

Abstracts

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intraocular pressure (IOP)-lowering efficacy in patients with open-angle glaucoma. The purpose of this study was to carry out a cost-effectiveness analysis of latanoprost versus timolol, bimatoprost and travoprost in the treatment of glaucoma in Spain. **METHODS:** A cost-effectiveness analysis was performed by building a decision analytical model. Effectiveness data (treatment success was defined as patient with successful IOP control: ≤ 18 mmHg) were obtained from published clinical trials measuring IOP-lowering of drugs under evaluation. Health care resource utilization was taken from the aforementioned clinical trials and a local expert panel. Only direct medical costs were included in the model (drug acquisition, diagnostic procedures, ophthalmologist visits and treatment of therapeutic failures). Drug acquisition cost data were obtained from official sources while the rest of the data were taken from a national health care costs database. The perspective selected for this analysis was the National Health Service and the time horizon chosen was for 6 months, the time that patients were included in most of the clinical trials found. **RESULTS:** Cost per patient associated with the use of timolol, latanoprost, bimatoprost and travoprost was 368€, 379.5€, 377€, and 383€, respectively while their cost/effectiveness ratio was 1116, 702, 785, and 912€ per each patient with a treatment success. The incremental cost-effectiveness ratio of using latanoprost compared to timolol, bimatoprost and travoprost was 54, 40, and -32€ per each additional patient achieving optimal IOP control. **CONCLUSIONS:** The results of this pharmacoeconomic model demonstrates that latanoprost is a more cost-effective option than the rest of evaluated alternatives. Therefore, latanoprost should be considered as the therapeutic option to be selected routinely in the treatment of open-angle glaucoma in Spain.

PES6

COST EFFECTIVENESS OF LATANOPROST IN FIRST LINE TREATMENT OF PRIMARY OPEN ANGLE GLAUCOMA IN THE UK

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OBJECTIVES: To estimate the cost effectiveness of first-line latanoprost treatment for POAG compared with beta-blockers, travoprost or bimatoprost using a previously developed economic model. **METHODS:** A decision analytical model was developed where POAG patients either receive latanoprost, beta-blockers, travoprost or bimatoprost as first-line therapy. Subsequent therapy switches were determined by average time that patients persisted with each therapy. Persistency data was obtained from a retrospective cohort study (Reardon, 2004). IOP controlled days are estimated from this by assuming that switching therapy implies failure to control IOP for half the time on therapy. Resource use was obtained from UK expert opinion and included ophthalmologist consultations, drug usage and glaucoma surgery. The NHS perspective was taken and included direct costs only (NHS 2002 reference costs inflated to 2003 prices using HCHS inflation index, PSSRU 2003, MIMS 2004). A one-year time horizon was used to capture all relevant resource use and to assess main clinical outcomes. **RESULTS:** The model estimates that for a cohort of 1000 patients, first-line treatment with latanoprost results in 10,397, 14,341, and 17,142 more days of IOP control than patients treated initially with a beta-blocker, travoprost or bimatoprost respectively. Compared with beta-blockers, first-line latanoprost therapy reduces management and surgical costs. Overall treatment costs are higher for travoprost (£29,597 more) and bimatoprost (£36,650 more) compared with first-line latanoprost therapy due to higher rates of subsequent therapy and surgery. **CONCLUSIONS:** Overall,

compared to other prostaglandins and beta-blockers, latanoprost first-line therapy results in greater benefit to patients in terms of more days of IOP control. Latanoprost first-line therapy compared with travoprost and bimatoprost results in greater persistency and lower costs.

PES7

A PHARMACOECONOMIC ANALYSIS OF THE FIXED COMBINATION LATANOPROST/TIMOLOL VERSUS DORZOLAMIDE/TIMOLOL IN THE TREATMENT OF PATIENTS WITH GLAUCOMA IN SPAIN

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OBJECTIVES: Latanoprost/timolol is one of the fixed-combination more used in daily medical practice to treat glaucoma. The aim of this analysis is to carry out a pharmacoeconomic evaluation of two fixed-combinations: latanoprost/timolol (L-T) compared to dorzolamide/timolol (D-T) as second line treatment in patients with glaucoma in Spain. **METHODS:** A cost-effectiveness analysis was performed by building a decision analytical model. Effectiveness data (patient with an IOP reduction at least of $>25\%$) were obtained from a multicenter-randomized trial showing that the L-T combination had significantly better efficacy in reducing IOP than D-T combination[1]. Health care resource utilisation was taken from the aforementioned clinical trial and a local expert panel. Only direct medical costs were included in the model. Drug acquisition costs were obtained from official sources, while the rest of data were taken from a national health care-cost database. The perspective selected for this analysis was the National Health Service and the time horizon chosen was for 3 months, the time that patients were followed up in the referenced clinical trial. **RESULTS:** The percentage of patients with a good control of IOP was higher with L-T combination (80 vs 65%, $p < 0.01$) and the cost/effectiveness ratio was lower with L-T combination than with D-T combination: 719 vs 840€ per each patient with a treatment success. The incremental cost-effectiveness ratio of using L-T combination compared to D-T combination was 196€ per each additional patient achieving optimal IOP control. **CONCLUSIONS:** This model demonstrates that L-T combination is a more efficient therapeutic option than D-T combination. Therefore, L-T combination should be considered as the second line therapy to be selected routinely when IOP cannot be reduced appropriately with only a drug in Spain. [1] Shin DH, Feldman RM, Sheu W-P. Ophthalmology 2004;111:276-82.

PES8

RESOURCE UTILIZATION OF END-STAGE GLAUCOMA PATIENTS RECEIVING LOW VISION CARE: A US MULTI-SITE RETROSPECTIVE STUDY

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OBJECTIVES: To estimate resource utilization and costs of end-stage glaucoma patients receiving low vision care (LVC) via a multi-center retrospective cohort design. **METHODS:** A random sample of 61 open-angle glaucoma charts from 2 US LVC facilities with ophthalmologic follow-up was retrospectively reviewed. Patients with a diagnosis of primary open-angle glaucoma were followed for at least two years within the time window from 1998-2003. Clinical and economic data were abstracted beginning with initial low vision visit. Clinical data collected included: patient demographics, baseline medical and