lel sample \( (n = 137) \) the average quarterly costs had increased by 13% (ns). CONCLUSIONS: Computerised data collection performed by the doctor provide detailed information about diagnosis, treatments, and referrals making possible the study of patient pathways and costs. DPMA is cost-effective in provision of care.

**ASTHMA**

**ASTHMA—Methods and Concepts**

**PAA7**

**A COMPARISON OF TWO APPROACHES TO ESTIMATE ANNUAL MEDICATION COSTS IN THE KORA ASTHMA AND ALLERGY STUDY**

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**OBJECTIVES:** Comparison of annual medication costs in a population-based study using a prediction formula based on 7 day medication history to cost data provided by health insurance companies. METHODS: The KORA Asthma and Allergy study evaluated cost of illness due to asthma and allergies in a population-based case-control design. Medication costs originated from a 7 day medication history (interview) and from health insurance data. Drugs documented per interview were assigned an average price per defined daily dose (DDD) for each standard package size group. Weekly medication costs were extrapolated by multiplying price per DDD (medium package size) by predicted length of intake according to general ATC group. For consenting subjects, all medications reimbursed by the health insurance companies for 1998 were obtained. The annual total costs as well as cost differences between disease groups were compared between both approaches. RESULTS: Of 1534 subjects participating in the KORA study, 1249 were insured publicly and 63.8% of those consented to release their health insurance data. Of 614 persons with prescribed medications according to insurance data, 233 (38%) reported no prescribed medications during the interview. Median (inter-quartile range) annual costs for this group were 37€ (16–103€). For the other 381 subjects (62%), annual insurance costs were 260€ (116–638€) whereas predicted costs were higher (364€; 104–863€). For subjects with asthma or allergy, predicted costs agreed slightly better than those based on VAS or linear regression. The mean values ranging from 0.58 to 0.82. Change during treatment is compared to the primary efficacy variable in each study. RESULTS: Mean utility values at baseline show a consistent pattern across disease areas with large individual variation, with utility values ranging from 0.28 to 0.99 and with mean values ranging from 0.58 to 0.82. Change during treatment is small (0.00 to 0.11) and in most cases statistically non-significant when comparing treatments. Correlation with clinical efficacy is of moderate magnitude. CONCLUSION: The two utility measures based on Standard Gamble or TTO seems to be slightly better than those based on VAS or linear regression. The pattern across the different disease areas is consistent for the different algorithms.

**PAA9**

**FROM SF-36 TO UTILITY SCORES: A COMPARISON OF DIFFERENT ALGORITHMS IN DIFFERENT SETTINGS**

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**OBJECTIVES:** To investigate if the results of four published algorithms for calculating utility values from assessments of SF-36 are in agreement with the responses of traditional efficacy variables assessed in clinical studies in the respiratory field. METHODS: Data from six different randomized clinical studies, two from each of the disease areas of asthma, rhinitis and COPD, comparing two treatments, are used in the investigation. Baseline values before randomizing to study treatment are compared for the algorithms as well as change during treatment. Change during treatment is compared to the primary efficacy variable in each study. RESULTS: Mean utility values at baseline show a consistent pattern across disease areas with large individual variation, with utility values ranging from 0.28 to 0.99 and with mean values ranging from 0.58 to 0.82. Change during treatment is small (0.00 to 0.11) and in most cases statistically non-significant when comparing treatments. Correlation with clinical efficacy is of moderate magnitude. CONCLUSION: The two utility measures based on Standard Gamble or TTO seems to be slightly better than those based on VAS or linear regression. The pattern across the different disease areas is consistent for the different algorithms.

**ARTHROLOGY**

**ARTHROLOGY—Cost Studies**

**PARI**

**HE BURDEN OF ANKYLOSING Spondylitis IN AUSTRALIA: AN EPIDEMIOLOGICAL AND COST OF ILLNESS MODEL**


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OBJECTIVE: To estimate aggregate burden imposed on the Australian community each year by the systemic rheumatic disease ankylosing spondylitis (AS). METHODS: The study used a bottom-up approach consisting of: a survey of 143 AS patients; estimation of the costs associated with each patient; estimation of the incidence and prevalence of AS in Australia; and integration of these data to estimate the total costs of AS in Australia each year. The patient survey collected information about respondents’ disease characteristics, quality of life, health care resource utilisation, and employment. Health Care costs accrued by patients were classified into six categories: medications; hospitalisations; specialist attendances; visits to other medical professionals and allied health care appointments; medical procedures and tests; and complementary Health Care appointments. Non-Health Care costs comprised lost productivity due to absence from paid and unpaid employment, assessed using the human capital and friction cost methods, and using the value of a quality-adjusted life year (QALY). RESULTS: It is estimated the number of patients in the Australian health care system with diagnosed AS is currently 6895. However, an additional 12,805 un- or misdiagnosed AS patients are predicted. The aggregate annual costs of AS in Australia in 2004 are estimated to be between AUS$109,432,035 and AUS$483,010,549, depending on methods used to assess indirect costs. Direct Health Care costs of AS are expected to be approximately A$34 million in 2004, accounting for 7%–31% of the total burden. CONCLUSIONS: Comparison of the aggregate costs of AS with other cost-of-illness studies reported in Australia shows that the health care costs of AS are lower than those for many other conditions. However, the majority of the total costs of AS is attributable to lost productivity highlighting the effect on a predominantly working-age population. The burden of AS in Australia is expected to increase in the next four years as population grows.

THE TOTAL COST OF TREATMENT AND THE COST-EFFECTIVENESS OF VALDECOXIB VS DICLOFENAC IN THE TREATMENT OF PATIENTS WITH OSTEOARTHRITIS (OA) OF THE HIP AND/OR KNEE

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OBJECTIVE: To evaluate the cost-effectiveness and the total cost differences between valdecoxib 10 or 20mg qd and diclofenac 75mg SR bid in the treatment of OA of the knee and/or hip.

METHODS: Study 063, a double-blind, randomized, 12-month study, evaluated the efficacy of valdecoxib 10mg qd (n = 259) and valdecoxib 20mg qd (n = 261) versus diclofenac 75mg SR bid (n = 262). Hospitalizations, unscheduled health care visits, concomitant medications and unscheduled diagnostic and medical procedures were prospectively collected during the trial.

This economic evaluation was conducted from a UK National Health Service perspective, using published UK sources for cost.

The valdecoxib 10mg group resulted in lower mean total costs than the diclofenac group with a treatment cost difference of—£129.20 (95% CI: —£448.80, £190.39). The corresponding difference between the valdecoxib 20mg group and the diclofenac group was —£79.74 (95% CI: —£400.92, £241.44). Cost per averted ulcer showed valdecoxib as the dominant therapy with fewer ulcers and lower total medical costs.

CONCLUSIONS: Valdecoxib 10 and 20mg qd provided comparable efficacy with a more beneficial safety profile at a similar total medical cost compared to diclofenac 75mg bid in treating OA.


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OBJECTIVES: We performed a macro-economic assessment of the cost of osteoarthritis in 2002 and compared our results to those computed in 1991 in an earlier study using the same methodology.

METHODS: The macro-economic cost assessment was based on prevalence data. Medical consumption items were described both in term of quantity and price. Data were collected...