efficacy than latanoprost in controlling the IOP for patients with ocular hypertension or glaucoma.

**PEY6**

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 ARM 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: The model was 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.

**PEY7**

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 ARMD in France. METHODS: Studies documenting wet ARMD 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 ARMD 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 ARMD in the first eye; of those 17,585 will be wet and 13,803 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 1950's baby-boom. CONCLUSION: According to our model, the number of sub-foveal wet ARMD treatable eyes would be 37,019, in France. Average treatment duration was the most sensitive parameter.

**PEY8**

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: LASEK (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 had been 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 LASEK caused by polyvinyl alcohol tear drops.

**PEY9**

COST-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
health states based on visual acuity (VA): >20/40, 20/40 to >20/80, 20/80 to >20/200, 20/200 to >20/400, and >20/400. The model incorporates patients across all lesion subtypes: predominately classic, minimally classic, and occult. All drug and procedure costs were derived from US published sources, including Medicare Part B Drugs Average Sales Price and RBRVS. Expert interviews were conducted to determine adverse events treatment patterns and vision rehabilitation resource use. Relative risks and costs associated with effects associated with declining VA (depression, bone fractures, skilled nursing facilities, and nursing homes) were extracted from a Medicare analysis. Transition probabilities were derived from published trial data for both products for each of the 3-month cycles. Utilities were derived from similar published sources as previous AMD models. Results are expressed as vision years, quality-adjusted life years (QALYs), medical costs and other costs, as well as the average cost per vision year and QALY gained. RESULTS: For a lifetime analysis the average cost per vision year was $20,459 for Macugen and $26,079 for Visudyne and the average cost per QALY was $19,609 for Macugen and $20,136 for PDT. A patient treated with Macugen had on average 3.68 vision years over a lifetime compared to 2.65 for a patient treated with Visudyne. CONCLUSIONS: Macugen treatment produces more years of sight than Visudyne for AMD treated patients. Macugen is more cost-effective versus active treatment with Visudyne. A limitation of the model is the absence of direct clinical comparison between the products.

COMBIGAN—COST-MINIMIZATION ANALYSIS OF BRIMONIDINE/TIMOLOL FIXED COMBINATION IN THE TREATMENT OF PRIMARY OPEN ANGLE GLAUCOMA

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OBJECTIVES: Many patients suffering from glaucoma find it necessary to use a second adjunctive topical agent to adequately reduce the intraocular pressure (IOP). New more convenient fixed combination products containing two active anti-glaucoma medications have been developed. The objective of this analysis is to compare the cost of brimonidine/timolol fixed combination (Combigan®) with concomitant administration of brimonidine (Alphagan®) and timolol, dorzolamide/timolol fixed combination (Cosopt®, and concomitant administration of dorzolamide (Trusopt®) and timolol. METHODS: RCTs have documented equivalent safety and efficacy in terms of IOP control of combination products in comparison with their individual components (Sall et al., 2003; Solish et al., 2004). A cost-minimization analysis including drug costs and visits at the ophthalmologist was carried out for UK and other European countries with both a health care and drug alone perspective. An RCT (Simmons et al., 2001) has shown that Alphagan+timolol was more effective than Trusopt+timolol in terms of patients achieving target IOP, therefore a cost-effectiveness analysis was constructed for this comparison. RESULTS: The 3-months health care costs analysis (drug alone) in the UK using Combigan was £264.00 (£30.00) compared with £268.11 (£34.11) for Alphagan+timolol and £264.15 (£30.15) for Cosopt. With a 12-months perspective, including additional drug and visits, the health care costs (drug alone) rose to £510.00 (£120.00) for Combigan compared with £526.44 (£136.44) for Alphagan+timolol and £510.60 (£120.60) for Cosopt. The cost-effectiveness analysis documented that Alphagan was more cost-effective than Trusopt adjunctively. CONCLUSION: Combigan provided better cost value than Alphagan+timolol adjunctively. The use of Combigan instead of Alphagan+timolol would result in annual societal savings of around £728,000 in the UK. Combigan resulted in slightly lower health care costs when modeling equal effectiveness compared with Cosopt.

PHARMACOECONOMIC ANALYSIS OF LATANOPROST VERSUS DORZOLAMIDE/TIMOLOL IN THE TREATMENT OF OPEN-ANGLE GLAUCOMA IN SPAIN

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OBJECTIVE: To estimate the efficiency of latanoprost against the fixed-combination of dorzolamide/timolol in treating patients with glaucoma in Spain. METHODS: A cost-minimization analysis was carried out by building a decision analytical model, because the effectiveness of both therapeutic options in lowering intraocular pressure (IOP) was similar in a performed systematic review of the literature. However, dorzolamide/timolol was associated with a higher incidence of adverse