and Central of review and dissemination (CRD) databases from 1966–June 2009. Keywords included macular degeneration with preference or utility names of all possible techniques/tools used to derive utility or other synonyms. Original articles reporting health state utilities of patients with AMD were included. All articles were reviewed and independently by two investigators for study design, population and outcomes. Meta-analyses were performed using DerSimonian and Laird method under a random-effects model. RESULTS: Out of 1887 studies identified, 24 studies met inclusion criteria. Twenty-one studies obtained utility directly from patients, while three studies asked ophthalmologists or community members to estimate utility. Standard Gamble (SG) and time-trade off (TTO) were the most commonly techniques used in these studies (11 studies used TTO, while 5 studies used SG). Based on a meta-analysis of three studies which obtained utility from 310 patients and providers and used the utility values with 95% confidence intervals for visual acuity of 20/20–20/25, 20/30–20/50, 20/60–20/100, 20/200–20/400 and <20/400 were 0.91 (0.88–0.94), 0.81 (0.78–0.84), 0.68 (0.58–0.77), 0.62 (0.55–
0.68), and 0.46 (0.36–0.59) respectively. CONCLUSIONS: This study found that the possibility of using our pooled utilities as input parameters in their cost-effectiveness modeling studies.

**PS510**

**HEALTH-STATE UTILITIES AND WILLINGNESS TO PAY AND THEIR ASSOCIATION WITH HEALTH-RELATED QUALITY OF LIFE AMONG PATIENTS WITH PSORIASIS IN TAIWAN**

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OBJECTIVES: Psoriasis has a major impact on patients’ quality of life, as commonly measured by the Dermatology Life Quality Index (DLQI). This study has two objectives: 1) to measure health-related utilities for patients with psoriasis and to measure the willingness-to-pay (WTP) for a cure for psoriasis, and 2) to examine how these different measures of utilities and WTP were related to DLQI. METHODS: Face-to-face patient interviews were carried out with 364 patients with psoriasis during August 2009 and February 2010 at dermatology outpatient clinics in five hospitals located in northern, central and southern Taiwan. Utilities were elicited using time-trade off (TTO), visual analogue scale (VAS) and EQ-5D. The EQ-5D was scored based on the standard scoring formula. The WTP for a cure of psoriasis was elicited by double bounded dichotomous WTP method. To check the validity of these questions another by a visual analog question. RESULTS: Mean age was 44.5 years, mean year of history was 11.2 years, and 77% of patients were male. The mean health utility was 0.87 (EQ-5D), 0.72 (VAS) and 0.75 (TTO). The WTP per month was between NT57790.72 and NT84411.30. Scores of EQ-5D and VAS were significantly negatively correlated to all of the dimensions of DLQI. The correlation of the dichotomous WTP with DLQI was also strong and in the expected direction. TTO was also significantly correlated with DLQI, but the relation was the weakest. CONCLUSIONS: EQ-5D, VAS and WTP are consistent measures with DLQI in assessing the well-being of patients with psoriasis in Taiwan.

**PS511**

**MEDICATION CHOICE AND ASSOCIATED HEALTH-CARE OUTCOMES AND COSTS OF PATIENTS WITH PSORIASIS IN THE UNITED STATES**

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OBJECTIVES: The impact of choice of pharmacotherapy for psoriasis on costs and patient outcomes in large nationally representative data in the United States needs further examination. This study examined the impacts of patient demographics and medication choices on patient’s health status and associated medication costs.

METHODS: A retrospective cross-sectional study was conducted using the 2007 Medical Expenditure Panel Survey (MEPS) database. Information on patient demographics, health status, medication utilization, and medication costs were obtained from the database representing 605,089 patients with psoriasis. Weighted linear multiple regressions were used to examine the impacts of patient demographics and medication choices on patient’s health status and associated medication costs.

RESULTS: Weighted multiple linear regression analyses indicated that the use of topical corticosteroids yielded 23.0% lower annual medication costs (compared to nonusers in logarithm format; P = 0.00), whereas the use of biological/systemic agents yielded 41.8% higher annual medication costs (compared to nonusers in logarithm format; P = 0.00). The study population using topical corticosteroids had 35.0% improvement in SF-12 PCS scores (compared to nonusers; P = 0.00), whereas patients using biological/systemic agents had 8.2% improvement in SF-12 PCS scores (compared to nonusers; P = 0.08). The use of biological agents was elevated according to previous studies. CONCLUSIONS: We observed an association with medication choice for psoriasis treatment on associated patient health status and medication spending in the United States. The retrospective nature of the study precludes assessment of causality, but encouraging use of topical treatments may be an effective means to reduce psoriasis management costs.

**PS512**

**PSYCHOMETRIC EVALUATION OF MYOPA-SPECIFIC INSTRUMENTS USED TO ASSESS HEALTH-RELATED QUALITY OF LIFE FOR PATIENTS RECEIVING LASIK SURGERY**

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OBJECTIVES: The objective of this study is to identify an existing instrument which could measure the health related quality of life of myopia patients receiving refractive surgery such as LASIK for group-level and individual-level decision-making.

METHODS: Seven instruments were identified through a comprehensive literature search. Based on the criteria defined by Scientific Advisory committee of the Medical Outcome Trust (2002), selected instruments were evaluated using 12 criteria related to content validity and test-retest reliability (discriminant validity and construct validity), responsiveness, longitudinal responsiveness, administrator burden, and depth. RESULTS: For the seven identified instruments, two were deemed suitable for group-level decision-making, while five were suitable for individual-level decision-making. CONCLUSIONS: Further examination is needed to confirm the results of this study.

**PS513**

**LINGUISTIC VALIDATION OF THE NATIONAL EYE INSTITUTE—QUALITY OF LIFE QUESTIONNAIRE-42 (NEI-QL-42) FOR PATIENTS WITH REFRACTIVE ERROR MODIFIED FOR SIMPLIFIED CHINESE IN MAINLAND CHINA AND HINDI IN INDIA**

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OBJECTIVES: The NEI-QL-42 developed by RAND Corporation in US English is a reliable and valid measure of the impact of refractive status on patients’ day-to-day life. No Simplified Chinese or Hindi versions existed previously. For an international study, the NEI-QL-42 had to be translated and linguistically validated in Simplified Chinese for China and Hindi for India. METHODS: A standardized linguistic validation methodology was conducted by specialists from each target country: 1) concept definition; 2) dual forward translations by independent native-speaking linguists; 3) reconciliations of the forward translations; 4) back translation into English by a native speaking linguist; 5) resolution of the back translation; 6) international harmonization; 7) clinician (Ophthalmologist) review; 8) cognitive debriefing comprehension interviews on five Mandarin/Simplified Chinese and five Hindi native-speaking patients who are either pre- or post-cataract surgery; and 9) final proofreading. RESULTS: The main challenge on the conceptual level was the English original made extensive use of driving scenarios during the day and night in the US English source instrument to elicit responses. For Hindi and Simplified Chinese, driving scenarios were supplemented with walking and cycling, which were more relevant in the local context without compromising the conceptual intent of the source instrument. On the linguistic level, translating some of the frequency terms required discussion with the developer to identify a solution, as the gradation between the surrounding English response options was difficult to exactly match on a conceptual level in the target language due to linguistic limitations. CONCLUSIONS: According to the rigorous methodology used, with some minor adjustments, the Mandarin and Hindi versions of the NEI-QL-42 were qualitatively conceptually equivalent and culturally relevant. The Simplified Chinese and Hindi versions were successfully linguistically validated to measurement of the impact of refractive error on patients’ day-to-day lives and facilitate the comparison and pooling of data.

**PS514**

**WHAT COST OF HLA-B*5801 GENOTYPING WOULD BE COST-EFFECTIVE FOR THE PREVENTION OF ALLOPURINOL-INDUCED STEVENS JOHNSON SYNDROME/TOXIC EPIDERMAL NECROLYSIS IN THAILAND: ANALYSES USING A DECISION-ANALYTIC MODEL**

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OBJECTIVES: Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN), caused by allopurinol therapy, are strongly associated with the human leuko- cyte antigen (HLA). HLA-B*5801. It was unclear at what price the genetic testing would be a cost-effective strategy compared to no testing. This study aims to determine the range of genotyping cost that would be cost-effective from health-care provider perspective. METHODS: A decision analytic model was used to estimate the cost-effectiveness of genotyping for SJS/TEN in Thailand. The HLA-B*5801 testing cost was varied from NT$5000 to NT$50,000, and the outcomes were calculated by a decision tree and decision analytic model.
effectiveness of HLA-B*5801 genotyping compared to no testing. The incidence of SJSTEN was estimated based on case reports from Health Product Vigilance Center of Thailand in year 2009. The prevalence of HLA-B*5801 was obtained from Thai population reported in eHIV database, while the association of gene and SJSTEN was based on a meta-analysis. Cost of SJSTEN management and case-fatality rate were derived from National Inpatient Governmental Hospital Database in year 2007. We used PG5801 DNA detection kit as a genotyping tool with 100% specificity and sensitivity. We varied genotyping costs and selected values that would make the cost-effectiveness values being 100,000 or 300,000 THB/life-year gained. One-way sensitivity analysis was undertaken to identify influential parameters. RESULTS: The estimated life-years (LY) were 21.9999 and 21.9994 for testing and no testing groups, respectively. Setting the genotyping cost as 393 and 1085 THB resulted in a potentially cost-effective resolution of 100,000 and 300,000 THB/LY, respectively. The most influential parameters were the cost of genotyping and SJSTEN management.

CONCLUSIONS: Pharmacogenetic testing for HLA-B*5801 appears to be potentially cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB. It was important to note that this analysis has not taken into account sequelaes associated with cost-effective if the testing cost falls in the range of 393 and 1085 THB.