**PES5**

## MODEL-BASED COMPARATIVE PHARMACOECONOMIC ANALYSES OF BIMATOPROST 0.03% IN THE TREATMENT OF GLAUCOMA OR OCULAR HYPERTENSION IN ADULT PATIENTS IN AUSTRIA AND FINLAND

Poulsen PB[1], Christensen TL[1], Holmstrom S[2], Buchholz P[3], Walt JG[4]

[1]MUUSMANN Research & Consulting, Kolding, Denmark; [2]Allergan, Mougins, France; [3]Allergan, Ettlingen, Germany; [4]Allergan, Irvine, CA, USA

**OBJECTIVES:** Glaucoma is a condition affecting one or both eyes with raised intraocular pressure (IOP). Target IOP should be reduced to 15 mm Hg to prevent progression of visual field loss. The objective of the present study was to perform and compare two country-specific cost-effectiveness analyses of bimatoprost 0.03% (Lumigan) compared with latanoprost 0.005% (Xalatan) as a second-line mono-therapy for glaucoma patients in Austria and Finland. **METHODS:** Revealing identical practice patterns in glaucoma treatment in Austria and Finland a decision model based on effectiveness and resource-use data from a multinational RCT was constructed. The RCT covered 269 adult patients with inadequately controlled IOP. In the model country-specific unit costs were used and cost-effectiveness was analysed from a societal perspective within a 12-months time horizon. The measure of effectiveness was "patients achieving target IOP". To handle uncertainty sensitivity analyses (one-way, break-even, extreme scenario) were undertaken. **RESULTS:** The RCT showed that 36% of the patients using bimatoprost achieved target IOP opposed to 22% using latanoprost. In the Austrian cost-effectiveness analysis bimatoprost (€2279 per patient achieving target IOP) showed to be cost-effective compared with latanoprost (€3917). With nearly identical ratios the same result appeared for Finland (bimatoprost: €2317; latanoprost: €3998). The relative decrease in the costs using bimatoprost was therefore 42% in both countries per patient achieving target IOP. The major reason to this difference was the extra need for adjunctive therapies using latanoprost. For all IOP-target levels in the range 12–18 mm Hg bimatoprost was cheaper and more effective (dominating strategy). **CONCLUSION:** Bimatoprost showed to be a more cost-effective second-line mono-therapy for glaucoma treatment in Austria and Finland. The study furthermore showed that at least for the two countries it seems possible to transfer cost-effectiveness results between countries and still arrive at the same recommendations for decision-making.

**PES6**

## ECONOMIC EVALUATION OF PHOTODYNAMIC THERAPY WITH VERTEPORFIN FOR SMALL SUBFOVEAL CNV LESIONS: THE CASE OF AUSTRALIA

Lees M[1], Davey PJ[1], Price N[1], Aldridge G[1], Mudge MAC[1], Stokes J[2]

[1]Medical Technology Assessment Group, Chatswood West, NSW, Australia; [2]Novartis Ophthalmics, North Ryde, NSW, Australia

**OBJECTIVE:** To assess the cost-effectiveness of photodynamic therapy (PDT) with verteporfin as treatment for subfoveal choroidal neovascularisation (CNV) with small lesions (≥4 macular photocoagulation study disc areas), relative to no treatment. **METHODS:** This analysis assesses the cost-effectiveness of PDT using verteporfin in patients with small subfoveal CNV lesions, based on results of two multicentre, double-blind, randomised, placebo-controlled trials (VIP and TAP). Data on visual acuity were collected for 24–48 months. Patients with visual acuity scores above the level of legal blindness in Australia (which is ≥34 letters) were defined as not blind. The proportion of patients not blind at each three-month interval was plotted on a "vision curve", which was extrapolated to 84 months. The area under this curve was calculated for each group. The difference in the area under the curve between groups represents the vision-years gained from treatment. A costing analysis was performed, based on an average of 3.4 treatments in the first year, 2.2 in the second year, 1.3 in the third year and 0.4 in the fourth year. Costs of nursing home, home and community care, falls and the disability pension considered to be due to visual decline were also included. **RESULTS:** Treatment using PDT with verteporfin results in a cost saving, relative to no treatment, of between $2909 and $4992 over the 7-year period, depending on assumptions made in the extrapolation of trial data. Over this period, between 1.801 and 2.194 vision-years were gained. Therefore, PDT with verteporfin is both less expensive and more effective than no treatment in this population. Sensitivity analyses demonstrated these results were robust to changes in the value of key variables. **CONCLUSIONS:** PDT with verteporfin represents a cost-effective intervention in the proposed population. There is currently no alternative therapy for patients with small subfoveal CNV lesions.

**PES7**

## COST-EFFECTIVENESS ANALYSIS OF CATARACT CONTROL IN 14 WORLD REGIONS

Baltussen R

World Health Organisation, Geneva, Switzerland

**OBJECTIVES:** Cataract is a major cause of blindness and of severe visual impairment leading to bilateral blindness in an estimated 20 million people worldwide. In developing countries 50–90% of all blindness is due to cataract. There are several possible approaches to removal of the cataract. This paper reports estimates of the population health effects, costs and cost-effectiveness of selected interventions in cataract surgery to restore eyesight in areas of the world with different epidemiologic profiles. **METHODS:** Effectiveness estimates are based on literature review taking into account factors such as oper-

ative failure, complications and patient non-compliance. A population model was applied to follow to the life-long impact of individuals receiving cataract surgery. Costing estimates are based on primary data collection in 14 epidemiological sub-regions by regional costing teams and literature review, and were estimated for different coverage levels using non-linear cost functions. **RESULTS:** Intra- and extra-capsular cataract surgery are cost-effective ways to reduce the impact of cataract-blindness. Extra-capsular cataract surgery is more cost-effective than intra-capsular surgery in all regions considered, and higher coverage levels are always more cost-effective than lower coverage levels. Extra-capsular cataract surgery at a 95% coverage level would avert over 3.8 million disability adjusted life years per year globally. The cost-effectiveness ranges from I$69 per DALY in SearD (South East Asian Region with high child and adult mortality) to I$2341 per DALY in WprA (Western Pacific Region with low child and adult mortality). **CONCLUSIONS:** In cataract surgery, extra-capsular surgery at high coverage level is the most cost-effective way for restoring eyesight.

**PES8**

### BURDEN OF ILLNESS OF ECZEMA IN CANADA

Barbeau M, Lalonde H
Novartis Pharma Canada Inc, Dorval, QC, Canada

**OBJECTIVES:** As no Canadian data exist yet, the objective of the study is to determine the burden of illness of patients suffering from eczema in Canada. The resource use, direct costs, indirect costs, demographics and other factors affected by eczema were measured over a 1-year period. **METHODS:** Patients were recruited through Community Pharmacists in Canada and were asked to fill out a four-page survey. Information about gender, age, marital status, employment status, income, healthcare practitioner visits, other medical services visits, hospitalization, absenteeism at work/school, over-the-counter (OTC) treatment, household expenses, sleep disturbances, severity and duration of the disease, number of flares and length of each flare and type of insurance coverage were collected. Costs were attached to the different variables to calculate the burden of illness of eczema for the whole cohort but the group was also divided by disease severity. **RESULTS:** Over 100 patients were recruited and more than 70 patients have returned the survey to this point. Each patient has visited a physician due to his/her eczema at least once in the last 12 months. The two variables that have had the most impact on the cost of the disease are the consumption of OTC medications and the extra household expenses incurred by the patient. As expected, the burden increases with the severity of the disease. Nobody was hospitalised due to their eczema. **CONCLUSIONS:** Taken individually, the economic burden of eczema is not exceptionally high but given the prevalence of the disease it represents a high burden for the society. The results are within the range of what has been published until now. Prescription costs were not measured directly in this survey and thus the results are most likely underestimated.

## EYE & SKIN DISEASES/DISORDERS—Quality of Life/Preference Based Outcomes

**PES9**

### A BASELINE ASSESSMENT OF THE VALIDITY OF THE 39-ITEM NATIONAL EYE INSTITUTE VISUAL FUNCTION QUESTIONNAIRE IN GERMAN PATIENTS WITH AGE-RELATED MACULAR DEGENERATION

Lustig SP[1], Reichel MB[2], Cappelleri J[1], Clouse B[1], Getter CA[1], Chisholm JA[1]
[1]Pfizer Inc, Groton, CT, USA; [2]Universitätsaugenklinik, Leipzig, Germany

**OBJECTIVES:** To investigate the validity of the 39-item National Eye Institute Visual Function Questionnaire (NEI-VFQ-39) at baseline in German patients with age-related macular generation (AMD). **METHODS:** Ongoing prospective observational study in which 137 patients attended a clinic in Germany. Patients belonged to one of 3 severity classes: 1) early AMD in both eyes (n = 25); 2) late-stage AMD in one eye and early-stage AMD in the other eye (n = 71); and 3) late-stage AMD in both eyes (n = 41). Correlations of baseline scores were calculated between NEI-VFQ-39 and visual acuity. Baseline mean scores on the NEI-VFQ-39 were compared for different AMD severity using linear regression adjusting for gender, age, education, and smoking. **RESULTS:** Scores on visual acuity correlated moderately, as expected, with NEI-VFQ-39 domain scores on General Vision ($r = 0.48$), Near Activities ($r = 0.52$), Distant Activities ($r = 0.46$), and Peripheral Vision ($r = 0.44$). As expected, visual acuity correlated modestly though meaningfully with Social Functioning ($r = 0.31$), Mental Health ($r = 0.31$), Role Difficulties ($r = 0.36$), Dependency ($r = 0.38$), Driving ($r = 0.34$), and Color Vision ($r = 0.30$); visual acuity showed little or no correlation with General Health ($r = 0.13$) and Ocular Pain ($r = -0.09$). Significant differences ($p < 0.01$) in mean scores among severity levels of AMD were observed for all NEI-VFQ-39 domains except for domains on Driving, General Health, and Ocular Pain. **CONCLUSIONS:** The German version of the NEI-VFQ-39 exhibits baseline validity as a measure of functional impairment in patients with AMD.

**PES10**

### PATIENT REPORTED OUTCOMES AND ECONOMIC IMPLICATIONS OF A REFORMULATION TO IMPROVE BRIMONIDINE 0.2%

Walt JG, Lee J
Allergan, Irvine, CA, USA

**OBJECTIVES:** To assess patient satisfaction and economic implications associated with a new formulation of