OBJECTIVE: The purpose of this study is to evaluate the effect of an evidence-based asthma disease management program in patients’ health-related quality of life (HRQL). METHODS: A total of 54 asthmatic adult patients participated in the before and after study in one of the managed care organizations in Hungary. The program included the development and use of evidence-based protocols, patient education, asthma nurse consultation, and self-management programs. On entering the study, after 6 months and after 12 months patients’ HRQL was measured using the generic utility questionnaire, the EQ-5D and the specific Asthma Quality of Life Questionnaire (AQLQ). Statistical significance was tested with paired samples T-test. RESULTS: A total of 24 patients completed the questionnaires on all 3 occasions. The mean baseline score was 0.79, 69.95, and 4.16 for the EQ-5D index, EQ-5D VAS, and the AQLQ overall, respectively. Baseline scores of patients with and without complete follow-up data did not differ from each other. At 6 months there was a significant mean increase of 0.11 (p = 0.007) and 10.0 (p = 0.004) in the index and the VAS scores, respectively. After 12 months, the index score was maintained at 0.89, with a mean increase of 0.10 from baseline (p = 0.013). The VAS score continued to grow to 84.48 reflecting an overall increase of 14.53 (p < 0.001). At 12 months, significantly less patients reported problems in mobility and anxiety/depression. Both the domain levels and overall AQLQ scores improved at 6 months (p < 0.001). At 12 months, this change remained significant. Improvements in Symptom and Emotion domains were large, 0.84 (p < 0.001) and 0.82 (p < 0.001) respectively. CONCLUSIONS: Evidence-based asthma disease management programs can significantly improve patients’ HRQL already after 6 months, and this improvement can be maintained after 12 months. Importantly, the magnitude of achievable improvement in HRQL corresponded to a difference previously observed between two asthma disease control level groups.

QL2
QUALITY OF LIFE FOLLOWING AORTIC VALVE REPLACEMENT SURGERY
Sonnad SS1, Pagani FD2, Bolling SF3, Deeb GM2
1University of Pennsylvania, Philadelphia, PA, USA; 2University of Michigan, Ann Arbor, MI, USA

OBJECTIVES: Aortic valve replacement surgery has become increasingly common. One of the primary issues in choice of valve is patient quality of life. We obtained SF-36 scores on patients following aortic valve replacement surgery to determine how they compared with community norms and across valve types. METHODS: Operative data were obtained from an adult cardiac surgery database maintained by the department and conforming to STS data element definitions where applicable. All patients receiving aortic valve replacement between January 1992 and July 1997 were sent quality of life surveys in the mail. SF-36 scores were calculated using algorithms provided by QualityMetric Incorporated and compared to general US population means and between valve types (mechanical, bioprosthetic, or stentless bioprosthetic). RESULTS: Of 743 eligible patients, 329 returned the QOL surveys (43%). There were no differences in age, gender or surgery type between patients who did and did not return their surveys. Means on all SF-36 subscales were comparable between valve patients and Age 65–74 population norms. The greatest decrement was seen in the general health item. Population mean versus valve patient mean were as follows: PF 44.5 vs. 44.1; RP 45.5 vs. 44.1; BP 47.8 vs. 50.8; GH 48.4 vs. 46.0; VT 51.6 vs. 50.1; SF 50.1 vs. 50.2; RE 48.63 vs. 46.5; MH 52.7 vs. 52.1. Valve type had no effect on SF-36 subscales. CONCLUSIONS: Aortic valve replacement surgery provides patients with general quality of life equivalent to that of the US population in the same age group. All types of valves appear to have equivalent effects on quality of life. Further study with more specialized measurement instruments are necessary to determine whether there are more disease specific differences in quality of life following aortic valve replacement surgery.

QL3
ECONOMIC AND QUALITY OF LIFE IMPACT OF SEASONAL ALLERGIC CONJUNCTIVITIS IN OXFORDSHIRE
Smith AF1, Pitt AD2, Lindsell L3, Voon LW3, Bron AJ4, Rose PV1
1Alcon Laboratories Ltd and Nuffield Laboratory of Ophthalmology, University of Oxford, Hemel Hempstead, Hertfordshire, United Kingdom; 2University of Oxford, Oxford, Oxfordshire, United Kingdom; 3Oxford Eye Hospital, Oxford, Oxfordshire, United Kingdom; 4Nuffield Laboratory of Ophthalmology, University of Oxford, Oxford, Oxfordshire, United Kingdom

OBJECTIVE: The purpose of this study was to examine the economic and quality of life (QoL) impact of seasonal allergic conjunctivitis in Oxfordshire. METHODS: Participants were recruited from either general practices, or the casualty department of the Oxford Eye Hospital (OEH). The inclusion criteria for cases were that participants: 1) experienced itchy, bloodshot and watering eyes at some time between February and August every year since 1999, and 2) considered it likely that this was in response to seasonal allergens. Participants completed the EQ-5D Health Questionnaire, the Rhinoconjunctivitis Quality of Life Questionnaire, the National Eye Institute (US) Visual Functioning Questionnaire 25, and a specially developed Health Economic and Demographic Questionnaire. RESULTS: Most participants in both groups were female (67.5% in SAC and 70% in control group, P = 0.565). Weekly earnings were lower in the SAC group (P < 0.001), as the SAC group also worked fewer hours per week (P < 0.001). Participants with SAC also experi-
enanced a greater degree of pain and discomfort as measured by the EQ-5D (P = 0.018) and a lower perception of their health status using the EQ-VAS (P = 0.039). Statistically significant differences between both groups were detected in all domains of the VFQ-25, except general and colour vision, although differences were thought to be clinically significant only for the ocular pain domain. The RQLQ scores were also all found to differ significantly between groups (P < 0.001). The total of both the public health care and private out-of-pocket costs of SAC in our study population ranged on average between £64.61 for a pensioner to £142.29 for a person with SAC in paid employment. CONCLUSIONS: SAC is a costly, highly prevalent, chronic condition associated with significant reductions in both ocular and general quality of life, as well as ongoing out-of-pocket expenses and health care costs.

A RANDOMIZED TRIAL OF MEDICAL CO-PRESCRIPTION OF HEROIN TO CHRONIC, TREATMENT-RESISTANT HEROIN ADDICTS IN THE NETHERLANDS: DATA ON QALY’S
Dijkgraaf MGW, Van der Zanden B, De Borgie C, Van den Brink W
Academic Medical Center / University of Amsterdam, Amsterdam, Netherlands

OBJECTIVES: To estimate the number of quality adjusted life years (QALYs) for chronic, treatment-resistant heroin addicts in the Netherlands during the first year of treatment with either oral methadone alone or oral methadone in combination with co-prescribed heroin. METHODS: Randomly assigned patients (N = 430) completed Euroqol-5D questionnaires at months 2, 6, 10, and 12 after they started therapy. Utility values were derived by applying existing time trade-off based regression weights to the data. It was assumed that the observed EuroQol scores and related utilities reflected the health status between the actual measurement and the previous one available. In case of missing endpoint assessments, the last observation was carried forward. QALYs were calculated as the mean health utility during follow-up, weighted for the number of months preceding each follow-up measurement. It was hypothesized that co-prescription of heroin would lead to more QALYs.

RESULTS: About half of all treatment-resistant heroin addicts suffered pain or discomfort and felt anxious or depressed at baseline. In the first year of treatment, a patient on oral methadone alone generated 0.830 QALYs on average (upper bound one-sided 95% confidence interval: 0.846), a patient on co-prescribed heroin 0.867 QALYs (lower bound one-sided 95% confidence interval: 0.852). The numbers of QALYs generated per patient differed for the two groups (t = -2.72, p = 0.003 one-tailed). Hence, the medical co-prescription of heroin resulted, on average, in a 21.4% reduction of existing health loss.

CONCLUSIONS: Medical co-prescription of heroin in addition to an oral methadone regimen is superior to an oral methadone alone regimen. Further study will focus on the cost-utility of co-prescribed heroin in this patient population with special attention to the balance of increasing health care costs and decreasing costs of illegal behavior by the heroin addicts in the program.

MENTAL HEALTH

COST-EFFECTIVENESS OF ANTIDEPRESSANT THERAPY, COGNITIVE BEHAVIOUR THERAPY AND THEIR COMBINATION FOR PEOPLE WITH BULIMIA NERVOSA IN THE UK
Simon J, Whittington C, the Eating Disorders Guideline Development Group OBO
1Health Economics Research Centre, University of Oxford, Oxford, United Kingdom; 2National Collaborating Centre for Mental Health, National Institute for Clinical Excellence, London, United Kingdom

OBJECTIVES: Bulimia nervosa (BN) is characterised by recurrent episodes of binge eating and secondly by compensatory behaviour to prevent weight gain. Its prevalence has been estimated between 0.5% and 1.0% in young women. A recent clinical guideline was commissioned to establish the optimum clinical management of BN in the UK. Antidepressants and bulimia nervosa specific cognitive behaviour therapy (CBT-BN) were identified as the leading pharmacological and psychological therapies in the clinical review. This study reports the results of the cost-effectiveness analysis of these strategies conducted as part of the guideline development process.

METHODS: A decision analytic model was developed to calculate the incremental cost-effectiveness of antidepressant therapy (fluoxetine), CBT-BN and their combination from the NHS’s viewpoint. Remission data were obtained from the guideline meta-analyses, resource use data were collected from the literature and experts. Unit costs were calculated for year 2002/03. Different baseline scenarios and uncertainty around the estimates (probabilistic analysis) were explored.

RESULTS: Combination therapy is dominated by the other two strategies and was excluded from the final calculation. CBT-BN is more effective and has higher treatment costs than fluoxetine prescribed in primary care with an incremental cost-effectiveness ratio (ICER) of £4,807. The probability of CBT-BN being cost-effective is 50% if decision makers are willing to pay between £4,000–£5,000 for an additional successfully treated BN case, but it increases to approximately 95% if the threshold value is £10,000.

CONCLUSIONS: Significant uncertainty around these results still exists (e.g. the true cost of side effects of antidepressant therapy are unknown, nor have attempts been made to quantify possible costs averted due to successful treatment). When further research is carried out, it will be necessary to re-estimate the cost-effectiveness of each alternative incorporating such influences. However, all these influences are