COSTS AND CONSEQUENCES OF OLOPATADINE 0.1% VERSUS CROMOLYN SODIUM 2% IN THE TREATMENT OF SEASONAL ALLERGIC CONJUNCTIVITIS

Lafluma A1, Fagnani F1, Nuijten M2, Berdeaux G1
1Cemka, Bourg-La-Reine, France; 2Medtap International, Jisp, Netherlands; 1Alcon, Rueil-Malmaison, France

OBJECTIVE: The aim of this study was to compare the costs and clinical consequences of olopatadine, a new topical chemical entity with a dual mechanism of action (anti-histamine and mast cell stabilizer) to those of topical cromolyn sodium (CS) in the treatment of seasonal allergic conjunctivitis in Belgium, France, Germany, Netherlands, Portugal, Portugal and Sweden.

METHODS: A randomized, controlled, double-blind, multi-country clinical trial compared the efficacy and safety of olopatadine 0.1% bid and cromolyn sodium 2% qid. An economic comparison of first-line and first-line failure treatments with olopatadine versus CS was modeled using clinical trial results and a standard cost approach. A societal perspective was adopted. Cost of failure was established from Pinto (2001).

RESULTS: A total of 185 patients (91 olopatadine, 94 CS) presenting with SAC were treated over 42 days. At day 42, olopatadine-treated patients had lower itching ($P < 0.05$) and redness ($P < 0.05$) scores. The first-line, treatment-failure rate was 12.5% less ($P < 0.02$) in olopatadine-treated patients. Olopatadine patients had a 1.6 greater chance ($P < .0001$) of having a day without symptoms, from day 1 to day 42. Olopatadine was as safe as CS and well tolerated. According to Pinto, cost of failure varied across countries from €48 to €72. Savings per episode due to avoiding failures with olopatadine were €7.00 in Belgium, €8.68 in France, €8.66 in Germany, €6.12 in NL, €6.02 in Norway, €8.43 in Portugal and €8.96 in Sweden. Sensitivity analyses were conducted which confirmed the robustness of our findings.

CONCLUSION: Based on results of a randomized clinical trial, and resources and costs associated with failure estimated from the literature, our model found that olopatadine is a cost-saving alternative to CS and offers more clinical benefits to patients. Results were consistent over all study countries.

PEE4

WELFARE COSTS OF VISUAL IMPAIRMENT

Remak E1, Chambers M1, Kennedy-Martin T2
1Medtap International, London, UK; 2Lilly, Surrey, UK

OBJECTIVE: The burden of sight impairment on government’s welfare care budgets is large, and generally greater than the associated health-care costs. The objective of this study was to summarise and quantify the range of welfare and social care benefits available to individuals with sight impairment in nine countries.

METHODS: Local language literature searches, interviews with representatives of benefit agencies, patient organisations, and clinical experts using a standard set of questions adapted to local circumstances. ‘Typical’ cases were defined according to age, family support and level of impairment.

RESULTS: Clinical criteria (e.g. visual acuity), functional state or both may determine eligibility for benefits. Basic monthly disability benefits reported, ranged from $135 (UK) to $479 (Germany). Countries with lower values (UK, Sweden) provide a wider range of services free at the point of use or higher benefits related to income or inability to work. Higher levels of benefits in other countries are intended to cover direct purchase of services. Benefits covering inability to work range from $135 (Spain) to $793 (Sweden), and for caring responsibilities from $226 (UK) to $773 (France) per month. In most countries the range of services/benefits for ‘typical’ cases could be assessed.

CONCLUSION: Multinational studies assessing the economic impact of sight impairment face problems due to the fragmentation of payments and services across organisations within each country, different financing structures and systems of payment/service organisations in different countries, and a lack of centrally held information about numbers of claims in relation to the underlying condition. It is necessary to tailor prospective studies to the welfare systems in each country in order to capture such costs and to ensure relevance of economic arguments to the local environment. Decision-makers should be encouraged to use the results of a wider economic perspective when considering interventions preventing or delaying the progression of visual impairment.

PEE5

COSTS AND CONSEQUENCES OF LASIK, GLASSES AND CONTACT LENSES IN MILD TO MODERATE MYOPIA—A SPANISH SOCIETAL APPROACH

Alio y Sanz J1, Martinez J2, Magaz S1, Badia X1, Berdeaux G4
1Instituto Oftalmologico de Alicante, Alicante, Spain; 2Instituto Oftalmologico de Alicante, Alicante, Spain; 3Health Outcomes Research Europe, Barcelona, Spain; 4Alcon, Rueil-Malmaison, France

OBJECTIVE: To compare the costs and consequences of three strategies for correction of mild to moderate myopia: laser in situ keratomileusis (Lasik), glasses and contact lenses (CL).

METHODS: A Markov model compared the present value of Lasik, glasses and CL. A structured questionnaire was administered to 40 patients to collect resource utilization data including direct medical and indirect non-medical costs (transportation, time spent, hotel, spectacles, CL, Lasik, cleaning stuff, visits to ophthalmologist, optometrist, optic centre, and adverse events linked to Lasik and CL). Time horizon varied from 10 to 30 years with a 5% discount rate. The economic perspective was that of the Spanish society. Full sensitivity analyses were conducted.
RESULTS: Depending on the time horizon, Lasik saved from 18 to 278 km of distance to care centres against spectacles and from 405 to 1,436 km against CL. Time spent to care for visual acuity was found similar between Lasik and CL but up to 1180 additional hours were spent by CL wearers. Lasik saved from 4.69 to 12.07 spectacles and from 28 to 84 cleaning packs, 18 to 50 visits to the optic centre in comparison to glasses and 41 to 117 visits when compared to CL. Lasik saved 4.7 to 12.2 visits for correcting VA versus glasses or CL. Lasik avoided 95 to 295 per 10,000 cases of CL-related keratitis. CL were always more costly than Lasik which was always more costly than glasses. The difference between glasses and Lasik were from €1,595 to €2,521, and savings were from €2,277 to €7,905 in comparison to CL.

CONCLUSION: Our study found that the Lasik strategy was cost saving in comparison to CL strategy and more expensive than the glasses strategy, without accounting for potential non-monetary benefits of Lasik over glasses.

PEE6

PROSTAMIDES VS. COMBINATION PRODUCTS FOR GLAUCOMA TREATMENT: EFFECTIVENESS AND COST CONSIDERATIONS
Evans S1, Doyle J1, Casciano J1, Steeds C1, Walt J1
1The Analytica Group, New York, NY, USA; 2Allergan Ltd, Buckinghamshire, UK; 3Allergan Inc, Irvine, CA, USA

OBJECTIVE: Prostamides have recently been introduced for the treatment of glaucoma patients. We wanted to understand and evaluate the effectiveness and cost of new anti-glaucoma medications and study the potential cost-savings role that newer therapies may play in the prevention of glaucoma progression to blindness. In this study, estimated effectiveness and costs of a prostamide and a representative from another fairly new category of anti-glaucoma medications, the combination products, were compared from a payer perspective.

METHODS: A pharmacoeconomic model was constructed based on a three-month randomized controlled efficacy trial comparing Lumigan (bimatoprost 0.03%, a new synthetic prostamide) and Cosopt (a fixed combination product of timolol 0.5% and dorzolamide 2.0%). The clinical trial evaluated the percent of patients achieving various target intraocular pressures (IOPs) throughout the day, and the cost of treatment to achieve target calculation was based on the estimated effectiveness from the trial. Total expected annual treatment costs included direct costs of both medications and ophthalmology visits.

RESULTS: With bimatoprost, 30% of patients (N = 27) reached and maintained a target IOP < 17 mm Hg for all measurements throughout the day vs. 17% with the combination product (N = 15; p < .05). Average expected annual treatment costs, incorporating the costs of treatment success and failure (requiring additional medications and office visits) were €485 vs. €471 for bimatoprost vs. the combination product, respectively. Cost-effectiveness, calculated as medication cost/expected effectiveness, based on patients achieving a target IOP at three months of < 17 mm Hg, was €139 vs. €190 for bimatoprost vs. the combination product, respectively.

CONCLUSION: Annual expected treatment costs for prostamides and combination products are similar. However, when cost-effectiveness is considered, due to a greater percentage of glaucoma patients achieving ideal target treatment goals with prostamides, prostamides appear to be more cost-effective than combination products.

PEE7

THE BURDEN OF AGE-RELATED MACULAR DEGENERATION—RESULTS OF A COHORT STUDY IN TWO FRENCH REFERRAL CARE CENTERS
Bonastre J1, Le Pen C2, Soubrane G3, Quentel G4
1Clp-santé, Paris, France; 2Université Paris Dauphine, Paris, France; 3Centre Hospitalier Intercommunal de Créteil, Créteil, France; 4Centre ophthalmologique d’Imagerie et de Laser, Paris, France

OBJECTIVE: The objective was to describe the socioeconomic impact of age-related macular degeneration (AMD) and to assess, on a yearly basis, its medical and social costs.

METHODS: A multicenter observational study was carried out in a sample of 105 patients. Two ophthalmic referral care centers participated in the study. All subsequent patients who consulted during a three-week period were included provided they presented the following criteria: > 60 years of age; an exudative form of AMD with a distance visual acuity in the best eye < 0.5. Data collected included clinical items, treatment, medical follow-up and transportation costs. The impact of AMD on the living conditions and welfare payments related to visual impairment were also recorded. A payer perspective was used. Age and severity of disease were examined as cost factors.

RESULTS: Mean age was 79.3 years and ranged from 62.8 to 95. Median distance visual acuity in the best eye was 0.16 and average length of evolution was 3.5 years. Over a three-month period, patients had an average of 2.6 visits to the ophthalmologist. Thirty percent of the patients received vascular medications and 72.4% had received previous photocoagulation treatment. Only 10% had benefited from visual rehabilitation. Hospitalizations were rare (3%). AMD annual cost per patient was €3,872.99 [3,163.19; 4,582.80]. Fifty percent of this was attributed to medical costs. Other major cost components were home help at €904.94 [485.40; 1,324.33] and transportation costs for care at €542.72 [154.28; 931.16]. Total cost increased with age and with the loss of visual acuity.

CONCLUSION: This study assesses the cost of resources consumed, and probably underestimates the burden of AMD. Indeed, the need for assistance in every day life is important. Related costs being supported by the patient, the recourse to expensive aids is very limited.