the genetic test resulted in an incremental cost-effectiveness ratio was $32,633 per QALY gained. Sensitivity analysis produced results ranging from increased costs of $300,430 and 3.6 additional cases of severe periodontitis (per one thousand patients) to cost savings of $830,140 and 52.8 fewer cases of severe periodontitis. Sources of uncertainty were 1) patient compliance based on test result, 2) effectiveness of non-surgical therapy, and 3) the relative risk for progression based on genotype. CONCLUSION: The use of genetic testing to guide treatment for periodontitis may result in a wide range of outcomes under different modeling scenarios. These results range from improved patient health and cost-savings to additional costs and poorer health. Economic modeling has identified the additional data required to determine if IL-1 testing can be implemented in a primary care setting in a cost-effective manner. These methods may be used by the health insurance industry to assess the cost-effectiveness of genetic testing for predisposition towards other diseases.

**PEE3**

**DRY-EYE RELATED INCREASES IN HEALTH CARE UTILIZATION AND EXPENDITURES**

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**OBJECTIVE:** This study investigates the incremental cost of dry eye disease (keratitis sicca) in a managed care population. **METHODS:** Patients with dry eye diagnoses (ICD-9-CM = 370.33, 375.15, 710.2) or punctal occlusion procedures (CPT-4 = 68760, 68761) during 1997–1998 were identified from PharMetrics’ Integrated Outcomes database of 7 million patients. Controls were randomly selected and matched 1:1 to dry eye cases on age, gender, and managed care plan. Costs were calculated for 6 months before and after the first dry eye-related claim for cases, or the midpoint of claims history for controls. **RESULTS:** The prevalence of dry eye disease was 0.48% in 1997 and 0.39% in 1998. Dry eye patients (n = 31,683) were more likely than controls to use ophthalmic medications, many of which are not indicated for dry eye (P < .001). Use of non-ophthalmic medications was similar between cohorts. Total charges rose $454.79 (22.2%) for dry eye patients, significantly more than for controls ($289.48 [15.9%]) (P < .001). This was mostly due to a rise in outpatient charges ($257.40 [28.7%] for cases versus $76.14 [11.2%] for controls). Dry eye diagnoses/procedures were associated with greater increases in outpatient charges, pharmacy charges, and total medical charges (P < .0001). Dry eye patients experienced a greater average increase in total medical costs than did controls, mostly arising from outpatient charges. **CONCLUSION:** We conclude that a major factor in dry eye-related cost increases is additional physician visits, which may be a consequence of the ineffectiveness of available therapiest.

**THE FRENCH VERSION OF THE PSORIASIS DISABILITY INDEX**

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**OBJECTIVE:** The objective of our work was to translate the PDI into French, with careful attention to the linguistic aspects and the cultural context of the French patients. **CONTEXT:** The PDI is a scale devised by Prof. A. Finlay of Cardiff to evaluate the impact of psoriasis on the life of the patient. This questionnaire has been used in numerous studies to evaluate the consequences of the disease in daily life or the effects of different treatments. **RESULTS:** With the author’s approval, the questionnaire was translated from English to French by two independent translators. The two versions were compared and a few non significant differences were noted. A third translation from English to French was realized with the assistance of the APLCP, psoriasis patient support group. When compared to the first two, this third translation brought out the specificity of the French cultural context and the reality of the disease. To make sure that the translation was consistent with our objective, the questionnaire was sent to five patients and translated from French to English by two independent translators. For a large-scale validation, this questionnaire was sent by post to 3000 psoriasis patients belonging to the APLCP. With the addition of a questionnaire on the patient’s behavior in respect to the treatment, “Living With Psoriasis” will make it possible to evaluate every two years the impact and the daily consequences of psoriasis on French patients and thus become a decision support tool. **CONCLUSION:** The novelty of this initiative resides in the involvement of a patient support group at every step on a level rarely attained, not only in the translation but also in the validation of the questionnaire. This close involvement reflects the key role of a patient support group in the management of the disease.
lines. METHODS: Data from the National Ambulatory Medical Care Survey (NAMCS) 1997 was utilized. Patients with principal diagnosis of otitis media with age less than or equal to 12 years were analyzed using multiple linear and binomial logit regression models. Appropriate antibiotics are defined as those that are recommended by the guidelines. The average wholesale price of recommended antibiotics was compared with the inappropriate antibiotics prescribed. The dosage of antibiotics was confirmed by the IMS health and the advice of a practicing Otolaryngologist. Antibiotics cost was calculated by using the Red Book 1997 and 1998. The weighted average method was used to calculate the average wholesale price of the various quantity packages and dosage forms. This study utilized the methodology of relating a secondary database to an outside source (Red Book) to calculate the cost. RESULTS: The average cost of a course of appropriate antibiotic (penicillin and its derivatives) was found to be $8.07, compared to $69.56 for expensive antibiotics (difference = $61.49). Children less than four years of age were prescribed more expensive antibiotics ($2 = 0.287). Pediatricians, and Otolaryngologists prescribed appropriate and less expensive antibiotics than other family physicians ($2 = 0.144). There was no relationship between the physician’s specialty and patient’s age for inappropriate antibiotics prescribing ($2 = 0.343). CONCLUSIONS: Adhering to the guidelines and prescribing of appropriate antibiotics appears to save cost. Inappropriate prescribing of antibiotics for otitis media should be addressed more explicitly in general practice.

**COST-EFFECTIVENESS OF ARTIFICIAL SKIN SUBSTITUTE VS ALLOGRAFT FOR BURN PATIENTS**

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INTRODUCTION: Healing after a burn injury requires a temporary wound cover until the skin epithelium heals. Traditional wound covering, human cadaver allograft (HCA), is expensive, and limited by availability. OBJECTIVE: To determine if artificial skin substitute (Transcyte) wound cover is cost-effective for temporary wound coverage in patients with major total body surface (TBSA) burns. METHODS: Incremental cost per quality adjusted life year (QALY) in 2000 US dollars is estimated assuming a base case adult patient who has 40% TBSA burn with no inhalation injury, complications, or facial burn followed for one year after HCA or Transcyte procedure. A societal perspective is used. Utilities were surveyed from burn-unit hospital employees. Other variables are taken from literature. RESULTS: Under the base case, Transcyte saves $3600 over HCA, and adds 0.04 QALYs. Quality of life was significantly greater in the Transcyte group (0.54, 95% CI = 0.48–0.59) vs. HCA group (0.65, 95% CI = 0.57–0.74, p = 0.04) while in the hospital, but not significantly different while recovering at home, after recovery, and at work. The incremental QALY of Transcyte minus HCA must be <−0.07 in order for the ICER to reach a threshold of $50,000. Sensitivity analysis shows that a 33% increase in Transcyte price will reach the threshold ICER of $50,000. In addition, this model is highly sensitive to utility at work; a 22% decrease of at-work utility with Transcyte will result in an ICER greater than $50,000. CONCLUSIONS: The results show that use of Transcyte as a temporary wound covering for 40% TBSA burns is a dominant strategy relative to standard HCA. Use of this artificial skin results in cost savings, due to faster healing and less operation room time. A gain in QALYs is seen with Transcyte, due to less scarring and pain during the healing process.

**A COST COMPARISON STUDY OF COMMON PRACTICE AND BEST PRACTICE TREATMENT FOR PRIMARY OPEN-ANGLE GLAUCOMA IN THE UNITED STATES**

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OBJECTIVE: To compare the total, drug, and medical care costs of common practice and best practice management of primary open-angle glaucoma (POAG). METHODS: A Delphi panel of ophthalmologists specialized in glaucoma management was convened in order to delineate practice patterns representative of community physicians (common practice), and to characterize the ideal or optimal standards of care (best practice). A decision analytic approach was used to depict and economically quantify the clinical sequelae under each scenario for POAG patients initiated on medical therapy. Common and best practice decision trees were developed for prototypic agents of the most commonly used first-line classes of medications. Percentage likelihood of drug usage was determined based upon physician consensus whereas drug and surgical efficacy rates were determined based upon a composite of published data. Typical drug dosing regimens and number of medical visits, as determined by physician consensus, were used to estimate the cost of treatment. RESULTS: The total average annual cost of treatment per eye was estimated at $733.85 for common practice and $732.09 for best practice. Drug costs were estimated at $358.66 for common practice and $341.38 for best practice. Costs of medical care were estimated at $375.19 for common practice and $732.09 for best practice. CONCLUSIONS: The use of best practice is associated with lower costs than common practice ($733.85 vs. $732.09). In looking at a societal perspective, non-selective beta-blockers were used less often whereas alpha-2 ago-