tom-free day measure, provides lower estimates of average utility of asthma pediatric asthma patients.

RS2

USING SELF-ADMINISTERED DIRECT TTO QUESTIONS TO ELICIT UTILITY VALUES FOR ASTHMATIC PATIENTS WITH DIFFERENT SEVERITY OF DISEASE

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OBJECTIVES: To gain utility values for asthmatic patients, self-administered direct TTO questions may seem to be a simple option. This study examined reported TTO values by disease severity groups, and the relationship between other health status measures, and with age. **METHODS:** 228 consecutive adult outpatients and inpatients at four sites in Hungary participated in the study. Doctors had to report GINA severity group and lung function values. Patients had to fill in three QoL questionnaires and a direct TTO question that offered a choice between 20 years in current health or shorter length of life in perfect health. Statistical analysis applied F-statistics. **RESULTS:** Mean TTO values were 0.99, 0.96, 0.82, 0.73 in the four severity groups, respectively. These were higher than corresponding EQ-5Dindex results of 0.93, 0.76, 0.65, 0.52. Correlation coefficients between TTO values and EQ-5Dindex, EQ-5Dvas, SF-36(PCS), SF-36(MCS), SGRQ, and FEV1% were 0.40, 0.40, 0.34, 0.25, −0.36, and 0.36, respectively. Age explained 23% of differences in TTO values after controlling for asthma severity. Within severity groups 4 and 3, patients over 50 reported TTO values lower by 0.21 and 0.20 than those below this age. These differences were larger than corresponding differences in EQ-5D index values suggesting that direct TTO responses may incorporate different concepts of remaining life years of the older. Results were statistically significant ($p < 0.0001$). **CONCLUSIONS:** Utility values gained from direct TTO questions can lead to higher scores than generic utility-based questionnaires, low correlation values with other measures, and to biases in patient groups of heterogeneous age.

RS3

PSYCHOMETRIC EVALUATION OF THE CAP-SYM QUESTIONNAIRE: A NEW, PATIENT-BASED MEASURE OF SYMPTOMS IN COMMUNITY ACQUIRED PNEUMONIA

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OBJECTIVES: To develop a practical and scientifically rigorous, patient-based outcome questionnaire to evaluate symptoms in community-acquired pneumonia (CAP). **METHODS:** The CAP-Symptom questionnaire (CAP-Sym) is an 18-item, interviewer-administered questionnaire that measures the bothersomeness of 18 symptoms during the past 24 hours using a 6-point Likert scale. We used gold-standard psychometric methods to comprehensively evaluate the acceptability, reliability, validity and responsiveness of the CAP-Sym in field testing involving 556 patients in 13 countries. The development and validation of the CAP-Sym were carried out as part of the CAP 2000 study, a multicentre, multinational, prospective, randomised, double-blind study to compare the effectiveness of moxifloxacin oral tablets to standard oral treatment regimes in patients with CAP. **RESULTS:** Field testing in all countries confirmed the acceptability (item non-response, item endorsement frequencies, item/scale floor and ceiling effects), reliability (internal consistency, item-total and inter-item correlations, test-retest reliability), validity (content, construct, convergent, discriminant, known groups) and responsiveness of the CAP-Sym. **CONCLUSIONS:** The CAP-Sym is a practical and scientifically sound patient-based outcome measure that can be used to evaluate CAP-related symptoms in clinical trials or clinical audit. The disease-specific CAP-Sym shows preliminary evidence of being more responsive than the generic SF-36 as a measure of outcome in CAP.

RS4

A MODEL-BASED EVALUATION OF INHALED STEROIDS IN MILD-TO-MODERATE ASTHMA

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OBJECTIVE: To forecast the discounted costs and clinical consequences of inhaled corticosteroids (ICS) in a population of adults with mild-to-moderate asthma. **METHODS:** We developed a Markov, state-transition simulation of asthma patient care and its pharmacoeconomic impact. We employed this framework to compare quick relievers (e.g., b-agonists) on an as-needed basis to quick relievers plus ICS therapy targeted to one of three severity sub-populations. State-space dimensions included patient age, clinical history, and lung dysfunction (measured via forced expiratory volume in one second, FEV1). Risk functions were estimated from symptom, exacerbation, and hospitalization rates obtained from literature reviews and analyses of primary, cross-sectional data. Systematic review of published trials yielded 16 eligible studies and produced the following outcome ranges for sensitivity analysis: 1%–21% improvement in FEV1; monthly costs of $14–$76; and 0%–4% probability of major toxicity. Societal costs were derived from published economic studies of inpatient and outpatient asthma. We collected preference weights (using standard gambles, time tradeoffs, and the Health Utilities Index) in a cross-sectional