, Canada;
thus, included only direct medical costs. Health states were
defined according to mean visual field deviation scores as mild
(0 to −4.9), moderate (−5.0 to −11.9), severe (−12 to −19.9), and
legally blind (≤20+). The primary outcome was defined as vision
years gained (VYG), i.e., time prior to reaching the legally blind
(absorbing) state. Costs and outcomes were derived from the lit-
erature; expert opinion was consulted where necessary. All costs
are reported in 2005 Canadian dollars. All costs and outcomes
were discounted at a 5% rate. The pharmacoeconomic outcome
was incremental cost per VYG. Various one-way and multi-vari-
able probabilistic sensitivity analyses were performed to test the
robustness of the results. RESULTS: Total discounted costs
of early and late treatment were $7107 and $5608, respectively.
Differences in costs were attributed to an increased need for
resource intensive procedures and physician visits, approxi-
mately 75% of the total cost of the severe and legally blind health
states. Total expected VYG were 13.07 for early treatment and
12.65 for late treatment. The incremental cost effectiveness ratio
was $3,543/VYG. Results were sensitive to decreases in the rate
of disease progression and time horizon and increases in the
yearly cost of treating patients with mild disease.
CONCLUSIONS: Early treatment of patients diagnosed with
POAG is a reasonably cost-effective choice, providing added
years of vision.