annual total cost per subject in relation to disease severity (GOLD) was: €783 (mild), €2,567 (moderate), €6,818 (severe), and €19,927 (very severe). Indirect costs were higher than all severity stages with a percentage of 52% of all costs, which were hospitalized in severe and very severe disease, and drugs in mild and moderate COPD, respectively. The main cost driver in indirect costs was productivity loss due to early retirement, except in mild disease where the driver was sick leave. Costs were calculated in the same way for all severities. The increase in mean annual total costs per subject was observed (ns). The total costs of COPD in 2010 could be estimated to about €1212-1469 million, with indirect costs accounting for about 70% of the total costs. CONCLUSIONS: The costs of COPD are still high in Sweden, and the costs increase considerably by disease severity.

PSRS2

RESOURCE UTILIZATION AND ASSOCIATED COSTS OF COMMUNITY ACQUIRED PNEUMONIA (CAP) IN ADULTS: OBSERVATIONAL STUDY IN A POPULATION SETTING IN A WELL DEFINED AREA OF BARCELONA (BADALONA, SPAIN)
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OBJECTIVES: This study aimed to assess the economical impact of the CAP patients identified through the study period. METHODS: Retrospective review of medical records of all patients ≥18 years old diagnosed with CAP from January 1, 2008 to December 31, 2009 belonging to Badalona (population ≥18 years: 90,315) and attended by 6 primary care centres and 2 hospitals (68,274 patients seen throughout the study period, 6 months). Ecomonical analysis (resource utilization and direct/indirect associated cost) is presented. Statistical analysis was performed through a regression model and Bonferroni-adjusted ANCOVA; p<0.05. RESULTS: Among the 581 patients identified [55.6% males, mean age 57.5 (SD 19.1)], 41.5% (241) were hospitalized. Total cost per patient was €13,636 (95% CI 15.6% related to healthcare direct costs and 14.8% to non-health care costs due to sick leaves). Ambulatory care accounted for 154.24 € (13.25%) and hospital care 101.25€ (86.75%) of the direct costs; p<0.001. Greater impact was due to hospitalization length of stay (71.47%), primary care pharmacological costs (11.24%) and specialist visits (11.42%). CAP costs were related to age (r=0.303), Fine scale score (r=-0.437) and re-hospitalization (r=-0.667); p<0.001. Overall cost per patient increased with age (1138€ in patients <65-old vs. 1716€ in ≥65-year-old; p<0.001). CONCLUSIONS: CAP is still associated with high economic burdens in our country which is mainly due to hospital care costs (almost one out of two patients were hospitalized). New preventive measures under development could reduce this impact.

PSRS2

ESTIMATION OF DIRECT AND INDIRECT COSTS OF COPD IN UKRAINE: THE PILOT STUDY RESULTS
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OBJECTIVES: The first official data on COPD prevalence, morbidity and mortality in Ukraine were introduced in 2009 report of National Center of Medical Statistics (2010). Nevertheless, there were no information on a number of specialists’ consultations, a number of disability days and hospitalizations’ frequency in Ukrainian COPD patients reported. METHODS: Real-life 12 previous months data from the personal medical cards (90%) and interview-lists (10%) of II-III severity stage COPD patients were analyzed retrospectively. The study was conducted in three regional clinical centers Bila-Tserkva (Kiev region), Ivano-Frankivsk, Lutsk (Ivano-Frank. region). Costs included all medical care related through the hospitalization of a number of GPs’ and pulmonologists’ consultations, a number of lost working days due to COPD, and COPD related hospitalizations frequency during the last 12 months. Direct medical costs included outpatient costs (specialists’ consultations, control spirometry once a year) and inpatient costs (diagnostic measures and hospital-service costs), indirect costs included productivity loss (absenteeism and preeminence) and disability compensation. The 2010-2011 medical service inflation (11.45%), salary growth rate (25%), social tax (18.6%) and Value Added Tax (17%) discounted the calculation. Exchange rate 1EUR = 11.42UAH on 18.06.2011. RESULTS: The total study sample contained 132 patients, aged from 24 to 65 (mean age 49.49±10.02), males - 60.61 %. The number of GPs’ and Pulmonologists’ consultations per COPD patient was 2.63 and 1.18 per year respectively. The number of lost working days due to COPD was 12.63 per patient annually and a frequency of COPD related hospitalizations was 0.56 per 12 months. The total COPD costs in Ukraine from 2009 were €887,056 (103.03 per patient) with €284,4213 (73.8%) direct medical costs and €1,042,2293 (26.2%) indirect costs. CONCLUSIONS: The pilot study results showed that costs per COPD patient in Ukraine are large and could correspond with costs in several EU countries. Neon Vietnam, COPD in Ukraine is underdiagnosed and underestimated.

PSRS3

HIGH COST CYSTIC FIBROSIS PATIENTS AS IDENTIFIED IN A US CLAIMS DATABASE: A CLOSER LOOK AT THE TAIL
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OBJECTIVES: Cystic fibrosis (CF) is an inherited disease that leads to progressive damage to the respiratory system, the digestive system, and other organs. Medical care utilization for patients with CF can be substantial. Recent studies of privately insured patients with CF in the US have been fairly consistent in their estimates of annual costs for the average or median patient with CF. However, the variation in cost is considerable and those patients in the tail of the distribution are also those with the most severe disease. METHODS: A national employer-based claims database for the years 2004 to 2008 was used to identify patients with a valid CF diagnosis using multiple criteria. There were a total of 5019 unique patients with CF who had at least 1 year of continuous enrollment in the health plan. Annual all cause costs per patient were calculated by different severity levels. The distribution of total costs was examined and the top 2.5 percentage (111 patients) were identified as high cost users. RESULTS: While the average annual cost was approximately $50,000 for patients in our data, the average for the high cost users was far higher tenfold and ranged between $270,000 and $3.1 million. The vast majority of these costs were for inpatient stays with the average number of days spent in the hospital of 87 days. CONCLUSIONS: In this study we used a US administrative claims database to take a closer look at the most resource intensive patients with CF. A greater understanding of this group of patients and the determinants of the level of expenses to be incurred in the treatment of severe illness and aid in cost-analysis of treatments.

PSRS4

IMPACT OF AGE AND PATIENT CO-MORBIDITIES ON COMMUNITY ACQUIRED PNEUMONIA (CAP) RELATED COSTS AT THE HOSPITAL SETTING IN A WELL DEFINED AREA OF BARCELONA (BADALONA, SPAIN)
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OBJECTIVES: This study aimed to assess the economical impact of the hospitalized CAP patients identified through the study period. METHODS: Retrospective review of medical records of all patients ≥18 years old diagnosed with CAP from January 1, 2008 to December 31, 2009 belonging to Badalona (population ≥18 years: 90,315) and attended by 6 primary care centres and 2 hospitals (68,274 patients seen throughout the study period). Ecomonical analysis of hospitalized CAP (resource utilization and direct/indirect costs) was performed using a regression model and Bonferroni-adjusted ANCOVA; p<0.05. RESULTS: Among the 518 patients diagnosed with CAP included, 241 were hospitalized (45.1%), mean age 66.6 (SD 16.4) years-old, 55.6% males. Adjusted mean total cost per patient was 2,332.4€ (sick leaves: 191.6€, healthcare direct costs: 1,940.8€). Healthcare cost was mainly caused by hospital length of stay and specialist visits costs. Likelihood of inpatient admission increased with liver disease (OR=5.9), stroke (OR=3.6), dementia (OR=3.5), COPD (OR=2.9), diabetes mellitus (OR=1.9) and age (OR=1.1). Patients suffering from these co-morbidities (except dementia) had higher hospital related costs: liver disease (2896.6€, stroke (2960.24), COPD (2701.9€) and diabetes mellitus (3,057.7€); p<0.001. Direct hospital costs per patient increased with patient age (805€ in patients <65-old vs. 1,716€ in ≥65-year-old; p<0.001). Streptococcus pneumoniae was the most prevalent pathogen identified (62/114 culture-positive inpatients (71.9%). Patients with confirmed pneumococcal pneumonia had greater overall mean cost (2864.7€ vs. 2259.8€; p=0.041) and healthcare cost (2722.1€ vs. 2,153.6€, p=0.047) than those not-infected. CONCLUSIONS: CAP caused great hospital resource utilization, mainly due to hospitalization days. Those patients older and/or suffering from co-morbidities had greater likelihood for inpatient admission and higher hospital related costs.

PSRS5

SYSTEMATIC LITERATURE REVIEW OF ECONOMIC AND HUMANISTIC BURDEN OF DYSPNEA IN COPD
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OBJECTIVES: To review published evidence on the economic and humanistic (health related quality of life and economic burden in COPD. There are significant variations in the current evidence base, further research is required before firmer conclusions can be drawn.

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