the MLP to the trial data showed that timolol-treated patients had a higher risk of developing night IOP peaks than travoprost-treated patients. The estimates were 57.8% versus 58.2% (P < 0.90) respectively for travoprost and latanoprost using 8:00 IOPs, but 43.6% versus 50.0% (P < 0.05) with 10:00 IOPs, and 43.9% versus 53.3% (P < 0.005) using 16:00 IOPs. CONCLUSION: IOP measures during the day are correlated with night measures. The MLP results suggest that control of IOP in late afternoon might also prevent night IOP peaks. Prostaglandin analogues were associated with a lower probability of late afternoon and night time IOP peaks than timolol. The travoprost night IOP peak probability was lower than that for latanoprost.

OBJECTIVE: To confirm randomized clinical trial results showing that travoprost reduces IOP with sustained efficacy in the afternoon, 20–24 hours after the last instillation.

METHODS: Patients treated with a prostaglandin analogue monotherapy for ocular hypertension or glaucoma was included in this cross-sectional retrospective survey. Demographics, anamnesis, previous treatments were collected from medical chart. IOP and the last instillation time were collected during the visit. ANOVA, logistic regressions and propensity scores were used to compare the 2 treatments. RESULTS: 2503 patients were included by 494 ophthalmologists. Patients averaged 64 years old (45% male). 2052 patients were treated with travoprost or latanoprost and the last instillation time was documented for 1702 of them. 1241 patients had properly used their medication within the previous day and 461 patients had failed to take it. IOP was 25 mmHg at diagnosis and 22.5 mmHg at the initiation of the current treatment. The two groups were comparable but travoprost-treated patients had a shorter disease and treatment duration. When the instillation was given during the day before, travoprost better controlled IOP at 12.00 and 16.00 hours (16.79 versus 17.51 mmHg; P < 0.05) and after 16.00 (16.55 versus 17.67 mmHg; P < 0.003). When the interval time between the instillation and IOP recordings was >24 hours, travoprost-treated patients had a lower IOP (16.76 versus 17.80 mmHg; P < 0.002). The percentage of patients reaching the pre-defined target IOP was higher with travoprost than with latanoprost, independent of instillation time (81.9% versus 67.3% (P < 0.0001) when intake was the previous day, and 78.5% versus 68.3% (P < 0.03) when intake >24 hours. These differences persisted after adjustment for confounding factors. CONCLUSION: This observational survey confirmed the previous clinical data demonstrating that travoprost uniformly controls IOP through the day with a strong remnant effect, since IOP remains well controlled for more than 24 hours.

OBJECTIVES: The purpose of this study was to assess the incremental effect on intraocular pressure (IOP) reduction when changing from latanoprost-timolol fixed combination in the treatment of primary open-angle glaucoma (POAG).

METHODS: Retrospective analysis was conducted of the Glasgow Royal Infirmary Glaucoma database. The database was comprised of computerized medical records of all POAG patients treated at the Glasgow Royal Infirmary from 1981 to present. Data elements recorded for each patient included demographics, diagnosis, and treatment history. Treatment history included initial and subsequent medication regimens. Patient IOP was measured before and after treatment change and mean change with 95% C.I. was calculated. RESULTS: Eighty-three cases of POAG were identified where treatment was changed from evening dosed latanoprost to latanoprost-timolol once daily to achieve or maintain lower target IOP. The mean incremental reduction in IOP was 2.01 mmHg (95% C.I. 1.22–2.81). CONCLUSIONS: In POAG patients treated with latanoprost who require lower target pressures to control their disease, latanoprost-timolol fixed combination provides additional incremental IOP reduction. Additional research should be conducted further characterize and understand the importance of efficacy of combination therapy in the treatment of glaucoma.
A PUBLIC HEALTH IMPACT MODEL OF ANECORTAVE ACETATE IN WET AGE-RELATED MACULAR DEGENERATION

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OBJECTIVE: This study aimed at estimating the potential public health impact of Retaene 15 mg (anecortave acetate suspension) in age-related macular degeneration. METHODS: Based on clinical trial results and literature, a Markov model was built to compare anecortave acetate to best supportive care (BSC) during the lifetime of ARMD patients. Patients entering the model were 75 years of age with a new diagnosis of wet ARMD in one eye. This model took into account the efficacy of anecortave acetate to slow deterioration and delay visual disability, the probability for a patient to develop the disease in the fellow eye, and mortality. Results of the model were expressed in terms of duration of low vision (with blindness in one eye) and blindness in both eyes. Health consequences of blindness and low vision were estimated for depression and hip fractures as well as for institutionalization. Duration of the model was 25 years and the cycle length was 1 month. The fellow eye could be affected in 30% of the patients at five years. Premature mortality associated with blindness and low vision was estimated. RESULTS: Anecortave acetate decreased the number of prevalent blind cases by 20% and the average time with blindness by 30%. Depression prevalent cases were decreased by 21% and those with hip fracture by 10%. The number of patients who were institutionalized was decreased by 27%. Decrease in life expectancy due to premature mortality associated with blindness and low vision could be estimated at 17% in the BSC group and 15.5% in the anecortave acetate group. Life expectancy was increased by 3 months. CONCLUSION: Anecortave acetate presents important and favorable potential public health outcomes in patients with wet ARMD. According to the model, it could reduce the rates of depression, hip fractures and institutionalization, and increase life expectancy compared with BSC.

NUMBER OF TREATABLE EYES WITH WET SUB-FOveal AGE-RELATED MACULAR DEGENERATION (ARMD): USE OF DIRECT STANDARDIZATION AND MARKOV MODEL

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OBJECTIVE: To estimate the number of treatable eyes with wet sub-foveal ARM D in France. METHODS: Surveys documenting wet ARM D incidence rate were searched in the literature. Direct standardization according to age and gender was performed using INSEE demographic data. Projection at year 2025 was performed using OECD data. A 75 years old cohort was simulated using a 7-states Markov model. Mean treatment duration of New Chemical Entity is not known today and therefore was fixed arbitrarily at 2 years. The probability to develop ARM D in the fellow eye was fixed at 30% at 5 years. Monthly death incidence rate was modeled from INSEE mortality tables. The time horizon of the model was 25 years and the cycle length one month. Sensitivity analyses were performed. RESULTS: 3 surveys were identified. The Rotterdam Study, the only one performed in the EU, was chosen as the best proxy for France. In 2005, 30,192 citizens will develop ARM D in the first eye; of those 17,585 will be wet and 13,805 will be wet sub-foveal (Olsen, 2004). Taking into account the fellow eye, mortality and the base case scenario treatment duration, the number of wet sub-foveal treatable eyes would be 37,019. Treatment duration is the most sensitive parameter of the model. Number of eyes would be 18,899, 53,204, 67,535, and 80,162 for a treatment duration of 1, 3, 4 and 5 years, respectively. The number of treatable eyes will increase by 7.1% if probability to develop the disease in the second eye is 40%, and decrease by ~9.0% if it is 20%. A 2% yearly increase is expected till 2025 due to population aging and the 1950s’ baby-boom. CONCLUSION: According to our model, the number of sub-foveal wet ARM D treatable eyes would be 37,019, in France. Average treatment duration was the most sensitive parameter.

EYE ADVERSE EFFECTS ASSOCIATED WITH POLYVINYL ALCOHOL TEAR DROPS AFTER LASER ASSISTED SUBEPITHELIAL KERATECTOMY (LASEK)

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OBJECTIVE: LASEK is one of the current surgical technique to correct refractive errors of the eye, such as myopia, hyperopia, and astigmatism. In this method, the corneal epithelial flap is lifted then replaced after laser ablation of the subepithelial cornea. The hinged flap is created by epithelial marking and exposure of the marking ethyl alcohol (20%) for 5 seconds. METHODS: LASIK (Laser in Situ Keratomileusis) is a surgical procedure to correct myopia by corneal stroma subtraction. It involves the use of a microkeratome to make a lamellar dissection of the cornea creating a flap with intact corneal epithelium. After the flap is lifted, the underlying midstroma is reshaped with an excimer laser and the flap is returned to its original position. We have detected eighteen cases where the treatment of patients subjected to LASEK with polyvinyl alcohol artificial tear drops provoked eye adverse effects. Toxicogenic keratitis, partial epithelium detachment, and allergic and toxicogenic conjunctivitis were observed. These adverse effects disappeared upon discontinuing tear drops administration and reappeared after their reintroduction. We used the Naranjo et al. algorithm to confirm the cause-effect relationship. RESULTS: All cases were confirmed as definitive. CONCLUSION: We have not observed any case of eye adverse effect in patients subjected to LASIK caused by polyvinyl alcohol tear drops.

EFFECTIVENESS MODEL FOR AGE-RELATED MACULAR DEGENERATION: COMPARING MACUGEN TO VISUDYNE


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OBJECTIVE: To develop a health-economic assessment for Macugen, a new treatment for age-related macular degeneration (AMD). A comprehensive model compares Macugen (pegaptanib sodium), indicated for all patients with neovascular AMD, relative to the existing photodynamic therapy with Visudyne (verteporfin). METHODS: A Markov framework was used to model the lifetime movement of an AMD cohort through five...