Patent. Compared to symptomatic therapy, patient with AR treated with allergen immunotherapy obtained approx. 0.75 month (5 years of vaccination after 5-yr vaccination and 3.5 months for 4 yrs of vaccination) without AR. The QALY costs for calculation were 85616 € - 8883 €.

CONCLUSIONS: In the Slovak Republic, Staloral allergen immunotherapy of allergic rhinitis is effective from the clinical as well as pharmaco-economic point of view.

PRS15 THE ECONOMIC IMPACT OF COPD IN PATIENTS OF WORKING AGE: RESULTS FROM ‘COPD UNCOVERED’ THE NETHERLANDS

van Boven J1, Van Der Molen T2, Postma M1, Veger S3

1University of Groningen, Groningen, The Netherlands, 2University Medical Center Groningen, Groningen, The Netherlands, 3University of Groningen, Groningen, The Netherlands

OBJECTIVES: Chronic Obstructive Pulmonary Disease (COPD) poses a significant burden on health care budgets. The impact of impaired and lost productivity is less known. The aim of this study was to explore the economic burden of COPD in patients of working age in The Netherlands across three areas: health care utilization, impaired productivity and lost productivity resulting from early retirement due to COPD. METHODS: Dutch direct medical costs were derived from a literature review and applied to individual COPD patients. Costs of productivity impairment due to COPD were estimated from the ‘COPD uncovered’ survey, adopted for The Netherlands. Costs due to lost productivity due to early retirement were based on a cohort of COPD patients of working age following a Markov model for 20 years until (early) retirement or death. The costing year was 2011. RESULTS: The annual health care costs for patients with COPD aged 45-64 years in The Netherlands were estimated at around €70 million. The annual impaired productivity costs were €120 million. Lost productivity due to early retirement were estimated at around €510 million for men and €150 million for women per year; the majority of €550 million for men and €60 million for women. These lost productivity costs represented 21% of the productivity that may have been generated by COPD patients if they had not retired early. CONCLUSIONS: The ‘COPD UNCOVERED’ model was used to estimate the economic burden of COPD in The Netherlands due to impaired and lost productivity in COPD patients of working age was considerable and several times higher than the medical cost of COPD. Young working population provide a main target for interventions aimed to improve COPD disease management.

PRS16 SOCIOECONOMIC BURDEN OF COPD IN UKRAINE: 2012-2020 PERSPECTIVE MODELING

Tebulaieva V1, Zalis’ka O2, Kacherya J1

1Tehran University of Medical Sciences, tehran, Iran, 2National Pharmaceutical University, Lviv, Ukraine

OBJECTIVES: According to the GOLD report (2011), COPD is associated with significant economic burden. For Ukraine as for developing country, the human capital (employed economically active population) is the most important national asset and COPD-related work-place loss may represent a serious threat for Ukrainian economics. METHODS: Via the best fit (least square) linear regression forecast we modeled the 2012-2020 dynamics of the key socioeconomic and COPD-related epidemiological indicators for general Ukrainian population and employed economically active population. Modeling was based on the 2005-2011 reports of the Ukrainian National Center of Statistics and data from WHO. Using forecasting results the number of employed economically active population and COPD-related deaths 2012-2020 was calculated. Also we calculated and compared 2012 and 2020 direct and indirect costs. RESULTS: According to the forecasting results, number of total Ukrainian population and employed economically active population could amount 45453100 and 20393267, respectively, in 2012 and 43484907 and 20845448, respectively, in 2020. Number of COPD patients in 2012 and 2020 could be 1766748 and 1731332, respectively, in general population and 57037 and 25892, respectively, in employed economically active population. We estimated that in 2012 direct COPD costs could be 87,17% greater than indirect COPD costs and could amount €49699742,8 vs. €498052,34 in 2020. Indirect cost COPD deaths could be 1,47% exceed the direct costs and could amount €49699742,8 vs. €49796409, respectively. CONCLUSIONS: Results of modeling show that socioeconomic burden of COPD will be significant for Ukraine during the 2012-2020 periods. COPD costs will rise with the significant growth of indirect costs, which may be typical for Ukraine as for developing country.

PRS17 AVAILABILITY, AFFORDABILITY AND PRICE OF ASTHMA MEDICINES IN TEHRAN, IRAN

Kebriaee A1, Rasdadian A2, Ghasi G2, Salamzadeh J3, Dorkoosh FA2

1Tehran University of Medical Sciences, tehran, Iran, 2TUMS, tehran, Iran, 3National Pharmaceutical University, Lviv, Ukraine

OBJECTIVES: Asthma, a major chronic respiratory disease, has become a cause of global concern in terms of its increasing prevalence, morbidity and economic impact. Our aim was to examine the availability, pricing and affordability of asthma medicines in Tehran, Iran. METHODS: The study methodology was designed using the recommendations developed by the World Health Organization and Health Action International on measuring medicine prices, availability, affordability and price components. Data was collected from 5 public sector facilities and 10 private sector retail pharmacies in the pilot study in 22 regions of Tehran. Data on price of innovator brands (IBs) and lowest priced generics (LPGs) found at each facility were gathered and applied for data analysis. RESULTS: Generic beclomethasone was found in 3 public sectors and generic salbutamol was available in 4 public sectors. The availability of IIB beclomethasone was reported in 80% of the regions surveyed (IBs), salbutamol inhalers was available at 2 out of 5 and out of 4 facilities surveyed in public and private sectors, respectively. The availability of generic beclomethasone inhalers was 90%. IB salbutamol inhalers were available in all the surveyed regions. The lowest paid unskilled government worker earns 85% of Iranian Rial (IRR) (US$1 11.78) per day. CONCLUSIONS: The poor availability of inhalers at public facilities affects those patients who depend on these facilities for treatment and medications. In the past decade, some barriers were imposed by the Ministry of Health on registering certain pharmaceuticals. A new approach has focused on reducing these barriers and there is a need for stronger government action to introduce or improve national medicine policy as well as effective pricing policies.