population would be ca 130,000,000 PLN in 2011 and will steadily increase to ca 203,000,000 PLN in 2015. In case of tenofovir reimbursement estimated decrease in total expenditures will be ca 6,000,000 PLN in 2011 and ca 11,000,000 PLN in 2015.

CONCLUSIONS: The decision for tenofovir reimbursement will cause decrease in public payer expenditures for patients with chronic hepatitis B.

PIN19 PHARMACOECONOMIC ANALYSIS OF PEGYLATED INTERFERON ALFA USE IN CHRONIC HEPATITIS C

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OBJECTIVES: Budget impact analysis of chronic hepatitis (HCV) pharmacotherapy with PegIFN alfa-2a and PegIFN alfa-2b. RESULTS: The Rational Drug Use Indicator (RDUI), which allows to quantitatively describe the economic effectiveness of a particular drug taking into account its useful application potential. The modeling was based on the data collected in IDEAL clinical study. The model considered two groups of HCV genotype 1 patients, equal in number (1000 patients per group) and comparable in demographic, clinical, and virological characteristics: group 1 – patients receiving PegIFN alfa-2a, group 2 – PegIFN alfa-2b. Patients’ age and weight, as well as the drug dose were taken into account. A sensitivity analysis was performed in modeling the number of patients treated with PegIFN alfa-2a and PegIFN alfa-2b. RESULTS: It is estimated that under the given model conditions the direct costs per patient in PegIFN alfa-2a treatment of hepatitis C for 48 weeks amounted to 419,199.36 rubles, and PegIFN alfa-2b – 422,637.12. The direct costs difference in the 1:1 ratio of patients treated with PegIFN alfa-2a and PegIFN alfa-2b amounted to 1,718,880 rubles. As shown by the RDUI calculation, inefficient budget expenditure in the case of using PegIFN alfa-2b versus PegIFN alfa-2a is calculated as 0.5 days in CEAZ group

PIN20 CLINICAL AND ECONOMICAL IMPACT OF PNEUMOCOCCAL VACCINATION IN SPANISH ADULT POPULATION MEASURED BY A DYNAMIC MODEL

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OBJECTIVES: The aim was to assess the economic impact of the 13-valent pneumococcal conjugate vaccine (PCV13) administered annually to 65-years-old cohort in Spain versus the alternative of not vaccinating and treating patients only when infected. METHODS: Infections avoided were calculated through a dynamic model based on Anderson and May work. 70% of the 65-years-old cohort was assumed as vaccinated with one PCV13 dose (318,000 subjects). Basecase estimated vaccine efficacy and serotype coverage were as follows (75% and 70% respectively). Disease cost was calculated based on CMDB database and published data. RESULTS: During the 5 years frame, a total of 83,844 infections would be avoided. Net savings of 662 million would be obtained. The distribution of the savings was heterogeneous, starting from 0 in 2011 and increasing until the 5th year. To demonstrate model robustness, analyses of additional scenarios have been performed using extreme values of model parameters (vaccination programme coverage, vaccine efficacy, serotype coverage). UNDER THE ASSUMPTIONS: After three years, 65-year-old pneumococcal vaccination campaign appeared to be a cost saving intervention among Spanish population under different scenarios.

PIN21 CLINICO-ECONOMICAL EVALUATION OF TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA (CAP) COMPLICATED BY SEPSIS WITH MOXIFLOXACIN COMPARED TO CEFTRIAXONE + AZITHROMYCIN

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OBJECTIVES: Evaluation of comparative cost-effectiveness of treatment of CAP complicated by sepsis with moxifloxacin compared to ceftriaxone + azithromycin in adult patients. METHODS: Literature search revealed prospective non-randomized controlled clinical trial (n=77) where treatment efficacy of CAP complicated by sepsis was evaluated. MOX group received moxifloxacin (400 mg i.v.) 3-4 days with further switch to 400 mg per os daily. CEAZ group received combined therapy with ceftriaxone 2000 mg i.v. and azithromycin 500 mg during 5 days. Efficacy criteria were length of antibacterial treatment, ICU and in-hospital days. Cost-effectiveness analysis was performed. RESULTS: Patients of MOX group spent 2.7±1.3 ICU days compared to 3.9±1.4 days (p=0.05) in CEAZ group. Antiinfectious treatment took 7.0±4.0 days in MOX and 10.0±5.5 days in CEAZ group (p=0.05). There was statistically significant difference in hospital stay days. Costs of antibacterial treatment and ICU stay were 17,803 RUR ($447) per patient in MOX group and 19,020 ($478) in CEAZ group. CONCLUSIONS: treatment of CAP complicated by sepsis with moxifloxacin compared to combined therapy in adult patients leads to ICU stay reduction by 1.2 days and cost saving by 1216 RUB ($31).

PIN22 COMPARISON OF TWO DYNAMIC MODELS PREDICTING FUTURE BURDEN OF ILLNESS OF HEPATITIS C (HCV) IN THE EU-5 (FRANCE, GERMANY, ITALY, SPAIN, UK)

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OBJECTIVES: The objective was to compare two modeling approaches to estimate the future burden of hepatitis C in selected countries. Due to varying efficacy depending on host factors such as viral load at baseline, disease duration, pre-treatment type, and disease severity, different complex models are required. METHODS: Two models were developed. Model A was based on a classic Markov model with seven disease states modeling the impact of the new drugs based on response-guided therapy and efficacy. Drug acquisition cost, treatment management and annual health care cost were determined and the potential budget impact was assessed. Several “what if” analyses were performed. Model B is a dynamic, individual-based, stochastic model providing a powerful tool to perform sensitivity analysis on uncertain and disputed parameters. All input variables (incidence, prevalence, genotype distribution, cost, drug efficacy) were derived from a systematic literature review and database review and analysis. RESULTS: Parameters of interest with varying treatment rates and the time and cost to potential elimination of hepatitis C were modeled. Assuming all patients currently infected with hepatitis C would be treated from 2012 onwards, with efficacies (SVR) ranging between 70% and 80%, and assuming constant infection rates resulted in elimination of hepatitis C by the year 2030 in model A. In model B, in which individual-based host factors were taken into account, elimination was not achieved in the same time period. Different “what if” scenarios for non-responders, variations in baseline host factors, potential relapses and development of resistance were modeled more reliably with the individual-based model. CONCLUSIONS: Modeling “what if” scenarios on the basis of expected drug efficacy utilizing a dynamic, individual-based stochastic model results in a more comprehensive tool to estimate the distribution of expected future burden of HCV.