mixed treatment comparison (MTC). Triggers for treatment switches included poor compliance (MTC); lack of IOP control (MTC); or progression of visual field defects (3 long-term clinical trials). Treatment dropouts were from expert opinion and death rates from UK national data. Follow-up times are from NHS treatment pathways, drug costs from UK Drug Tariff December 2007, cost of follow-up visits and surgery from NHS National Tariff 2007/8, and cost of low vision from a published UK national study. Utilities were from published sources. **RESULTS:** Patients were stable on treatment for 64%, 56%, 55% and 54% of follow-ups for latanoprost, bimatoprost, travoprost and timolol respectively. As a result, for every 1000 clinic appointments, 716 patients can be followed-up for a year if treated with latanoprost compared to 605 for bitmatoprost (similarly versus other strategies). The total cost of the latanoprost 1st line strategy is £6165, compared to £6239, £6238 and £6083 for bimatoprost, travoprost or timolol respectively (including surgery costs and cost of low vision), with 5.87, 5.85, 5.85 and 5.84 QALYs. The reduction in time spent with low vision for latanoprost is approximately 2 months compared to the other strategies. **CONCLUSIONS:** The model demonstrates that stablising a patient on treatment will lead to reduced disease progression and better outcomes in the long-term, and other benefits such as more efficient use of scheduled follow-up visits.

PSS35

COST UTILITY OF BILATERAL COCHLEAR IMPLANT

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OBJECTIVES: Unilateral cochlear implantation is generally accepted as a cost-effective intervention for hearing impaired patients. They gain understanding in quiet conditions, but report difficulties with sound localization and in noisy conditions. These can be solved with bilateral implants. Currently in Spain, there are estimated to be about 350 bilateral cochlear implanted patients. Our objective is to perform an economic evaluation of bilateral cochlear implantation in adults and children. **METHODS:** We reviewed the published literature to find the effectiveness of bilateral cochlear implantation, and costs of the intervention, to estimate the incremental cost-effectiveness ratio. Our model only considers costs for public systems described by the literature. The time horizon considered is the remaining life of receipients. We use a discount rate of 3% in future costs and effects. Conditions under which bilateral cochlear implants could be cost-effective were explored. **RESULTS:** In adults we find that bilateral cochlear implantation varies from €53,018/QALY when intervention is simultaneous up to €63.487/QALY, in the case of sequential mplantation. In children these ratios show more efficiency, from €44,199 to €56.640/QALY, due to the longer time they can benefit from implants. **CONCLUSIONS:** Patients who already have hearing in one ear can obtain advantages from Bilateral cochlear implantation. It improves their spatial localization of sound and their hearing in noisy circumstances, but it has limited impact on quality of life measured as QALYs. Subsequently the incremental cost-effective ratio is higher than usually accepted in public health systems.

PSS36

THE DESCRIPTIVE EPIDEMIOLOGY AND OUTCOME OF HOSPITALISATIONS FOR PSORIASIS IN THE UNITED KINGDOM

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OBJECTIVES: To characterise the epidemiology and outcome of people hospitalised with a primary diagnosis of psoriasis has never been characterised previously in the UK. **METHODS:** Routine hospital data from a large geographical area (population approx. 435,000) were record-linked using probability matching algorithms to mortality data from the Office of National Statistics (1991 to 2005). Relative survival was compared using Cox proportional hazards models. **RESULTS:** It was possible to identify 1935 hospital admissions from 1038 subjects; 49% male. The mean age at first admission was 44 years (sd 20). The minimum, crude prevalence of people hospitalised with psoriasis at some time was 0.23%. Coincidentally, these admissions represented 0.23% of all hospital admissions. The crude admission rate with a primary diagnosis of psoriasis was 2.9 per 10,000 population per year. The proportion of subjects who had only one admission ranged between 65% and 77%. The median time between the first admission and the second admission was 1.4 years (IQR 0.5 to 3.1). The mean length of hospital stay was 16.8 days (median 15; IQR 8 to 23). There were 55 deaths in total in this group. Ten year survival was between 94% and 95%. Following standardisation, people admitted more than once had increased risk of all cause mortality (hazard ratio 2.71; 95% CI 1.39 to 5.31). **CONCLUSIONS:** This study provides useful background intelligence on the most severe psoriasis patients. The proportion of psoriasis patients admitted was estimated to be about one in six people. Those with more than one admission with psoriasis—greater psoriasis severity—were associated with increased risk of all-cause mortality.

SENSORY SYSTEMS DISORDERS—
Patient-Reported Outcomes Studies

PSS37

IDENTIFYING NON COMPLIANT GLAUCOMA PATIENTS USING THE EDSQ, A QUESTIONNAIRE MEASURING SATISFACTION AND COMPLIANCE OF GLAUCOMA TREATMENT

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OBJECTIVES: To identify non compliant glaucoma patients with the EDSQ, the Eye Drop Satisfaction Questionnaire. **METHODS:** Patients were treated for glaucoma or ocular hypertension with either Travatan® or DuoTrav®. Non compliant patients were identified with a computerized device (Travalert®) that collects daily instillation time and number of drops. The EDSQ was completed once patients used the device for 3 months. EDSQ included six domains: Concern about treatment, Concern about disease, Satisfaction with patient-clinician relationship, Positive beliefs, Treatment convenience, and Declared compliance. Non compliant patients were over-sampled to reach a ratio 1 complier: 1 non complier. A Bayesian network was constructed to identify non compliers. The "Taboo order" algorithm was used to estimate associations. Missing data were inferred according to the EM structural method. EDSQ scores were dichotomised according to a decision tree aimed at maximising non complier identification. **RESULTS:** Among the 176 patients who completed EDSQ, 113 patients used adequately Travalert®. 25 (22.1%) patients were identified as non complier. No difference between compliers and non compliers were found on demographics and baseline medical data. The 6 EDSQ dimensions were found to be associated directly or indirectly with compliance. The Bayesian network identified 3 populations whose a posteriori probabilities were different from a priori. Patients declaring low compliance, aged <77.5, with a poor patient-clinician relationship and patients declaring good compliance, aged >77.5, with a poor patient-clinician relationship were at

high risk to be non compliant. Patients declaring good compliance, aged <77.5, with a good patient-clinician relationship were likely to be compliant. **CONCLUSIONS:** When medical data were not associated with compliance, patient reported outcome might help at identifying glaucoma treatment compliance issues. Treatment compliance is a complex concept, including several dimensions with interactions. EDSQ demonstrated some abilities at identifying non compliant patients. Age, declared compliance and satisfaction with patient-clinician relationship are dimensions that would be worth being explored before switching a glaucoma treatment due to lack of intra-ocular pressure control.

PSS38

RELATION BETWEEN SELF REPORTED GLAUCOMA SYMPTOMS AND COMPLIANCE

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OBJECTIVES: It has long been suspected that treatment compliance is affected by HRQoL. The aim of this study is to assess how compliance is related to GSS scores and other treatment variables in Glaucoma. **METHODS:** An observational study was carried out gathering information on the Spanish version of the Glaucoma Symptom Scale (GSS), three compliance scales (Morisky-Green, Haynes-Sackett, & Batalla) and information about disease severity and treatment. Concordance between adherence scales was first assessed. Using the Morisky-Green score as target criteria, a segmentation tree was tested in order to forecast compliance probability. CHAID growing algorithm was used. **RESULTS:** A sample of 367 patients was recruited with an average age of 68 (±12.1) years from which 57% were females. Most patients (87.7%) were diagnosed of glaucoma, 10.5% were diagnosed of glaucoma and severe PIO and 1.8% presented sever PIO alone. Agreement between adherence scales was poor with a marked superiority of the Morisky-Green questionnaire. The most significant segmentation variable was GSS score, followed by age, glaucoma severity (as assessed by the clinician), number of treatment drugs, and number treatment of drops. Interaction was found between number of drops and other variables in the model. **CONCLUSIONS:** Using the tree model developed it is possible to predict compliance probability. Self perceived symptom discomfort is found to be the best predictor. Additional evidences of GSS construct validity as a measure of HRQoL have been found.

PSS39

QUALITY OF LIFE IN MODERATE TO SEVERE PSORIASIS PATIENTS IN SPAIN

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OBJECTIVES: To assess the effect of moderate to severe psoriasis on quality of life (QoL) in Spanish patients. **METHODS:** An observational study was conducted at 132 centers in Spain which included 10 consecutive patients with moderate to severe psoriasis, defined as: 1) patients with Body Surface Area >= 10 or 2) Psoriasis Area and Severity Index (PASI) >= 10 or 3) Physician's Global Assessment >= 5 or 4) patients receiving systemic treatment. Demographic data, medical history, treatments, occupational impairment, current state of the disease, resource use, and QoL using the Dermatology Life Quality Index (DLQI) and other questionnaires were collected. The DLQI is a self-administered questionnaire with 10 questions measuring 6 domains: symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment. DLQI results are shown as mean scores and percentages (mean value obtained over the maximum score of the domain). **RESULTS:** A total of 1307 (1141 with complete data) patients with moderate to severe psoriasis fulfilled the inclusion criteria for the present study (38% female), with a mean age of 45.7 ± 0.9 (mean ± SD) years, mean duration of the disease of 23.3 ± 2.3 years and mean PASI score of 13.1 ± 0.3. The mean DLQI score was 8.7 ± 0.2, meaning a moderate effect of psoriasis on patient life. Highest mean scores (worst) were obtained in symptoms and feelings (2.7, 45%) and treatment (1.0, 33%) domains and lowest mean scores were obtained in personal relationships (1.1, 18%) and work and school (0.7, 23%) domains. Mean scores for daily activities and leisure were 1.7 (28%) and 1.6 (26%) respectively. **CONCLUSIONS:** Moderate to severe psoriasis has a negative impact on patient QoL. A more intensive and integrated approach to these patients should be considered to achieve a smaller impact of psoriasis on patients' quality of life.

PSS40

RESPONSE SHIFT IN A RANDOMIZED CONTROLLED TRIAL OF LOW VISION CARE FOR PATIENTS WITH AGE-RELATED MACULOPATHY

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OBJECTIVES: To confirm the reliability of quality-of-life (QOL) assessments in a randomized controlled trial (RCT), we investigated the changes in internal standards as a representative of 'response shift (RS)'. **METHODS:** One-hundred and three patients with age-related maculopathy in Japan were randomized to the intervention group and the control group. The intervention group received a standardized low vision care program for 6 months. For ethical considerations, low vision care was also provided for applicants in the control group after 6 months. We assessed visual function-related QOL using the Japanese version of the 25-item National Eye Institute Visual Function Questionnaire (VFQ-25) at baseline, 6-, and 12-months. We asked the patients to answer an additional questionnaire to investigate the changes in internal standards at 6- and 12- months which inquired about QOL at baseline (then-test). This questionnaire included 7 items selected from the VFQ-25 as the representatives of major 7 domains (general vision [GV], near vision [NV], distance vision [DV], social function [SF], mental health [MH], role limitations [RL], and dependency [DP]). **RESULTS:** Fifty-four patients at 6-months and 52 patients at 12-months completed the then-test questionnaire in addition to the VFQ-25. Regardless of the direction of change (improved or deteriorated) in scores, the then-test results tended to decrease the difference of the scores. That is, then-test scores tended to be higher than baseline scores in the case of improvement, and tended to be lower than baseline scores in the case of deterioration. The statistically significant difference was observed between pre- and