OBJECTIVES: Patients with allergic asthma not well controlled on pharmacotherapy constitute a significant cost to society, whilst having reduced quality of life. Allergen immunotherapy tablets for sublingual administration (SLIT-tablets) have been developed as an effective, well tolerated and convenient treatment modality, suitable for patients with allergic asthma that is not well controlled, despite use of pharmacotherapy. METHOIDS: A multicentre, double-blind, randomised, placebo-controlled clinical trial with the SQ® HDM SLIT-tablet (ClinicalTrials.gov: NCT01433529) has shown statistically significant improvements for all efficacy endpoints in allergic asthma, including improvement in health-related quality of life. A cost-utility analysis was performed using a decision tree structure and data taken from the SQ® HDM SLIT-tablet clinical trial, including SF-36 and health care utilisation data. Long-term efficacy data was limited, and therefore conservative assumptions were adopted, framed by expert advice. As basis for the analysis, German preference weights and costs were applied and a 9-year time horizon adopted. Uncertainty around efficacy assumptions was explored by sensitivity analyses. RESULTS: The SQ® HDM SLIT-tablet was cost-effective compared with pharmacotherapy, in the treatment of allergic asthma (ICER<15,000/ QALY). During sensitivity analysis, model results were sensitive to changes in input parameters and assumptions. Nevertheless, all at the importance of establishing long-term outcomes following treatment with the SQ® HDM SLIT-tablet. CONCLUSIONS: In the base case analysis, SQ® HDM SLIT-tablet proved to be cost-effective in the treatment of allergic asthma, compared to placebo. Conservative efficacy assumptions were adopted for the analysis, and therefore, the true benefits of the treatment may be underestimated.

PRSS5
RECENT TRENDS IN ANAPHYLAXIS-RELATED HOSPITALIZATION IN THE UNITED STATES
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OBJECTIVES: Anaphylaxis is a severe, often life-threatening, allergic reaction (commonly known as anaphylactic shock) and may frequently result in medical attention. This study examined recent trends of anaphylaxis-related hospitalization in the United States (US). METHODS: Study data were drawn from the Healthcare Cost and Utilization Project’s 2001-2012 National (Nationwide) Inpatient Samples (NIS), a nationally representative database of hospital discharges in the US. Anaphylaxis-related hospitalizations were identified using a modification of a previously published algorithm (Walsh et al, 2013; this algorithm evaluates diagnosis code on record to identify anaphylaxis-related hospitalizations. In addition to quantifying the rate of hospitalization (per 100,000 US population), length of stay (LOS) and total costs for such hospitalizations were evaluated. Overall estimates, as well as by age group, were generated. RESULTS: Across all age groups, the fraction of hospitalizations reported in the NIS that were anaphylaxis related increased from 1.5/100,000 in 2001 to 8.0/100,000 in 2012. In general, annual the greatest rate was among those 65-84 years old, although the greatest rate observed was for those 85+ years in 2012, at 8.0/100,000, with rates among this age group steadily increasing over time. Among all anaphylaxis-related hospitalizations, the mean total cost (in 2014 US dollars) increased by more than 55%, from $12,508 in 2001 to $19,420 in 2012. The mean LOS across all anaphylaxis-related hospitalizations was 1.6 days (97% confidence interval 1.1-2.0 days) from 3.7 days in 2001 to 4.9 days in 2012. CONCLUSIONS: Since the early 2000s, rates of anaphylaxis-related hospitalization in the US have increased, with the mean LOS and cost per stay increasing as well. Healthcare decision makers should be aware of these data as they plan for allocation of resources used to treat anaphylaxis.

RESPIRATORY-RELATED DISORDERS – Patient-Reported Outcomes & Patient Preference Studies

PRSS5
MEASURING GENERIC HEALTH-RELATED QUALITY OF LIFE AND IMPACT OF HEALTH RESOURCE UTILIZATION IN ADULTS WITH CYSTIC FIBROSIS
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OBJECTIVES: Compare generic health-related quality of life (HRQL) between adults with and without cystic fibrosis (CF). METHODS: Data were drawn from the Cystic Fibrosis Foundation’s (CFF) Pulmonary Surveillance System (PSS) to explore the priorities of patients with moderate-to-severe COPD in relation to treatment. METHODS: Interventions were conducted with 20 patients with self-reported moderate-to-severe COPD. Patients completed a brief worst-possible scaling and a self-reported questionnaire comprised of 15 attributes (4 physical, 5 mental and 6 social dimensions), that were unweighted and equal importance to each other. The COPD questionnaire (COPQOL) ran on to quantifying HRQL benefits from interventions that may reduce ER/hospital utilisation in adults with CF.

PRSS6
ASSESSING COPD PATIENTS BURDEN OF DISEASE IN A FOLD-IN-TO-OUT DISCRETE CHOICE EXPERIMENT
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OBJECTIVES: The Assessment of Burden of COPD (ABC) tool evaluates and visualizes the health status of patients with chronic obstructive pulmonary disease (COPD). This tool may be used during consultations to monitor the burden of COPD and to adjust treatment. ABC tool has items in 5 dimensions: symptoms, limitations, mental status, exacerbations, and fatigue. The aim of our study was to determine the burden of each of 15 elements in the ABC questionnaire. METHODS: A discrete choice experiment (DCE) was conducted using telephone interviews with 279 COPD patients. They were presented 13 sets of two patients, and decided which patient was in the worst health state. In order to make the choice task feasible despite the large number of 15 attributes, we generated an efficient design using the Generalised full factorial design. This model was evaluated using three columns of two levels. Results: The samples had a mean age of 67.6 years in 2012.

PRSS7
MAPPING THE ST GEORGE’S RESPIRATORY QUESTIONNAIRE TO THE EUROQOL 5 DIMENSIONS: A STUDY IN PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS
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OBJECTIVES: Idiopathic pulmonary fibrosis (IPF) is a rare and fatal lung disease. EQ-5D utilities, an important consideration for cost-effectiveness analysis, are not available as IPF-specific data. On the other hand, the St George’s Respiratory Questionnaire (SGRQ) is the most extensively used patient-reported questionnaire in IPF patients. The objective of this study was to develop a mapping algorithm from the total SGRQ score to obtain EQ-5D utilities. METHODS: Data were analysed from a double-blind multicentre study conducted in England and Wales of which 181 IPF patients received either co-trimoxazole or placebo. In total, 202 pairs of data were collected recording both SGRQ and the EQ-5D-3L. Generalised mixed models, accounting for repeated measurements within subjects as residual or generalised random effects, were fit to the data. Explanatory variables were evaluated to aid model fit: Age, BMI, Sex, Forced Expiratory Volume in 1 second (FEV1), Forced Capacity should be able to be assessed. Gains in well-being can primarily be achieved by focusing on patients’ ability to lead a relatively normal everyday life.