

mixed-treatment comparison) were applied at 2 weeks. Lung function decline after 2 weeks was applied independent of treatment arm but dependant on GOLD stage. Exacerbation risk, health outcomes and costs of COPD management were calculated based on GOLD stage. Cost inputs were taken from published literature. **RESULTS:** The 5-year budget impact of displacement of tiotropium by tiotropium + olodaterol Respimat<sup>®</sup> was a cost-saving of £25.8 million, £2.7 million, £1.6 million, and £0.9 million, in England, Scotland, Wales, and Northern Ireland respectively. These cost-savings were largely driven by a predicted 0.8% reduction in COPD management costs, and a predicted 0.9% reduction in the costs of exacerbation management. **CONCLUSIONS:** Switching patients with COPD from tiotropium maintenance to tiotropium + olodaterol Respimat<sup>®</sup> maintenance therapy has the potential to be cost-saving to the UK NHS. These cost-savings largely result from a predicted reduction in primary and secondary care costs. Whilst treatment switching should be driven by clinical rationale and patient preference, this finding has implications for medicine optimisation in the UK.

#### PRS18

##### THE BUDGET IMPACT OF AN INHALER WITH IMPROVED FEATURES COMPARED TO SPIRIVA<sup>®</sup> HANDIHALER<sup>®</sup> FOR THE MANAGEMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN THE UK: ESTIMATED IMPACT ON UNSCHEDULED HEALTHCARE COSTS AND INHALER SATISFACTION

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**OBJECTIVES:** Spiriva<sup>®</sup> Handihaler<sup>®</sup> (tiotropium) is a single capsule dry powder inhaler (DPI) for the treatment of COPD. A budget impact model was developed to assess the potential economic impact of introducing an inhaler with improved features compared to Spiriva<sup>®</sup> Handihaler<sup>®</sup> to treat COPD in the UK. The potential cost benefit of increasing treatment satisfaction, due to the improved characteristics of this new inhaler was investigated. **METHODS:** The eligible patient population presented was based on the number of confirmed COPD diagnoses in the UK, with the proportion of patients receiving Spiriva<sup>®</sup> Handihaler<sup>®</sup> based on market research data. The costs of scheduled and unscheduled healthcare events presented within the model were taken from publically available UK sources. Findings from a multinational, cross-sectional, real-world survey of 1,443 COPD patients associating inhaler attributes, inhaler satisfaction, adherence and patient health status were used within the model to determine the correlations between inhaler satisfaction, treatment adherence and unscheduled healthcare events. Using these correlations, an annual number of UK unscheduled healthcare events associated with COPD was calculated for patients using a new improved inhaler and Spiriva<sup>®</sup> Handihaler<sup>®</sup>. **RESULTS:** The annual UK costs of treating COPD patients for unscheduled healthcare events were €1027.05 with Spiriva<sup>®</sup> Handihaler<sup>®</sup> vs. €922.14 with the new inhaler. Potential budgetary savings achieved by using the new inhaler instead of Handihaler<sup>®</sup> were calculated at €104.91 per patient and €16.69 million for the UK COPD patient population per year. **CONCLUSIONS:** There is a potential for a new improved tiotropium inhaler to offer budgetary savings compared with Spiriva<sup>®</sup> Handihaler<sup>®</sup> resulting from cost benefits due to increased patient satisfaction with their inhaler.

#### PRS19

##### ESTIMATING SEASONAL ALLERGIC CONJUNCTIVITIS MARKET SIZE AND SPENDING

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**OBJECTIVES:** This study estimated the total expenditure on prescribed Seasonal Allergic Conjunctivitis (SAC) medication in the UK and the budget impact of switching patients to alternative treatments. **METHODS:** A budget impact model developed from the UK NHS and Personal Social Services (PSS) perspective was used to evaluate total spending on: olopatadine, generic sodium cromoglicate, branded sodium cromoglicate, nedocromil sodium. A 4-month time horizon was applied (average allergy season duration). Direct to patient data (National Health and Wellness Survey (NHWS)) were used to estimate the number of patients receiving prescription SAC treatment. Published 42-day efficacy data were input for each product, with patients classified as either successfully treated or unsuccessfully treated at 14, 28, 42, and 120 days. Unsuccessful treatment required additional resource use and switch to further therapy. Two approaches extrapolated clinical data to 120 days: A) No decline after 42-days, B) linear decline in efficacy. Cost per treatment was estimated and multiplied by its market size to estimate the total current spend in the UK. Model structure and inputs were validated with clinical KOLs. **RESULTS:** Under scenario A olopatadine treatment was associated with the lowest cost. Olopatadine spending over a four month period was £100.08 versus £104.39 for sodium cromoglicate. Under scenario B, sodium cromoglicate treatment resulted in costs of £114.97 versus £124.07 with olopatadine. An estimated 3,161,807 UK adults are treated in the Rx market (NHWS). Total spending was estimated to exceed £300,000,000 under all scenarios. Under scenario A switching all patients to olopatadine may result in savings of £15,378,769. **CONCLUSIONS:** Increasing olopatadine market share in SAC may be cost-saving when compared against alternative treatments for SAC. The use of direct to patient surveys are an important source in market sizing when considering markets split across prescription and over-the-counter treatments.

#### PRS20

##### BUDGETARY IMPLICATIONS OF INTRODUCING THE GSK ELLIPTA PORTFOLIO FOR COPD IN THE UK

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**OBJECTIVES:** The GSK Ellipta portfolio medicines are licensed for treatment of COPD in the UK and is comprised of fluticasone furoate/vilanterol, umeclidinium bromide/vilanterol and umeclidinium bromide. A budget impact model (BIM) was designed to

explore the cost implications of prescribing Ellipta portfolio in appropriate patients versus alternative therapies, in line with clinical guidelines. **METHODS:** a one-year BIM was constructed to explore financial implications of prescribing Ellipta medicines as alternative treatment options to currently prescribed therapies. The BIM is based on UK prescription analysis, epidemiological and resource data. The BIM uses prescription data to generate patient cohorts and progresses them to more intensive therapy based on estimates of symptoms of exacerbation or breathlessness. It also considers medicines optimisation for patients that could benefit from simplified regimens and estimates the budget impact of moving patients using non-licensed ICS/LABA to licensed therapies. The model allows definition of treatment progressions, using appropriate Ellipta devices to target bronchodilator or steroid based regimens. Costs are calculated using market share of current treatments vs. a scenario in which Ellipta medicines are used. Differences in patient outcomes, efficacy or safety are not explored. **RESULTS:** It is estimated that the average health economy in the UK has 5,518 COPD patients of whom 1,320 are eligible to be progressed in their medication. In year 1, compared to a base case of utilising the most routinely used existing COPD therapies (100% implementation rate for new incident patients and 50% for all others) would increase spend by £247,830 compared with a reduced budget impact of -£131,920 if these eligible patients were moved to Ellipta medicines. **CONCLUSIONS:** The introduction of Ellipta portfolio in COPD could potentially reduce the budget impact and total spend on COPD therapies by £379,750 in the average UK health economy compared to current prescribing patterns. Funded by GSK

#### PRS21

##### BUDGET IMPACT ANALYSIS OF FORMOTEROL EASYHALER IN THE TREATMENT OF ASTHMA IN CHILDREN IN THE RUSSIAN FEDERATION

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**OBJECTIVES:** To conduct the budget impact analysis of Formoterol Easyhaler, which allowed to determine the net economic effect of the budget impact in regards of replacement of one medicine to another. **METHODS:** Information search was conducted in the public domain. Pharmacoeconomic analysis method – budget impact and direct cost analysis were performed. **RESULTS:** In this study, given the pharmacoeconomic evaluation of drugs Formoterol Easyhaler, Oxis Turbuhaler, Foradil Aerolizer and Atimos. The study had a time horizon of one year. The daily dose of formoterol was 24 mcg. Cost analysis was conducted on the cost of basic pharmacotherapy, compensation costs for treatment of exacerbations, compensation costs for side effects and adverse reactions. The total direct cost per patient with asthma amounted to 1 262, 17\$ to the Easyhaler group, 1 581, 83\$ to the Turbuhaler group, 1 498,95 and 1 499,99 to the Foradil (30 and 60 doses), and 1 705, 06\$ to the Atimos. The selection of budget impact method of pharmacoeconomic analysis was determined by the advantages of Formoterol Easyhaler in terms of its efficiency and lower value of total direct costs. In the present study, based on the results of the "cost analysis" it was revealed that the replacement formoterol of Oxis Turbuhaler, Foradil Aerolizer (30 and 60 doses) and Atimos on Easyhaler saved per patient respectively 319,66\$, 236,78\$ (187, 82\$ for 60 doses) and 442,89\$ for the health care system budget. **CONCLUSIONS:** The budget impact analysis results obtained in this Formoterol Easyhaler versus others drugs of formoterol comparative study demonstrated that Easyhaler therapy resulted in budget saving.

#### PRS22

##### COST SAVING STUDY OF FIVE GRASS POLLEN SLIT TABLET VERSUS SCIT'S & SYMPTOMATIC TREATMENT

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**OBJECTIVES:** Allergic rhinitis (AR) is a chronic disease of the upper respiratory tract caused by exposure to allergens inducing inflammation of the nasal mucosa and of the conjunctiva mediated by antibody Immunoglobulin E (IgE). According to local literature, prevalence of symptomatic AR is around 20% and grass pollen is the most common allergen causing A (%5 of uncontrolled moderate / severe AR) in Turkey. Allergen-specific immunotherapy (AIT) is recommended as a second line treatment for patients with moderate to severe allergic rhinitis not or poorly controlled by symptomatic treatments. The Five Grass Pollen Sublingual Tablet (5GPST) is an alternative AIT in Turkey. The aim of this budget impact model (BIM) was to assess the cost saving potential of the 5GPST in the Turkish reimbursement system. **METHODS:** Cost calculations were made from the payer perspective as per the guidelines of the Social Security Institution (SSI). The time horizon considered in the model was one year. The clinical data and Rescue Medication Scores were acquired from published clinical studies. Direct medical costs were considered in this analysis. Pricing and reimbursement prices data are obtained from Ministry of Health Drug Price List and the Price List of SSI Health Implementation Guideline. **RESULTS:** According to the BIM, total cost of AR treatment for a patient treated with symptomatic treatment alone was 373 TL per year and reached 1.607 TL per year for patients receiving subcutaneous immunotherapy. Total cost of AR with 5GPST with %11 discount for the first reimbursement year was 1.168 TL. Total yearly cost of AR with 5GPST with % 41 discount was 864 TL. **CONCLUSIONS:** Compared to subcutaneous AIT, 5GPST is a cost saving alternative fortreatment of seasonal AR in Turkey from a SSI perspective. The treatment is 27% or 46% cheaper applying 11% or 41% discount rates respectively.

#### PRS24

##### BURDEN OF COMMUNITY-ACQUIRED PNEUMONIA IN ADULTS OVER 18 YEARS OF AGE

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