structures vary by IOP threshold values. Day-time IOP control with PGAs is associated with night-time IOP control whatever the IOP threshold.

PEY2

INTRA-OCULAR PRESSURE CONTROL OF XALACOM ® (FIXED LATANOPROST AND TIMOLOL COMBINATION) AND DUOTRAV ® (FIXED TRAVOPROST AND TIMOLOL COMBINATION) IN DAILY PRACTICE

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OBJECTIVES: To confirm, in everyday practice, results from randomized clinical trials indicating that DuoTrav (a fixed travoprost and timolol combination) controls intra-ocular pressure (IOP) better than Xalacom (a fixed latanoprost and timolol combination), even when measured >24 hours after last instillation. **METHODS:** Patients with ocular hypertension or primary open angle glaucoma and treated by one of the above combinations were included in this cross-sectional study. Demographics, medical history and previous treatments were abstracted from medical records. IOP and treatment time were collected during an office visit. Analyses of variance, logistic regressions and propensity scores were used to adjust for confounding factors. **RESULTS:** In total, 328 patients were included, 127 treated with DuoTrav and 201 with Xalacom. The mean age was 64.6 years and 51.5% were female. Most (275: 84.6%) had last instilled treatment the previous day. Treatment groups were comparable except that Xalacom-treated patients had longer disease and treatment durations. Overall mean IOPs were 24.9 mmHg at diagnosis and 21.1 mmHg upon starting the fixed combination treatment. There was no significant difference between the groups as they started their second line therapy. Duotrav-treated patients experienced better IOP control (17.1 versus 19.1 mmHg: $p < 0.001$). A difference was also noted for patients who missed their last scheduled treatment (17.2 versus 20.1 mmHg: $p < 0.006$). Better IOP control with DuoTrav was further supported by patients whose last instillation was 9.00–12.00 hours before IOP measurement (16.5 versus 19.3 mmHg; $p < 0.001$). According to the practitioners, 83.1% of the DuoTrav-treated patients attained their IOP targets, as compared to 51.3% of Xalacom-treated patients ($p < 0.001$). All these differences persisted after adjustment for confounding factors. **CONCLUSION:** This everyday practice study paralled the published corresponding prostaglandin results of Topouzis and DuBiner, i.e. compared to Xalacom, IOP control with DuoTrav is better and has a longer residual effect when measured >24 hours later.

EYE—Cost Studies

PEY3

RANIBIZUMAB (LUCENTIS®) IS A COST-EFFECTIVE TREATMENT OF AGE-RELATED MACULA DEGENERATION (AMD) IN THE GERMAN HEALTH CARE SYSTEM

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OBJECTIVES: The rationale for this study was to provide data for the German health care system in order to investigate the assumption that ranibizumab is a cost-effective option for the treatment of neovascular AMD. **METHODS:** We modeled cost-effectiveness for ranibizumab-treatment of the patient's "better" eye based on the development of visual acuity in our phase III studies (ANCHOR/MARINA) compared to a control group who received best supportive care (e.g. visual aids, regular check-ups). In the base-case, we computed 6 treatments per year for 2 years and used the same patient entry age (77 years) and distribution of visual acuity of the model population as in our phase III studies. Utility values came from a study by Brazier et al. Costs and benefits were discounted annually at 5%. Costs of drugs and treatment procedures were determined based on German pharmacy retail prices, the German code book for physicians' fees (EBM 2000plus) and German DRGs. We conducted a sensitivity analysis in order to test the stability of our model assumptions. Variations of the base-case scenario included e.g. patient age: 50–85 years, visual acuity at start of therapy: btw. > 4.0 and 0.05–0.1 or duration of therapy: 1–3 years. **RESULTS:** The base-case scenario yielded the following costs per QALY: 16.882 € for predominantly classic lesions, 24.766 € for minimally classic chorioidal neovascularization (CNV) and 26.170 € for occult CNV. When weighing the costs per QALY according to the distribution of these lesion types (18%–25%–57%), the mean costs per QALY for the therapy of wet AMD with ranibizumab amount to 24.147 €. The treatment was cost-effective even under adverse conditions, e.g. longer treatment duration, high visual acuity at start of treatment, high patient age, increased costs per injection. **CONCLUSION:** Therapy of neovascular AMD with ranibizumab is cost-effective for all angiographic subtypes assuming a realistic variation of model parameters.

PEY4

COST-EFFECTIVENESS ANALYSIS OF FIXED COMBINATION THERAPIES GANFORT, DUOTRAV AND XALACOM IN EUROPEAN COUNTRIES

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OBJECTIVES: Ganfort is a fixed combination product containing bimatoprost 0.03% and timolol 0.5% indicated for lowering IOP of patients with glaucoma or ocular hypertension. Other fixed combination products such as Xalacom (latanoprost 0.005% and timolol 0.5%) and Duotrav (travoprost 0.004%and timolol 0.5%) are also available on the market. All products have the advantage of being more convenient for the patient due to once-daily administration. Since no head to head studies compare the three combination products, an indirect comparison is used based on available clinical data. The purpose was to investigate the cost-effectiveness of the three fixed combination therapies in eight European countries. **METHODS:** A systematic literature search was conducted in order to identify randomized clinical trials of Duotrav and Xalacom. Studies were selected which had reduction in IOP as primary endpoint and which were comparable with data from randomized controlled trials of Ganfort with respect to study design, diagnosis and patient population, so that an indirect comparison could be conducted. A decision analytic cost-effectiveness model was constructed. The cost evaluated was cost of medication and clinical visits to an ophthalmologist. All drug costs are market prices inclusive of VAT and visit costs are priced using official tariffs. Patients discontinuing treatment due to adverse events were assumed to change therapy and had an extra clinical visit. **RESULTS:** The cost-effectiveness analysis showed that the cost per percentage reduction in IOP was least costly for Ganfort. By using Ganfort therapy, savings per percentage reduction in IOP ranged from €0.06 to €0.22 compared to Duotrav and €0.02 to €0.36 compared to Xalacom. **CONCLUSION:** This analysis concludes that

Ganfort is more cost effective than Duotrav and Xalacom in UK, Denmark, Sweden, Norway, Finland, France, Italy and Spain. Thus, the cost per percentage reduction in IOP is lower for Ganfort compared to Duotrav and Xalacom.

PEY5

COST-EFFECTIVENESS MODELING OF LUCENTIS VERSUS USUAL CARE IN AGE RELATED MACULAR DEGENERESCENCE

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OBJECTIVES: To assess effectiveness, cost and cost-effectiveness of Lucentis versus current medical practices in age related macular degenerescence in France. **METHODS:** A simulation decision framework over 1-year time horizon compares a new specific agent "Lucentis" versus usual care using two effectiveness endpoints: "vision acuity improvement rate" (greater than 15 letters at the EDTRS scale) and "rate of legal blindness avoided". The two decision trees include various sequences of current therapies and laser treatment, including or not Lucentis. Data sources come from clinical data, literature and expert opinions for variability and uncertainty assumptions. Probabilistic sensitivity analyses were conducted taking into account specific distribution laws for each cost and effectiveness parameters. French costing data include direct medical costs, adaptative costs and social allowance in case of blindness. **RESULTS:** Rate of visual acuity improvement: Lucentis as first line agent is significantly more effective ($p < 0.001$), providing greater treatment success rate of visual acuity improvement than usual care (48.8% versus 33.9.1%). Direct medical costs is 9123 Euros over 1 year for Lucentis compared to 7604 Euros for usual care. Mean cost-effectiveness is 18721 Euros /success for Lucentis versus 22543 Euros/success for usual care ($p < 0.001$). Rate of legal blindness avoided: Lucentis as first line agent is significantly more effective ($p < 0.001$), providing greater treatment success rate of legal blindness avoided than usual care (99.6% versus 93.1%). Direct medical costs is 10493 Euros over 1 year for Lucentis compared to 8016 Euros for usual care. Mean cost-effectiveness is 10526 Euros /legal blindness avoided for Lucentis versus 8607 Euros/legal blindness avoided for usual care. **CONCLUSION:** Lucentis significantly improve the rate of visual acuity improvement and reduces the rate of legal blindness. Lucentis is significantly more cost-effective than usual care in term of visual acuity improvement.

PEY6

COST OF CATARACT SURGERY AFTER IMPLANTATION OF THREE INTRAOCULAR LENSES WITH SQUARE EDGES

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OBJECTIVES: To compare the lifetime costs of complications due to posterior capsule opacification after cataract surgery in three types of IOLs, namely two hydrophobic lenses SA60AT, AR40E and one hydrophilic lens the XL-Stabi. **METHODS:** Costs were estimated from the results of a retrospective study of patients who underwent cataract surgery in 2001 and 2002 as well as from data in the literature. Data were analysed after a minimum of 3 years post-surgery using Kaplan-Meier survival curve analysis with the end event being time to Nd:Yag laser capsulotomy. Costs were calculated using two methods of extrapolation. The economic perspective was that of the French Sickness Fund. **RESULTS:** After 3 years of follow-up, the percentage of patients who had undergone Nd:Yag laser capsulotomy was 12.0% with the SA60AT, 25.2% with the AR40E and 51.0% with the XL-Stabi lenses ($P < 0.001$). The total cost of capsulotomy and management of complications per patient lifetime was estimated to be 142.6 Euros for SA60AT, 273.4 Euros for AR40E ad 347.1 Euros for XL-Stabi using the first method of extrapolation, while using the second method of extrapolation, the costs were 242.8, 317.6 and 347.2 Euros, respectively. **CONCLUSION:** Lower costs for cataract surgery and management of related complications were observed with the SA60AT and AR40E IOL's with the lowest overall costs being observed in the SA60AT lens.

ES3

COST-EFFECTIVENESS OF FIRST EYE CATARACT SURGERY IN ELDERLY WOMEN: A RANDOMISED CONTROLLED TRIAL

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OBJECTIVES: Whilst the sight-restoring effects of surgery in patients with severe bilateral cataract are obvious, there has been a significant trend over the last two decades of performing cataract surgery at an increasingly earlier stage with a rising proportion having 6/12 vision or better at the time of listing. In these circumstances, the cost-effectiveness of surgery is open to question. Therefore, this study evaluated the cost-effectiveness of first-eye cataract surgery compared to no surgery from a Health Service and Personal Social Services perspective. **METHODS:** An economic evaluation was undertaken alongside a randomised controlled trial of first-eye cataract surgery in secondary care ophthalmology clinics. A total of 306 women over 70 years old with bilateral cataracts were randomised to cataract surgery (expedited, approximately 4 weeks) or control (routine, 12 months wait). Seventy-five percent of participants had baseline acuity of 6/12 or better. Health and social service contacts were collected at individual patient level from diaries ascertained at 3 and 9 months via telephone interviews, and at 6 and 12 months via face-to-face interviews. Outcomes included falls and Quality Adjusted Life Years (QALYs). **RESULTS:** The mean difference in cost between the operated and control group was ≤2004 (bootstrapped)(95% CI ≤1363 to ≤2833, $p < 0.001$) over one year (UK ≤ 2004). However, those in the operated group experienced, on average, 0.456 fewer falls, representing an incremental cost per fall prevented of ≤4390. The bootstrapped mean gain in QALYs per patient was 0.056 (95% CI 0.006 to 0.108, $p < 0.001$). The incremental cost utility ratio was ≤35,704, above the currently accepted UK threshold level of willingness to pay per QALY of ≤30,000. However, in a model of the costs and benefits over patients' expected lifetime, the incremental cost per QALY was ≤13,172, under conservative assumptions. **CONCLUSION:** First-eye cataract surgery, whilst cost-ineffective over the trial period, appeared cost-effective over participants' remaining lifetime.

PEY8

A EUROPEAN SURVEY OF PATIENT SATISFACTION WITH SPECTACLES AND THE ASSOCIATED COSTS IN FIVE EUROPEAN COUNTRIES

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OBJECTIVES: After 45–50 years of age, the vast majority of people have presbyopia, a loss of the ability to focus on near