77% in 2003 to 72% in 2012, only generic increased from 7% to 9% and mixed from 16% to 19%. In 2012 the proportion generic dispenses was highest for salbutamol with 53% in children and 51% in adults. **CONCLUSIONS:** Generic dispensing is increasing, probably due to preferential policy of the Dutch healthcare insurances. Switching drugs may increase confusion and mistakes in inhalation technique, causing less effective treatment and lower adherence.

PRS70

DO CLINICAL GUIDELINE IMPLEMENTATIONS REDUCE THE GOVERNMENT BUDGET? A CLINICAL GUIDELINE-BASED BUDGET IMPACT MODEL IN REIMBURSEMENT OF INHALER TREATMENTS IN COPD

Gungor C, Konya A, Keskinaslan A

Novartis AG, Istanbul, Turkey

OBJECTIVES: COPD market is highly boosted by combinations caused by over-treatment and misclassification of the patients. Physicians have high tendency to prescribe triple combinations for COPD patients without making classification for severity. The objective of this analysis is to develop a clinical guideline based budget impact model for COPD to inform reimbursement decision. **METHODS:** A model was developed to estimate the four-year budget impact of gradually increasing compliance with clinical guideline based treatment in COPD patients who are currently under overtreatment. Only inhaler drug acquisition costs from payer perspective were considered for each treatment class defined in the guideline. Inputs for the model were derived from 2 studies to compare the inhaler consumption in practice and guideline recommendation by categories. Patient percentage and treatment class used in each category are obtained from ALPHABET study, projected to the currently treated COPD population in Turkey. Indacaterol, a LABA, was taken into account as a first step of complying with guideline-based treatment approach based on its superior outcomes in first line medication. The model did not account for patient co-payments, drug prices are assumed to be constant in 4 years. **RESULTS:** For a COPD market with a treatment regimen gradually complying with GOLD guideline in 4 years, the model estimated 20%(mioTL -24.7) cost reduction in government budget. From first to fourth year, the impact is -13%(mioTL-5.8),-17%(mioTL-6.0),-22%(mioTL-6.3) and -26%(mioTL-6.6) respectively. **CONCLUSIONS:** The model budget impact of implementing clinical guidelines with evolving treatment regimen towards LABA and LAMA combinations and its mono components may reduce the overuse of drugs and government spending on COPD treatments. Based on these assumptions, budget impact of future treatment that will help physicians to comply with treatment guidelines may change. Model can be adapted accordingly. Reimbursement bodies might be better off moving toward aligning reimbursement decisions with clinical guidelines in the future.

PRS71

STUDY OF ACUTE LOWER RESPIRATORY TRACT INFECTIONS IN CHILDREN OF AGE GROUP 1 MONTH TO 5 YEARS

Kanneganti S

Acharya Nagarjuna University, Guntur, India

OBJECTIVES: 1) To study the clinical, radiological and epidemiological features of severe pneumonia in children in age group of 1 month to 5 years of age; 2) To correlate clinical findings with radiological and bacteriological examination; 3) To know the choice of antibiotic for severe pneumonia. **METHODS:** This was a prospective clinical study of severe pneumonia conducted on 200 children who were admitted to pediatric wards from October 2010 to September 2012 at Gout General Hospital, Guntur. The epidemiological factors affecting the same were also studied. **RESULTS:** Age groups/Number of cases Percentage: 1m–6m/67 33.5; 7m–12m/52 26; 13m–60m/81 40.5. Table 1: Distribution of cases according to age Sex Number of cases Percentage Male 130 65 Females 70 35 Table 2: Distribution of cases according to sex Symptoms Number Percentage Cough 199 99. 5 Fever 184 92 Hurried breathing 200 100 Refusal of feeds 80 40 Wheeze 50 25 Convulsions 15 7. 5 Cyanosis 8 4 Table 3: Showing various symptoms **CONCLUSIONS:** ARI, especially severe pneumonia is one of the major causes of morbidity and mortality in children. Bronchopneumonia is the predominant form of presentation in infants and preschool children. Among the risk factors studied, inappropriate immunization for age, anemia, PEM grade III and IV were significant risk factors in severe pneumonia. Symptoms and signs mentioned in the WHO ARI control programme were very sensitive and can be applied to hospitalized children. Chest X-ray is a valuable aid in the diagnosis of pneumonia in children. Follow up chest roentgenogram is vital for evaluating the response to treatment in pneumonia. Crystalline Penicillin and amikacin are still the antibiotics of choice in pneumonia. Indiscriminate use of higher antibiotics in not justified, in view of emergence of drug resistant organisms.

PRS72

AVAILABILITY OF DRUGS RECOMMENDED BY GLOBAL INITIATIVE FOR CHRONIC OBSTRUCTIVE LUNG DISEASE (GOLD) FOR UKRAINIAN PATIENTS WITH COPD

Iakovlieva L, Bondarenko D, Matyashova N, Tkachova O

National University of Pharmacy, Kharkiv, Ukraine

OBJECTIVES: A lifelong nature of COPD therapy requires significant costs from the patient's budget. GOLD develops recommendations for the treatment of COPD, which correspond to the modern level of medicine and ensure proper quality of patients' lives. The aim of this work is to identify the availability of drugs recommended by GOLD for patients in Ukraine from the perspective of physical availability of the drug in a pharmacy and in terms of its affordability. **METHODS:** To determine the affordability of drugs, the paying capacity adequacy rate (Ca.s.) for 2014 was calculated. **RESULTS:** In the Ukrainian market, there are 18 out of 32 drugs recommended by GOLD for the treatment of stable COPD course. A group of long-acting anticholinergics (2 out of 4 drugs) and combined drugs glucocorticosteroids + β2-agonists in one inhaler (2 out of 4 drugs) is presented insufficiently, and long-acting combinations of anticholinergic + β2-agonists are not available in the market. According to capacity adequacy rate (Ca.s.), in 2014 a month of treatment with the studied drugs cost 0.2 % to 58.01 % of the average monthly salary of the patient. In 2014, the least affordable drugs for patients with COPD were drugs from the inhaled corticosteroids group: Flixotide nebules, Nebufluzone and Pulmicort, the cost of which varied from 19.86% to 58.01%, which can be afforded only by patients with incomes above the average. The most affordable drug is a short-acting β2-agonist– salbutamol (Ca.s. 0.43-15.70%). **CONCLUSIONS:** Ukraine faces a rather difficult situation for patients with COPD. Drugs recommended by GOLD are presented insufficiently, and a large number of drugs available in the market are not readily available to patients.

PRS73

COST AND RESOURCE UTILIZATION OF UNCONTROLLED AND PERSISTENT ASTHMA IN CANADA: A SYSTEMATIC LITERATURE REVIEW

Lachaine J[1], Bibeau J[1], Castonguay A[1], Barakat S[2]

[1]*University of Montreal, Montreal, QC, Canada,* [2]*Teva Canada Innovation, Montreal, QC, Canada*

OBJECTIVES: Asthma is a chronic inflammatory airway disease that causes a significant economic and humanistic burden. The objective of this study was to systematically review the evidence on cost and resource utilization in uncontrolled and persistent asthmatic patients in Canada. **METHODS:** A literature search was performed using keywords such as "asthma", "hospitalization", "medical services", and "cost". The search was conducted in the MEDLINE, EMBASE and PubMed electronic databases from January 1st 2005 to May 28th, 2015. To be eligible, studies had to be Canadian, focus on uncontrolled or persistent asthma and include cost or resource utilization data. **RESULTS:** The search retrieved 17,335 studies of which 7 fulfilled the eligibility criteria. Among the 7 retrieved studies on uncontrolled or persistent asthma, 6 reported resource utilization data and 3 reported cost data. Among the resource utilization studies, 6 reported data on hospitalizations, 4 on emergency department (ED) visits and 3 on physician visits at a patient-level. The hospitalization rate ranged from 15% to 64.5% per patient per year and the mean hospitalization length of stay was 1.83 days. The rates for ED visits ranged from 3.4% to 50.4% with 2 studies reporting rates over 20%. One study reported a mean physician-visit rate of 50% per patient per year while another study reported that 64.3% of the patients had at least 4 physician-visits per year. In the cost studies, the total mean direct cost in adjusted 2015CDN$ per patient per year ranged from $413 to $1,764, carrying overall additional cost for uncontrolled asthma to nearly $189 million annually in Canada. **CONCLUSIONS:** This analysis indicates that uncontrolled and persistent asthma is associated with considerable cost and resource use, especially regarding hospitalizations, ED visits and physician visits at a patient-level, thus leading to an important economic burden at a population-level in Canada.

PRS74

ASSESING THE NET FISCAL CONSEQUENCES OF TOBACCO USE IN A HIGH CONSUMPTION AND HIGH TOBACCO TAX COUNTRY: THE CASE OF GREECE

Kotsopoulos N[1], Mergos G[2], Postma M[3], Connolly M[3]

[1]*Global Market Access Solutions, St-Prex, Switzerland,* [2]*Univeristy of Athens, Athens, Greece,* [3]*University of Groningen, Groningen, The Netherlands*

OBJECTIVES: Greece has increasing prevalence of tobacco use and one of the highest consumption rates in Europe. Notwithstanding that tobacco tax is an important fiscal revenue, smoking represents a major public health threat causing premature mortality, morbidity, costs and foregone productivity which are a major source of fiscal loss. The objective of this study was to assess the net fiscal impact of hypothetic tax increases to inform public policy. **METHODS:** Evidence for the prevalence of smoking and smoking-attributable mortality (SAM) in Greece was synthesized with economic data to assess the net fiscal impact of tobacco use. SAM was converted into productivity (earnings) loss and tax revenue (fiscal) loss. Mincer functions were used to project lifetime earnings and direct and indirect per person tax for smokers and ex-smokers. Average tobacco consumption was used to quantify the expected tax revenue from tobacco consumption tax and published price elasticities were employed to explore the impact of hypothetical tax and price increases. **RESULTS:** The averted mortality, by a 10% increase in the price of tobacco products, is expected to avert productivity loss of €4.4-6.9 million that corresponds to averted fiscal loss of €1.5-2.5 million as measured by expected lifetime tax. Based on previous studies, healthcare cost savings were estimated by previous studies at €24-€149 million. Higher price increases yielded higher epidemiological, societal and fiscal benefits. Tobacco consumption appears to be inelastic thus, tax revenue was not reduced in the absence of lower consumption. **CONCLUSIONS:** Smoking represents both a source of fiscal revenue and loss for central government. Price increases, through tobacco tax, may be a fiscally meaningful policy for reducing the burden of smoking. Although there are likely to be upper limits to which further tax increases will not discourage tobacco consumption. Assessing the net fiscal impact may be a useful tool for tobacco-control policy evaluation.

PRS75

RESOURCE USE AND EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) BY GOLD CATEGORIES

Merinopoulou E[1], Raluy-Callado M[1], Ramagopalan S[1], MacLachlan S[1], Khalid JM[2]

[1]*Evidera, London, UK,* [2]*Takeda Development Centre Europe Ltd, London, UK*

OBJECTIVES: Exacerbations of COPD contribute to overall disease severity and can be an important driver of increased healthcare resource utilisation. This study aimed to estimate COPD exacerbation rates and assess primary and secondary care resource utilisation in England, using GOLD 2013 categories from A: low risk, less symptoms to D: high risk, more symptoms. **METHODS:** Patients with a diagnosis of COPD aged ≥40 years before January 1, 2011, registered in the Clinical Practice Research Datalink linked to Hospital Episode Statistics with complete spirometric and modified Medical Research Council Dyspnoea Scale information and exacerbation history were included and further classified into GOLD risk groups. Patient characteristics were described at baseline. Study outcomes were exacerbations rates, and resource utilisation comprised of general practitioner (GP) visits and