OBJECTIVES: To assess the relative effects and costs of Oralair® versus Grazax®, ALK Depot SQ® (alongside symptomatic medication) and symptomatic treatment alone for grass pollen allergic rhinitis; based on a systematic literature review, meta-analysis and cost-effectiveness analysis. **METHODS:** The costs and effects of three year treatment were assessed for a period of 9 years using a Markov model. Efficacy was estimated using an indirect comparison of available clinical trials. Estimates for immunotherapy discontinuation, occurrence of asthma, health state utilities, drug acquisition costs, resource use and other medical costs were derived from published sources. The analysis was conducted from the German payer's perspective, including Statutory Health Insurance (SHI) payments and co-payments by insurants. Effects were reported as quality adjusted life years (QALYs) and symptom-free days (SFDs). The uncertainty around the incremental model outcomes was tested by means of extensive deterministic univariate and probabilistic sensitivity analyses; various scenario analyses were also conducted. **RESULTS:** In the base case analysis the model predicted a cost-utility ratio of Oralair® versus symptomatic treatment of €14,728 per QALY: incremental costs were €1,356 (95%CI: €1,230;€1,484) and incremental QALYs 0.092 (95%CI: 0.052;0.140). Oralair® was the dominant strategy compared to Grazax® and ALK Depot SQ®, with estimated incremental costs of -€1,142 (95%CI: -€1,255;-€1,038) and -€ 54 (95%CI: -€188;€85) and incremental QALYs of 0.015 (95%CI: -0.025;0.056) and 0.027 (95%CI: -0.022;0.075), respectively. At a willingness-to-pay threshold of €20,000, the probability of Oralair® being the most cost-effective treatment was predicted to be 79%. The univariate sensitivity analyses show that the results were especially sensitive to changes in transition probabilities of immunotherapy discontinuation and efficacy estimates. Calculations on SFDs showed a comparable cost-effectiveness trend. **CONCLUSIONS:** The analysis suggests Oralair® to be cost-effective compared to Grazax®, ALK Depot SQ® and symptomatic treatment. The robustness of these statements has been confirmed in extensive sensitivity analyses.

PRS42

PHARMACOECONOMIC ANALYSIS OF METHYLPREDNISOLONE ACEPONATE FOR TREATMENT OF ATOPIC DERMATITIS AND ECZEMA

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OBJECTIVES: To conduct comparative pharmacoeconomic analysis of Methylprednisolone aceponate (MA) and Betamethasone valerate (BV, brand name drug) for treatment of atopic dermatitis and eczema in adults. **METHODS:** Review of the published studies has been conducted to evaluate the comparative efficacy and safety of studied drugs. The cost-minimization analysis was used further. The pharmaceutical costs were calculated on the basis of average wholesale prices (according to RMBC/IMS database for the 3d quarter of 2010) and average retail prices in Moscow drugstores on 15.12.2010. The dosing regimen for both drugs was 1 g per 30 cm2 for 10 days, MA once a day, BV twice daily. **RESULTS:** A review of clinical efficacy and safety of topical corticosteroids studies has not revealed significant differences between MA and BV, though the experts consider MA to have more favorable therapeutic index (combination of high anti-inflammatory activity with reliable safety profile) compared to BV. With the retail price the costs of atopic dermatitis and eczema treatment were almost equal for MA and brand name drug of BV: MA cream - 257,85 ± 19,83 RUB (9,15 ± 0,70 $), BV cream - 265,61 ± 33,34 RUB (9,43 ± 1,18 $), MA ointment- 257,85 ± 19,83 RUB (9,15 ± 0,70 $), BV ointment - 265,61 ± 33,34 RUB (9,43 ± 1,18 $). **CONCLUSIONS:** Costs of MA and brand name BV for treating atopic dermatitis and eczema in adults are identical in both retail and wholesale market segments. Thus MA may be considered as a preferable option being a medication with the better therapeutic index compared to BV.

PRS43

PHARMACOECONOMIC EVALUATION OF ANTIBIOTIC THERAPY OF COMMUNITY-ACQUIRED INFECTIONS OF THE LOWER RESPIRATORY TRACTS BY THE USE OF MOXIFLOXACIN VERSUS CLARITHROMYCIN IN UKRAINE

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OBJECTIVES: The community-acquired respiratory tract infections (CARTI) are the most frequent indicators for antibacterial preparations prescription, that requires significant costs. Traditionally, penicillins and macrolids are used for it. Certain perspectives of CARTI treatment are connected with the new generation "respiratory" fluoroquinolones use, that have high antibacterial activity in relation to S. pneumoniae, but are rather expensive, especially in Ukraine. The aim of this work was comparative evaluation of costs efficiency for patients treatment with community-acquired pneumonia (CAP) and exacerbations of chronic bronchitis (ECT) with antibacterial preparations such as fluoroquinolone moxifloxacin versus macrolid clarithromycin for the optimal use of patient's or state's financial expenses grounding. **METHODS:** cost-minimization and sensitive analysis. **RESULTS:** The results of G. Hoffken, H.P. Meyer, K. Sprenger et al.(1999) have been used for pharmacoeconomic evaluation. In the trial 531 patients took place and it lasted 10 days. The treatment regimes were: moxifloxacin (200 mg / day); moxifloxacin (400 mg / day); clarithromycin (500 mg / two times a day). For pharmacoeconomic evaluation of ECT treatment the results of trial (R. Wilson, R. Kubin, I. Ballin et al., 1999) have been used: 649 patients took part in trial. The trial lasted 7 days. The treatment regimes were: moxifloxacin (400 mg / one time a day) for 5 days, clarithromycin (500 mg / two times a day) for 7 days. Efficacy of moxifloxacin and clarithromycin for CAP and ECT was equal. **CONCLUSIONS:** The results of "cost-minimization" analysis are sensitive to prices for drugs changing, and it does not create stable advantages for clarithromycin. In case of maximal price for drugs, it is moxifloxacin that has advantages.

PRS44

COST UTILITY ANALYSIS OF OMALIZUMAB THERAPY FOR SEVERE ASTHMA PATIENTS IN THAILAND

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OBJECTIVES: Asthma is a common chronic disease affecting approximately 4 million or 6.2% of Thais. Most asthmatic patients under the universal health coverage (UC) scheme are poor, and cannot access to appropriate treatments due to geographical barriers, and high costs of medications. Severe asthmatic patients not improved with inhaled corticosteroids (ICS) and long acting beta agonists (LABA) rarely access to Omalizumab, an anti IgE medication, because of its high costs, and exclusion from the UC benefit package. This study explores cost-utility analysis in societal perspective between Omalizumab and standard medical treatments (ICS, LABA, or oral corticosteroid) for severe asthmatic patients. **METHODS:** A mathematical model using variables and data from comprehensive literature reviews and asthma policy model were employed. Data on costs of medication and health service use were computed from existing reports of the Ministry of Public Health. The quality of life of asthma patients was assessed by the Asthma Quality of Life Questionnaire (AQLQ). **RESULTS:** Results from the mathematical model indicate that using Omalizumab compared to other standard medical treatments would achieve 231 quality-adjusted years (QALY) with additional costs of 95 million Baht (approximately US$ 3 million) for 100 severe asthmatic patients. The incremental cost-effectiveness ratio (ICER) of Omalizumab is approximately 414,503 Baht (US$13,371) per QALY gained. This ICER exceeds 1 GDP per capita which is the criteria for including new health interventions into the UC benefit package. **CONCLUSIONS:** Omalizumab is not cost-effective for severe asthma patients in Thailand. It is recommended that improving access to ICS and LABA and maintenance systemic steroid should be the priority of medial care for asthma patients in Thailand, prior to including Omalizumab into the UC benefit package. Omalizumab will be considered to be cost-effective if its cost decreases significantly and used for severe asthmatic patients only.

PRS45

FULLY INCREMENTAL COST-EFFECTIVENESS ANALYSIS OF AVAILABLE TREATMENT OPTIONS IN THE MANAGEMENT OF SEVERE COPD IN THE UK SETTING

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OBJECTIVES: Despite availability of current treatments, patients with chronic obstructive pulmonary disease (COPD), associated with chronic bronchitis, often experience life-threatening and costly exacerbations. The aim of this analysis was to assess the long-term costs and outcomes associated with different treatment options for the management of severe COPD in the UK. **METHODS:** A Markov cohort model was constructed to simulate decline from severe to very severe COPD (as defined by the NICE/GOLD guidelines), treatment regimen changes, and death. Community- and hospital-treated exacerbations were modelled as events within each health-state. A fully incremental cost-effectiveness analysis was conducted for LABA, LAMA, PDE-4 inhibitors, and ICS in various combinations. Transition probabilities for COPD progression were derived from published epidemiological sources. Relative rate ratios of exacerbations were taken from a recently published mixed treatment comparison. Direct costs were sourced from UK data, and health state utilities and exacerbation disutilities from the published literature. Analyses were conducted from the UK NHS perspective, based on a 30-year time horizon, with costs and outcomes discounted at 3.5% p.a. One-way and probabilistic sensitivity analyses were conducted. **RESULTS:** The cost-efficiency frontier suggests LAMA as the most effective monotherapy (£22,370, 5.421 QALYs). If patients continue to exacerbate, LAMA+LABA/ICS is a cost-effective second line option (£22,816, 5.484 QALYs, ICER £7,045/QALY), followed by LAMA+LABA/ICS+roflumilast (£23,230, 5.509 QALYs, ICER £16,566/QALY). For patients who are intolerant to (or decline) ICS, the addition of roflumilast to LAMA+LABA is a cost-effective treatment option (ICER £13,764/QALY). The results were consistent under a variety of assumptions. **CONCLUSIONS:** For severe COPD patients who continue to exacerbate, despite current standard of care, the addition of roflumilast to the treatment regimen is cost-effective in UK clinical practice. The addition of roflumilast in this manner is consistent with the step-wise treatment paradigm recommended in NICE guidelines.

PRS46

EFFECTIVENESS AND COST-UTILITY ESTIMATES OF TIOTROPIUM TREATMENT AND PULMONARY REHABILITATION PROGRAMS IN FRENCH PATIENTS WITH CHRONIC OBSTRUCTIVE PULOMONARY DISEASE

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OBJECTIVES: Chronic obstructive pulmonary disease (COPD) is a progressive (and non-completely reversible) inflammatory lung disease. Disease progression is associated with increasing morbidity, mortality and economic burden. As compared to usual care, tiotropium treatment and pulmonary rehabilitation programs have been reported to improve the health of COPD patients in terms of exacerbations, quality of life, and mortality. However, to date, the cost-effectiveness/utility of these therapies in French settings have not been reported. We estimated the cost-utility/effectiveness of these therapies in a patient population recruited from French general practitioners and lung specialists. **METHODS:** A Markov model of