Abstracts

A COST-EFFECTIVENESS ANALYSIS OF TWO TOPICAL OPTHALMIC ANTIBIOTIC SOLUTIONS INDICATED FOR THE TREATMENT OF BACTERIAL CONJUNCTIVITIS

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OBJECTIVE: The objective of this study was to compare the cost-effectiveness of moxifloxacin 5 mg/ml ophthalmic solution (MF) to polymyxin B 10,000 units/trimethoprim 1mg/ml ophthalmic solution (PT) for the treatment of bacterial conjunctivitis (BC). METHODS: Physician-assessed BC early clinical cure rates were taken on day-2 of 7 day therapy from a multi-site, randomized, double-masked study comparing MF to PT. The clinical cure rates were used to calculate a number-needed-to-treat (NNT) estimate for the most efficacious alternative. NNT was then used as the measure of effect in an incremental cost-effectiveness analysis. Only the direct costs of drug therapy were considered in the economic analysis. The drug costs were derived from a standard reference source. The economic perspective was that of the payer. No cost discounting was performed due to the short time horizon of BC therapy. RESULTS: Thirty-two subjects (47 eyes) received MF and 30 subjects (43 eyes) received PT. At baseline there were no statistical differences in BC severity or patient age, gender or ethnicity between the two treatment groups. After 2 days of topical ophthalmic antibiotic therapy, 83.3% of the MF patients were deemed clinically cured compared to 43.2% of the PT patients. The NNT for the MF group was estimated at 2.5. The MF incremental cost-effectiveness ratio (ICER) for Lucentis 0.5 mg relative to Lucentis 0.3 mg was $62,905/QALY. For patients with minimally classic or occult AMD, Lucentis 0.5 mg was a dominant strategy compared to PDT and the Incremental Cost-Effectiveness Ratio (ICER) for Lucentis 0.5 mg relative to Lucentis 0.3 mg was $322,367/QALY. Influential variables driving the results in this analysis include a patient’s baseline visual acuity, costs associated with visual impairment, and the price of Lucentis. CONCLUSION: Despite its high treatment costs, Lucentis is a dominant strategy compared to PDT and best supportive care primarily because it prevents patients from reaching the highly expensive state of blindness. Treating AMD patients with Lucentis before they reach a legal blindness state can generate considerable cost-savings to society.

ECONOMIC EVALUATION OF MELOXICAM SOLUTION 0.030% RESPECT AN OPHTALMIC SODIUM DICLOFENAC SOLUTION 0.1% ON THE EYES OF PATIENTS WHO UNDERWENT TO LASIK LASER EYE SURGERY AT THE IMMEDIATELY POST-OPERATIVE TIME

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OBJECTIVE: To compare the effectiveness and costs of the administration of an ophthalmic Meloxicam solution 0.030% with a sodium Diclofenac solution 0.1% on the eyes of patients who underwent to Lasik laser eye surgery at the immediately post-operative time. METHODS: Using the perspective of a health care payer, we developed a cost-effectiveness analysis. Temporary horizon was three months. A discounting rate was not used. The source of information of cost and effectiveness was a randomized clinical trial. The perspective was from Mexican Institute of Social Security. The method used for cost was microcosting and case mix. The effectiveness was measured with different end points. The cost-effectiveness analysis was made for those variables with statistically significant differences. The evaluation was made with incremental analysis and net benefits approach. The sensitivity analyses was of one way, two ways and probabilistic. RESULTS: The highest cost was with Diclofenac solution (USD$9.29) that was 5.9% higher than Meloxicam ($8.74) the measured efficacy named Flare and ciliary injection was superior with Meloxicam compared with Diclofenac 148 vs. 149 for Flare and 150 vs 153 respectively (p < 0.0001) for ciliary injection, the cost for success obtained with Meloxicam was of USD$8.74 and USD$9.29 with Diclofenac, the incremental analysis show that Meloxicam is dominant over Diclofenac. CONCLUSION: Meloxicam solution was dominant over Diclofenac in the application on the ocular surface in patients who underwent to Lasik laser eye surgery in the immediate postoperative period. The sensitivity analysis was a robust basis for the study.

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COST-EFFECTIVENESS OF THE BIOLOGIC AGENTS UTILIZED IN THE TREATMENT OF CHRONIC PLAQUE PSORIASIS: A MARKOV MODEL

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OBJECTIVE: It is the objective of this study to estimate the cost per treatment success over a one-year timeframe of the five biologic therapies used to treat patients with moderate to severe psoriasis in the United States. METHODS: A Markov model was developed to compare the relative cost components in psoriasis treatment with biologics. Drug costs were based on wholesale acquisition cost with consideration of net contractual discounts and patient co-share or co-payment. Clinical efficacy, for both short-term (12 weeks) and longer-term (24+ weeks) treatment, was based on the published peer-reviewed literature. The primary economic endpoint was the cost of therapy (defined as the cost of drugs, laboratory, infusion, and professional services) per 75% improvement from baseline in the Psoriasis Area and Severity Index score (PASI 75) achieved. Analysis was conducted for each