RESULTS: The reported SG, TTO, EuroQol, and RS utilities were on average 0.89, 0.88, 0.70, and 0.69. The RS utility as it would be without heartburn was 0.84. The prediction models showed that the EuroQol and RS utilities were negatively related to heartburn severity and frequency. A logarithmic transformation of heartburn frequency described the functional relationship between frequency and utilities best. The EuroQol, SG, and TTO utilities increased with age. Women reported lower EuroQol and RS utilities and higher SG utilities than men did. German patients reported lower RS utilities than Swedish patients did. The predicted EuroQol (and RS) utilities by severity of heartburn were 0.75 (0.72), 0.67 (0.67), and 0.50 (0.61).

CONCLUSION: Our results indicate that patients assign substantial disability to heartburn. The results also indicate that utilities may be predicted from heartburn severity and frequency and other patient characteristics. The assessed utilities and the prediction models may provide a basis for future cost-utility analyses of GERD interventions.

ALLERGY, EYE, EAR & SKIN DISEASES/DISORDERS

PEE1

LONG TERM CLINICAL CONSEQUENCES OF Nd:YAG LASER CAPSULOTOMY FOLLOWING POSTERIOR CAPSULAR OPACIFICATION AFTER CATARACT SURGERY — A MARKOV MODEL APPROACH

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OBJECTIVE: Posterior Capsular Opacification (PCO) is the most frequent long-term complication of cataract surgery with some different incidence rates across the intraocular lenses (IOL). PCO is treated with Neodimium:Yag (Nd:Yag) laser. The aim of this model was to evaluate the clinical long-term consequences of Nd:Yag laser capsulotomy complications over the patient’s life.

METHODS: A 19-state Markov model was constructed including the 14 states describing the Nd:Yag laser complications reported in the literature: PCO; Nd:Yag laser; post Nd:Yag laser; blindness and death. Probability to die was modeled from national mortality tables as a polynomial function of gender and age. Probability to become blind was modeled as a function of age from literature data. Incidence of Nd:Yag complications came from the literature. The shape of the long term Nd:Yag laser use incidence-survival curve was modeled from a cohort of 3335 patients with a maximum follow-up of 10 years. Parameters of the modified Rayleigh function were estimated according to least square mean method. Full sensitivity analyses were conducted.

RESULTS: Switching a whole 70-year old population (1 male:1 female) from a 20% Nd:Yag laser incidence rate of IOL at 3 years to 5% would avoid one chronic intraocular pressure increase every 34 to 66 surgeries, one visual acuity decrease every 111 to 137 surgeries, one glaucoma every 238 to 292 surgeries, one cystoid macular oedema every 265 to 326 surgeries, one retinal detachment every 265 to 326 surgeries over the patient’s life. A three year clinical study would only capture one third to one half of the long term Nd:Yag adverse events.

CONCLUSION: Based on the results of this Markov model, long term use of Nd:Yag laser being estimated on a 10-year follow-up cohort, PCO rate is reduced, and therefore the use of Nd:Yag laser might contribute to preserving patient’s visual acuity over their full life.

PEE2

COSTS AND CONSEQUENCES OF OLOPATADINE 0.1% VERSUS LEVOCABASTINE 0.05% IN THE TREATMENT OF SEASONAL ALLERGIC CONJUNCTIVITIS

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OBJECTIVE: The aim of this study was to compare the costs and clinical consequences of olopatadine, a NCE with a dual mechanism of action (anti-histamine and mast cell stabilizer) with topical levocabastine for the treatment of seasonal allergic conjunctivitis (SAC) in Belgium, France, Germany, Netherlands, Norway, Portugal and Sweden.

METHODS: A randomized, controlled, double-blind, multi-country clinical trial compared the efficacy and safety of olopatadine 0.1% bid and levocabastine 0.05% qid. An economic comparison of first-line treatment failures with olopatadine versus levocabastine was modeled using clinical trial results and a standard cost approach. A societal perspective was adopted. Indirect resource utilization estimated from the clinical trial. Cost of failure was estimated from Pinto.

RESULTS: 210 patients (101 olopatadine, 109 levocabastine) with SAC were treated over 42 days. At day 42, olopatadine-treated patients had a lower redness score (P < 0.05) while the difference in itching scores was close to statistical significance (P = 0.062). The first-line treatment-failure rate was 15.8% less (P < .01) in olopatadine-treated patients. Olopatadine patients had a 1.47 greater chance (P < .0001) of having a day without symptoms. Olopatadine was well tolerated. Time lost due to SAC was lower than 1 hour on average. Cost of failure varied across countries from €48 to €72 . Savings per episode due to first-line failures avoided with olopatadine were €8.84 in Belgium, €10.97 in France, €10.94 in Germany, €7.74 in NL, €7.61 in Norway, €10.65 in Portugal and €11.33 in Sweden. Sensitivity analyses 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 levocabastine and provides more clinical benefits to patients. Results were consistent over all study countries.