

RESULTS: The strategy based on initial treatment with fluticasone propionate nasal drops resulted with treatment cost of PLN 768, while early polypectomy resulted with cost of PLN 1251. When surgery was performed in outpatients' settings the mean treatment costs were PLN 586 for initial fluticasone and PLN 751 for early polypectomy. Sensitivity analysis revealed that FPND is less costly therapy unless no computed tomography is performed prior to polypectomy and the cost of surgical procedure falls below PLN 170. **CONCLUSIONS:** Treatment strategy based on fluticasone propionate nasal drops is effective in bilateral nasal polyposis and results in short-term cost savings.

PR59

COST OF COMMUNITY ACQUIRED PNEUMONIA (CAP) TREATMENT WITH KETEK (TELITHROMYCIN) VS CLARITHROMYCIN FROM PUBLIC PAYER PERSPECTIVE IN POLAND

Kawalec P¹, Lis J², Gierczynski J²

¹Jagiellonian University, Krakow, Poland; ²Sanofi-Aventis Poland, Warsaw, Poland

OBJECTIVES: To assess the clinical effectiveness and economic consequences of telithromycin or clarithromycin in CAP treatment from public payer perspective in Poland. **METHODS:** Results of a systematic review of published clinical trials selected in accordance with EBM criteria were used to assess effectiveness and safety of the antibiotics in CAP treatment. The economic consequences for public payer for therapy of individual patient in case of clarithromycin replacement by Ketek (telithromycin) were calculated. In this analysis it was assumed that only pharmacotherapy costs and CAP hospitalization costs differed; other costs were assumed to be the same irrelevant to the antibiotic used. An assumption was made that level of pharmacotherapy reimbursement in case of treatment with both telithromycin and clarithromycin would be the same, public payer costs for DDD were calculated. Costs of CAP hospitalization varied on number of admissions during 1 month of follow-up period. **RESULTS:** Clinical effects of the two drugs were similar and no significant differences in effectiveness or safety were found in pooled data from two randomized clinical trials. Telithromycin treatment was associated with significantly fewer CAP-related hospitalizations compared with clarithromycin (1.6% vs 3.6% patients admitted, respectively). CAP-related hospital costs per patient were much lower for telithromycin treatment compared with clarithromycin (35.5 pln (8.45E) vs. 79.2 pln (18.8E) respectively). Taking into account reimbursement of pharmacotherapy and costs of hospitalization, public payer savings when using telithromycin in place of clarithromycin could be as high as 33 pln(7.8E) – 50 pln(12E)/patient (based on sensitivity analysis). This lead to high annual savings for public payer. **CONCLUSIONS:** Ketek (telithromycin) in place of clarithromycin lead to significant savings for public payer in CAP treatment in Poland.

PR510

PROJECTING THE FUTURE COSTS OF ASTHMA AND COPD IN THE NETHERLANDS

Hoogendoorn M¹, Rutten-van Molken MP¹, Feenstra TL²

¹Erasmus MC, Rotterdam, The Netherlands; ²National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands

OBJECTIVE: This study aimed to project future costs of asthma and chronic obstructive pulmonary disease (COPD) in The Netherlands for the period 2000–2025. **METHODS:** Gender-, age- and (for COPD) disease-stage specific data on direct, medical costs per patient were obtained from a cost of illness study for the year 2000. Cost projections over the period

2000–2025 were based on two types of projections of the prevalence of asthma and COPD. Both prevalence projections were combined with two types of cost projections; first assuming constant costs per patient and second adding asthma and COPD-specific trends in costs for hospital care (asthma, –4.7% and COPD, –4.1% per year) and medication (+4.9% per year) and general trends in remaining cost categories. **RESULTS:** In 2000 the annual costs per asthma patient were €315, compared to €915 for a COPD patient. Assuming constant costs per patient, costs were projected to increase from €141 million in 2000 to amounts between 167 and €181 million for asthma and from 280 to €443–495 million for COPD. Severity stage specific COPD costs increased from 22.6 to 51.2 for mild COPD, from 104 to 148 for moderate, from 99.0 to 140 for severe and from 54.5 to €156 million for very severe COPD. Including trends costs categories resulted in estimates between 460 and 497 for asthma and 1023 and €1130 million for COPD. **CONCLUSION:** Projections of future costs show that the absolute and relative increase in costs over the period 2000–2025 is higher for COPD than for asthma.

PR511

MANAGEMENT OF COPD IN BELGIUM: A REAL LIFE COST OF ILLNESS STUDY

Caekelbergh K, Spaepen E, Annemans L

IMS Health, Brussels, Belgium

OBJECTIVES: To assess the cost of managing COPD (health care payers perspective) in a real life setting in Belgium. **METHODS:** A multi-centre observational study with data-collection in a retrospective way (one-year) was performed. A total of 38GPs and 15pneumologists participated. Patients consulting the physicians in Q4 2004–Q1 2005 were eligible. Individual data-collection sheets per patient, evaluating the yearly medical resource use, were completed by each investigator. Diagnostic methods, COPD severity, as well as smoking habits were evaluated. **RESULTS:** A total of 460 patients were evaluated. Mean age was 66 years, males represented 68.70%. 40.43% of patients were smokers (average n pack-years 36.69, StErr 1.54), 50.22% ex-smokers. COPD diagnosis was made in about half of the patients by both clinical evaluation and spirometry. A total of 13% of the patients had mild COPD, 47% moderate, 30% severe and 10% very severe COPD according to clinical evaluation or spirometry (GOLD-guidelines). A total of 73% of the patients experienced at least 1 exacerbation during the 1-year-study-period. Yearly number of exacerbations ranged between 0 and 12 (average n: 1.37, median: 1.00). In most cases (69.64%), no hospitalisation was needed. If hospitalized, average hospital stay per exacerbation was 13.30 days (StErr 1.03). Yearly COPD-maintenance-treatment cost ranged between 390€ (mild) to €1117 (very severe COPD). Maintenance-treatment included a wide range of medications. Management of COPD resulted in a total yearly cost of €1810 (StErr 139.55, range €537 (mild COPD)—€5888 (very severe COPD)), including maintenance-treatment (€670, StErr 26.67), hospitalisation (€1073, StErr 130.16) and treatment of exacerbations (€67, StErr 6.78). **CONCLUSIONS:** Management of COPD is costly, mainly due to the cost of hospitalisations. For very severe COPD patients, yearly management costs increase up to almost €6000.

PR512

THE BURDEN OF LUNG DISEASE (BOLD) ECONOMIC MODEL

Sullivan S¹, Lee T², Weiss K², Buist S³, Vollmer W⁴

¹University of Washington, Seattle, WA, USA; ²Northwestern University, Chicago, IL, USA; ³Oregon Health and Sciences Center, Portland, OR, USA; ⁴Kaiser Permanente, Portland, OR, USA

OBJECTIVES: Chronic disease imparts significant disability, premature mortality and economic burden on countries. Chronic obstructive pulmonary disease (COPD) will be the fifth leading cause of disability-adjusted mortality in 2020. Causative exposures include tobacco smoke, biomass fuels, occupational and other environmental factors. The Burden of Obstructive Lung Disease (BOLD) project will estimate the prevalence and burden of COPD globally. Here, we on the design, development and application of a population simulation model to forecast country-specific economic burden of COPD. To show feasibility of the model, we report US burden data. **METHODS:** A publicly available population simulation model was developed to estimate annual and future mortality and costs. The model reflects changes in the size, composition and population demographics of the jurisdiction. Input data include disease prevalence from the BOLD COPD epidemiology studies, tobacco smoking and cessation rates, background mortality, disease attributable mortality, annual incidence of COPD, lung function progression data from the Framingham Heart Study and costs. Simulations are based on a starting cohort age 20 years and older in 2005. Five, 10 and 20-year projections are discounted at 3% per year. **RESULTS:** The model projects COPD prevalence to increase each year. In 2005, the projected cost of COPD in the US was \$51.4 billion in medical expenses or \$256 per capita. Cumulative discounted 5, 10 and 20 year medical costs for COPD were \$304.9 billion, \$678.4 billion and \$1415.3 billion. **CONCLUSIONS:** COPD is one of the world's leading causes of disability and mortality. The economic consequences of tobacco use and occupational exposures leading to COPD are substantial. We developed this model as part of a global burden identification and reduction project. Here, we show its application for burden simulation with US data, but intend a larger global effort in conjunction with the BOLD project.

PRS13

COST ANALYSIS OF HEALTH CARE RESOURCE UTILIZATION DURING TREATMENT FOR RESPIRATORY TRACK INFECTIONS (RTIS) WITH TELITHROMYCIN OR CLARITHROMYCIN OR AMOXICILLIN/CLAVULANIC ACID IN GREECE

Angeli A¹, Maniadakis N²

¹Sanofi Aventis Greece, Athens, Greece; ²University Hospital of Heraklion, Crete, Greece

OBJECTIVES: To compare direct medical costs related to the management of community acquired pneumonia (CAP) and acute exacerbations of chronic bronchitis (AECB) between telithromycin (TEL) and clarithromycin (CLA) or amoxicillin/clavulanic acid (AMC), in both public and private sector in Greece. **METHODS:** A health outcomes model was developed from three Phase III multinational clinical studies comparing TEL with CLA in CAP, and with AMC in AECB. In each study patients were followed for 36 days and the primary endpoint was clinical efficacy at post therapy visit. Health care resources included in the model were additional non-protocol antibiotics, hospitalizations, laboratory tests and outpatient health care professional visits. Two cost analyses were performed; one from the perspective of Greek Health care System by using public sector unit costs and one from private sector perspective in Greece (including both reimbursable costs and out of pocket costs) in an effort to present a more realistic case for Greece. **RESULTS:** From the Greek Health care System perspective, the use of TEL instead of CLA in CAP resulted in cost savings of up to €49 per patient and up to €20 per patient when compared with AMC in AECB. For the Greek private sector, TEL cost differences were even greater, up to €71 when administered for CAP instead of CLA and up to €28 in AECB instead of AMC.

The cost savings resulted from TEL patients required fewer non-protocol additional health care resources (mainly a lower rate of hospitalization and shorter length of stay) than the patients in the comparator groups in both CAP and AECB. **CONCLUSION:** In Greece the use of telithromycin as a first line treatment option for CAP and AECB instead of clarithromycin or amoxicillin/clavulanic acid respectively, may significantly reduce health care costs in both public and private sector.

PRS14

HEALTH CARE RESOURCES UTILIZATION IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE ACCORDING TO THEIR SEVERITY IN SPAIN

De Lucas P¹, Rodríguez JM¹, Martín A², Soto J²

¹Gregorio Marañón Hospital, Madrid, Spain; ²Pfizer Spain, Alcobendas, Madrid, Spain

OBJECTIVE: Chronic obstructive pulmonary disease (COPD) accounts for about 10% of patient visits to a pneumologist, 7% of all hospital admissions, and 35% of permanent work disability. The aim of this study has been to assess health care resources utilization in Spain depending on the severity of the disease. **METHODS:** This analysis has been carried out through the design of a one-year retrospective naturalistic study performed through the whole Spanish territory, including both urban and rural areas. There have been included 9,045 COPD patients with a mean age of 67 ± 9.8 years. The severity of the disease was as follows: 33.8% mild (FEV1: 60–80% of predicted), 49.3% moderate (FEV1: 40–60% of predicted) and 16.8% severe (FEV1 < 40% of predicted). Health care resources collected were: added visits to the general practitioner (GP) and pneumologist, added visits to the emergency room, length of stay in the hospital and number of days off work. **RESULTS:** Severe COPD patients presented more added visits to the GP compared to moderate and mild COPD patients (5.83, 4.65 and 3.25 respectively, $p < 0.001$), likewise with regard to added visits to the pneumologist (1.55, 1.09 and 0.62 respectively, $p < 0.001$) and added visits to the emergency room (2.50, 1.62 and 0.9 respectively, $p < 0.001$). In addition, severe COPD patients showed a longer length of stay in the hospital than moderate and mild COPD patients (16.7 vs. 10.9 and 8.8 days respectively, $p < 0.001$) and less days off work (51.2, 29.4 and 18.9 respectively, $p < 0.01$). **CONCLUSIONS:** Severe COPD patients require higher health care resources utilization than moderate and mild patients. Therefore, it is necessary to elaborate programs and policies focused in diagnosing early COPD patients to try to avoid progression of mild patients to moderate and severe stages of the disease.

PRS15

OUTCOMES, RESOURCE CONSUMPTION AND COSTS OF INTENSIVE CARE PATIENTS HOSPITALIZED WITH ACUTE RESPIRATORY DISTRESS SYNDROME (ARDS) IN THE USA AND CANADA

Eichmann F¹, Reitberger U¹, Caesar M²

¹Kendle GmbH & Co GMI KG, München, Germany; ²Altana Pharma AG, Konstanz, Germany

OBJECTIVES: To describe ARDS patients regarding survival, ventilation status, predisposing events, disease characteristics, length of hospital stay and duration of ventilation. **METHODS:** In a phase III clinical trial investigating treatment with Venticute (rSPC surfactant) compared to standard treatment in patients hospitalized for ARDS (NEJM 351, 884–892, 2004), patients were followed up for up to one year after randomization. This analysis is focused on the initial hospitalization and describes the pooled results from both treatment groups. Data were collected for 197 patients by means of a specific questionnaire covering