

women with EAPP. A recently cost-minimization (CM) model developed for EAPP provided the estimates of average treatment cost in Brazil based on local guidelines. This CM model compared different treatment pathways for women with EAPP and used a 50% improvement in pelvic pain as a definition of a treatment response. A patient flow was developed based on epidemiological and demographical data. Based on market uptake assumptions, results from the CM model and the patient flow, the BIM estimated the incremental budget impact after adopting dienogest. The model assumed that during the first year, 6.76% of EAPP patients receive dienogest in detriment of GnRH_a. After five years, it was assumed that dienogest would capture 30% of the GnRH_a market in EAPP. **RESULTS:** Based on the patient flow developed, approximately 0.52% of the population were estimated to be diagnosed with EAPP and receiving treatment with GnRH_a. In the year after introduction of dienogest, the overall budget used to treat EAPP was estimated to decrease by up to 2.98% with the budget saving estimated to increase to around 12.98% by Year 5. **CONCLUSIONS:** This analysis portends that the budgetary impact of adding dienogest to the public health care system in Brazil, in detriment of the GnRH_a, result in a budgetary cost saving alternative.

PIH10

HOW MUCH DOES BENIGN PROSTATIC HYPERPLASIA COST? A BUDGET IMPACT ANALYSIS ON ITALIAN PATIENTS TREATED WITH 5- α -REDUCTASE INHIBITORS

Povero M¹, Pitrelli A², Pradelli L¹

¹AdRes HE&OR, Turin, Italy, ²GlaxoSmithKline, Verona, Italy

OBJECTIVES: Second-line pharmacological therapy for benign prostatic hyperplasia (BPH) includes 5 α -reductase inhibitors (5ARIs, dutasteride and finasteride). Aim of this study was the evaluation of the budget impact related to the variation in dutasteride and finasteride prescribing trends. **METHODS:** Target population is the number of Italian BPH-patients, age \geq 40 years, treated with dutasteride or finasteride. The BPH-patients management was modeled on a dynamic cohort for 4-years. Epidemiological input data were elaborated from an observational study on pharmaceutical prescription data of Italian BPH-patients; hospitalization rates were taken from a cohort study investigating BPH-related surgical and not surgical hospitalizations. Costs were calculated as average of Italian DRGs weighted for BPH-related procedure frequency. Current Italian prescription shares of dutasteride and finasteride were compared with a 20% shift of prescriptions from dutasteride to finasteride (Scenario A) and a 20% shift of prescription from finasteride to dutasteride (Scenario B). **RESULTS:** According to current prescribing trends, 372,078 hospitalizations for BPH are expected in 4 years. Mean annual cost for BPH-patients management results in 355 million €. Hospitalization cost is the main driver (228 million €/year) while pharmacological therapy accounts for 35% of the total cost (126 million Euro/year). Scenario A: additional 11,485 hospitalizations related with BPH occur in 4 years; these lead to an increase in NHS cost only slightly offset by the savings in drugs acquisition cost: -0,08% savings on NHS budget (-0,28 million €/year) Scenario B: the cost of drugs increases of 5% (+6 million €/year) and prevents 9,920 hospitalizations in 4 years; the net budget impact of scenario B is +0,08% increase in cost (+0,27 million €/year). **CONCLUSIONS:** The shift of prescription from dutasteride to finasteride leads to modest savings on NHS Budget while the shift from finasteride to dutasteride offsets the majority of increase in drug budget improving the outcome in patients.

PIH12

COSTS OF ALTERNATIVE METHODS OF CHILD DELIVERY IN SERBIA

Odalovic M¹, Latic D¹, Tadic I², Tasic L², Petrova G³

¹University of Belgrade Faculty of Pharmacy, Belgrade, Serbia and Montenegro, ²University of Belgrade - Faculty of Pharmacy, Belgrade, Serbia and Montenegro, ³Medical University of Sofia, Sofia, Bulgaria

OBJECTIVES: Different types of labour need different resources. Therefore, different costs could be expected. Objectives of this study were to determine if significant differences in costs of different type of labour and methods of delivery exist and to determine factors related to estimated costs. The costs of spontaneous labour with vaginal delivery (SVD), induced labour with vaginal delivery (IVD), and planned C-section (CS) without labour were estimated. **METHODS:** Retrospective, population-based study was conducted for the period January - December, 2010. Health Insurance Fund of Republic of Serbia (HIFRS) database was used as a data source. Direct medical costs of mother/newborn pair were estimated. Costs were observed from the perspective of HIFRS and expressed in European Monetary Unit (EUR). **RESULTS:** A total of 99 women were selected for the study sample; average age was 30.55 \pm 5.42 years. The majority of women (46.5%) had SVD, 28.3% had IVD and 25.2% had CS. Women with CS were longer hospitalized compared to women with SVD and IVD (8.52 \pm 4.74 vs. 4.59 \pm 2.89 and 5.04 \pm 3.01 days, respectively, $p < 0.05$). Newborns after CS were longer hospitalized compared to newborns after SVD and IVD (5.76 \pm 2.20 vs. 4.0 \pm 2.07 ($p < 0.05$) and 5.14 \pm 3.39 ($p > 0.05$)). Majority of women (88.0%) and children (80.0%) after CS were hospitalized at semi-intensive and/or intensive care unites. The average costs of delivery, regardless of the method, were 417.02 \pm 284.14 EUR. The costs of C-section were higher compare to SVD (640.18 \pm 240.04 vs. 243.27 \pm 131.70 EUR, $p < 0.05$) and IVD (640.18 \pm 240.04 vs. 497.10 \pm 327.91 EUR, $p > 0.05$). **CONCLUSIONS:** The highest costs of labour in Serbia were costs of planned CS. Longer maternal/newborns hospital stay and more frequent hospitalization at semi-intensive and/or intensive care unites after CS were leading factors of estimated high costs. Considering high costs of CS, it is necessary to review such clinical practice for the purpose of optimizing the use of resources.

PIH13

COST BURDEN OF ROTAVIRUS GASTRO-ENTERITIS REQUIRING HOSPITALIZATIONS IN THE CZECH REPUBLIC AND IN SLOVAKIA

Vitova V¹, Mullerova J², Tichopad A¹, Dolezel J³, Hlavinkova L⁴, Pazdiora P⁵, Stefkovicova M⁶

¹CEOR s.r.o., Prague, Czech Republic, ²CEOR Slovakia, Bratislava, Slovak Republic, ³GlaxoSmithKline, Prague, Czech Republic, ⁴GlaxoSmithKline Slovakia, Bratislava, Slovak Republic, ⁵Charles University Hospital Pilsen, Plzen, Czech Republic, ⁶Regional Authority of Public Health, Trencin, Slovak Republic

OBJECTIVES: Rotavirus (RV) is the most frequent cause of severe gastroenteritis frequently requiring hospitalization. RV is responsible for > 1/2 of all hospital stays for acute gastroenteritis. The objective was to estimate the burden of community acquired rotavirus gastro-enteritis requiring hospitalization (CRVGE) in children \leq 5 years old in Czech Republic (CR) and Slovakia (SK). **METHODS:** Multi-center, retrospective patient chart review was conducted in both pediatric and infection disease settings in CR (n=109) and SK (n=115). Resource use analysis including length of hospital stay and tests performed were evaluated. Patients requiring rehydration, complications and comorbidities were considered. Direct cost from payer's perspective were retrieved from official DRG lists (CR) and fixed hospitalization cost rates per case (SK). Micro-costing was done in parallel based on the resource use data. **RESULTS:** Mean length of hospital stay in CR and SK was 3.9 (SD 1.9) and 4.1 days (SD 1.7) respectively. Prevalent diagnostic tests used were latex agglutination 44.0% (CR) and immunochromatography 92% (SK). Rehydration was required in 84.4% (CR) and 97% (SK) of cases. Comorbidities were reported in 24.8% (CR) and 27% (SK); complications in 10.1% (CR) and 7.8% (SK). The national list-based reimbursement per hospitalized CRVGE is € 370-645 (CR) and € 561 (SK). The calculated average total costs, including treatment prior to, and after admission, were € 462 (CR) and € 583 (SK). The major cost item was the hospital stay with €391 (CR) and €540 (SK). Costs for tests and drugs during hospitalization were €30 (CR) and €25 (SK). The costs of pre and post-hospitalization care were €20 (CR) and €13 (SK). **CONCLUSIONS:** Although the length of hospitalization in both countries is similar costs seem to be substantially lower in CR, possibly as a result of recently launched DRG system. Common complications and comorbidities account for 30% of average hospital costs.

PIH14

USE OF ANTENATAL CORTICOSTEROIDS LOWERS HOSPITALIZATION COSTS RELATED TO PREMATURITY

Meneguel J¹, Fonseca M², Fonseca E³, Almeida F¹, Grinsburg R¹

¹UNIFESP, São Paulo, Brazil, ²Federal University of São Paulo / Axia.Bio Consulting, São Paulo, Brazil, ³Federal University of São Paulo, São Paulo, Brazil

OBJECTIVES: According to WHO the use of antenatal corticosteroids (CEA) in pregnant women at risk of preterm birth <34 weeks can prevent thousands of preterm neonates (PN) deaths. The impact of the use of CEA in hospital costs in developing countries is not known. Our objective was to compare morbidity and hospital costs of PN whose mothers received or not CEA. **METHODS:** Analysis of PN medical records with gestational age 26-32 weeks born from Jan/2006-Dez/2009 in a tertiary, public and university hospital. We excluded infants with malformations. Maternal characteristics, hospital neonatal morbidity, use and doses of CEA and all used resources (tests, medications and procedures) were collected. Costs were estimated in Brazilian Reals, from the hospital perspective. **RESULTS:** Of 211 PN, 170 received at least one dose of CEA to 6 hours before delivery (G1) and 41 did not (G2). The groups had similar characteristics but G1 had more male infants ($p < 0.05$) and cesarean sections ($p < 0.00$). Morbidity: G2 needed more advanced resuscitation (16.5% vs 34%, $p = 0.01$), experienced more intraventricular hemorrhage III / IV (7.6% vs. 22%, $p < 0.00$) and retinopathy of prematurity (12.4% vs. 24.4%, $p = 0.05$). Resource use: G1 consumed less mechanical ventilation days (5.3 vs 10.6, $p = 0.04$) and oxygen days (10.7 vs 17, $p = 0.02$); the number of NICU and Intermediate Care Nursery days were respectively (19.6 vs 27.5, $p = 0.07$) and (24 vs 29.5 days, $p = 0.14$); there was no difference concerning use of CPAP ($p = 0.07$) and surfactant ($p = 0.06$). The average cost of hospitalization per patient was BRL 18,409 in G1 and BRL 24,090 in G2 ($p = 0.03$). **CONCLUSIONS:** The CEA is a simple measure, which helps to reduce PN morbidity and utilization of health care resources, reducing hospital costs.

PIH15

EXAMINING THE BURDEN OF ILLNESS OF THE UNITED STATES VETERAN PATIENTS DIAGNOSED WITH ALZHEIMER'S DISEASE

Wang L¹, Xie L², Du J², Li L¹, Baser O³

¹STATinMED Research, Dallas, TX, USA, ²STATinMED Research, Ann Arbor, MI, USA,

³STATinMED Research/The University of Michigan, Ann Arbor, MI, USA

OBJECTIVES: To examine the burden of illness of patients diagnosed with Alzheimer's disease (AD) in the U.S. veteran population. **METHODS:** A retrospective database analysis was performed using the Veterans Health Administration (VHA) Medical SAS datasets from October 1, 2008 through September 30, 2012. Patients diagnosed with AD were identified using International Classification of Disease 9th Revision Clinical Modification (ICD-9-CM) diagnosis code 331.0. The first diagnosis date was designated as the index date. A comparator group was created as well by identifying patients without an AD diagnosis but with the same age, region, gender, index year, and matching Charlson Comorbidity Index (CCI). The index date for the comparator group was randomly chosen to reduce the selection bias. A 1-year continuous health plan enrollment was required before and after the index date for both groups. One-to-one propensity score matching was used to compare the health care costs and utilizations during the follow-up period between the disease and comparator groups. **RESULTS:** A total of 68,856 patients were included in the AD and comparison cohorts. After 1:1 matching, a total of 24,542 of patients were matched from each group, and the baseline characteristics were proportionate. The AD cohort had higher percentages of inpatient (18.46% vs. 2.06%, $p < 0.01$), emergency room (15.80% vs. 4.31%, $p < 0.01$), physician office (98.17% vs. 58.18%, $p < 0.01$), outpatient (98.30% vs. 58.92, $p < 0.01$), and pharmacy visits (84.89% vs. 61.78%, $p < 0.01$). AD patients also incurred higher inpatient (\$7,416 vs. \$636, $p < 0.01$), emergency room (\$150 vs. \$41, $p < 0.01$), physician office (\$2,752 vs. \$1,155, $p < 0.01$), outpatient visits (\$3,086 vs. \$1,300) and pharmacy costs (\$774 vs. \$350, $p < 0.01$) compared to patients without AD. **CONCLUSIONS:** In this study, AD was associated with higher health care resource utilization and a significantly higher economic burden.

PIH17

A COST OF A CHILDBIRTH WITH IN VITRO FERTILIZATION IN POLAND

Góra K., Hermanowski T, Wrona W

Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland