

likelihood of suicide, absenteeism, and the hospitalisation rate. The reimbursement of Seroquel XR® could generate annual budget savings of PLN 8.6 million (2150 thousands Euro), if Seroquel XR® were used in 31% of quetiapine-treated patients with schizophrenia. The maximum savings resulting from the reimbursement of quetiapine prolonged release tablets (Seroquel XR®) could amount to PLN 27.6 million (6900 thousands Euro) per year. **CONCLUSIONS:** The reimbursement of Seroquel XR® with the reimbursement limit at the level of the reimbursement limit for normal tablets of quetiapine is profitable for the state budget – it will not only bring budgetary savings, but also allow patients to return to active life, which is crucial in the case of schizophrenia.

#### PMH18

##### THE ECONOMIC AND SOCIAL CONSEQUENCES OF SEROQUEL XR® (QUETIAPINE PROLONGED RELEASE TABLETS) REIMBURSEMENT IN BIPOLAR DISORDER TREATMENT FOR PATIENTS CURRENTLY TREATED WITH SEROQUEL (QUETIAPINE IMMEDIATE RELEASE TABLETS) IN POLAND: ANALYSIS OF THE IMPACT ON THE HEALTH CARE SYSTEM

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**OBJECTIVES:** To estimate the economic consequences of replacing Seroquel (the normal tablets of quetiapine) with Seroquel XR® in the treatment of bipolar disorder in Poland. **METHODS:** Based on the established model of the economic consequences of bipolar disorder treatment, we calculated the cost of treating bipolar disorder with quetiapine in Poland. Expenditures for the purchase of medicines, hospital costs and the costs of lost productivity were highlighted. The analysis was performed from a societal perspective, taking into account the Payer's perspective, in three-year time horizon. **RESULTS:** The use of Seroquel XR® will decrease hospitalisation rate and length of hospitalisation, what will reduce direct costs of bipolar disorder treatment by PLN 645 thousands (161 thousands Euro). The use of Seroquel XR® will increase the population of patients who comply with the recommended treatment, which will reduce the likelihood of suicide, absenteeism, and the disability pension. The budget savings related to indirect costs reduction are estimated at PLN 15,3 million (3825 thousands Euro). Moreover, the reimbursement of Seroquel XR® would decrease the social transfers by PLN 157,6 thousands (39,4 thousands Euro) in comparison to current scenario. **CONCLUSIONS:** The reimbursement of Seroquel XR® with the reimbursement limit at the level of the reimbursement limit for normal tablets of quetiapine is profitable for the state budget – it will not only bring budgetary savings, but also allow patients to return to active life, which is crucial in the case of bipolar disorder.

#### PMH19

##### COST OF RELAPSE IN SCHIZOPHRENIA IN EUROPE: THE CONSTATRE STUDY

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**OBJECTIVES:** Schizophrenia is a debilitating chronic psychiatric illness with a considerable impact on the patient and the patient's environment, in terms of morbidity, mortality, human suffering and societal costs. Currently, little is known of the exact cost of relapse in schizophrenia. Our objective is to estimate cost of relapse based on resource utilization data collected alongside a clinical trial. **METHODS:** "Constatre" is a multicenter, open-label, randomized, active-control, long-term study comparing risperidone long acting injectable treatment with oral quetiapine, conducted from October 2004 to November 2007 at 124 sites in 25 countries (ClinicalTrials.gov identifier: NCT00216476). Information regarding Medical Resource Utilization (MRU) during the three months following relapse was collected for a subset of patients. To estimate the associated relapse related costs, average purchase parity adjusted country resource unit costs (2010 Euro) were applied. **RESULTS:** Detailed MRU data were available for 63 patients spread across Europe. The overall mean MRU cost per patient in the three months following the relapse was €7592, of which 79% was related to psychiatric hospitalisation. 68% of the relapsed patients were hospitalized, for on average 38.8 days, representing a total cost of €9117 (range €277 - €20,868) per hospitalised patient. 5% of the patients were in day-clinic, on average for 41.3 days, representing a cost of €5829 per patient. The majority (60%) of the relapsed patients had outpatient visits, representing a mean cost per patient of €1834, mainly to psychiatrists (57% of patients, average = 14.5 visits) and nurses (10% of patients, average = 105.9 visits). **CONCLUSIONS:** Costs related to relapse of schizophrenic patients are considerable, and mainly driven by psychiatric hospitalisation. Antipsychotic treatment that prevents or reduces relapse and psychiatric hospitalisation can have a major impact on the total schizophrenia related treatment cost.

#### PMH20

##### HEALTH CARE COST COMPARISONS BETWEEN ALCOHOL OR OPIOID-DEPENDENT PATIENTS WHO WERE TREATED WITH MEDICATION AND THOSE WHO WERE NOT

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**OBJECTIVES:** To compare the differences in health care costs between alcohol or opioid-dependent patients who were treated with pharmacological ('Any Medication') and non-pharmacological substances ('No Medication'). **METHODS:** A retrospective analysis was conducted using a large U.S. health plan claims database from 2005 to 2009. Continuously eligible patients with at least one claim of alcohol/opioid dependence during the identification period, and an alcohol/opioid use disorder diagnosis during the baseline period were included. Propensity score matching (PSM) was applied to compare the risk-adjusted outcomes between the 'Any

Medication' and 'No Medication' cohorts. Baseline differences in age, gender, religion, comorbidity scores, socioeconomic status, baseline health care utilization and costs were controlled. **RESULTS:** During the pre-index period, for both alcohol and opioid dependent patients, those in the 'Any Medication' cohort had more distinct psychiatric diagnoses, and were more likely to have Elixhauser Index Scores of higher than 3, when compared to patients from the 'No Medication' cohort. After adjusting baseline patient and clinical characteristics, 10,376 alcohol-dependent patients were matched from each cohort. Patients who were treated without pharmacological medication had more rehabilitation time, a higher detoxification cost burden (\$1,350,000 per 1000 patients), and higher total health care costs, compared to patients who were treated with pharmacological medication. Similarly, there were 6,658 patients from each cohort matched for opioid-dependent patients. Patients in the 'No Medication' cohort incurred higher total health care costs than patients in the 'Any Medication' cohort (\$14,353,000 vs. \$10,192,000 per 1000 patients) during the post-index period. **CONCLUSIONS:** After controlling for confounders such as demographic factors, comorbid conditions and baseline health care utilization, we showed that pharmacological medication treatments were associated with lower health care costs than non-pharmacological substance treatment for both alcohol and opioid-dependent patients.

#### PMH21

##### ECONOMIC COST OF ALCOHOL AND DRUG ABUSE IN WASHINGTON STATE, USA

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**OBJECTIVES:** Substance abuse (SA) represents a significant public health problem that impacts tens of millions of persons in the US and imposes over \$400 billion in annual economic costs on a national basis in the form of lost productivity, premature death, criminal activity and use of medical care. The objective of this study was to estimate the economic costs associated with drug and alcohol abuse for Washington State in 2005. **METHODS:** We used standard cost of illness (COI) methods, relying on the prevalence approach, to estimate the costs of SA in six areas, including mortality, morbidity, treatment costs, crime, and health care. We obtained data for the analysis from various sources, including the Washington State Health Department, the National Survey on Drug Use and Health, the State Department of Corrections, and the Washington Association of County Sheriffs, and the Washington State Department of Transportation. **RESULTS:** We estimated costs of SA for 2005 for Washington State at \$5.21 billion, \$832 per non-institutionalized person in the state. Alcohol abuse accounted for 56% of total costs. The per-capita, inflation-adjusted costs increased by 47% from 1996. Categories accounting for the greatest costs were mortality (\$2.03 billion), crime (\$1.09 billion), morbidity (\$1.03 billion) and health care (\$791 million). There were 3,224 deaths (7% of all deaths), 89,000 years of productive life lost, and 29,000 hospital discharges in 2005 in Washington associated with SA. **CONCLUSIONS:** SA imposes significant costs on society. Its economic costs far outweigh the resources expended to treat persons with SA. For every \$1 dollar the state collected in tax revenue for treatment from alcohol sales in 2005, \$20 in economic loss was incurred from alcohol abuse. Renewed attention needs to be directed at finding more effective ways to reduce the economic and human loss arising from SA.

#### PMH22

##### ECONOMIC BURDEN OF ATTENTION DEFICIT HYPERACTIVITY DISORDER IN CHILDREN AND ADOLESCENTS IN EUROPE

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**OBJECTIVES:** This comprehensive review was conducted to report existing evidence from published studies evaluating the economic burden of attention deficit hyperactivity disorder (ADHD) in children and adolescents in Europe. **METHODS:** A systematic search of electronic literature databases (EMBASE and MEDLINE), was conducted from January 2001 to June 2011 to identify economic studies on ADHD in children and adolescents in Europe. All economic studies in English language, regardless of design and intervention were included. Eligibility of trials was assessed by two reviewers with any discrepancy reconciled by a third, independent reviewer. **RESULTS:** A total of 591 citations were retrieved out of which eight met pre-defined inclusion criteria. Five studies were cost-analyses while three were cost-effectiveness analyses. In Germany, the total direct costs for ADHD were €158 million in 2002 which increased to €287 million in 2006 with inpatient treatment costs comprising approximately 40% of the total direct costs in 2006 (Wehmeier 2009). Other contributors to total direct costs included hospitalisations, special health-care services, comorbidities, and physician visits (Ridder 2006). The total projected costs of ADHD in Germany during 2012 are estimated to be €311 million (Schlander 2007). The mean annual direct medical costs of ADHD patients with psychiatric comorbidities were €5908 compared to €974 for ADHD alone in the The Netherlands (Roijen 2007). The cost-effectiveness studies retrieved primarily focused on atomoxetine (ATX) and methylphenidate (MPH). ATX was found to be more cost-effective than MPH in the UK (ICER of £15 224 per QALY gained) (Cottrell 2008) as well as in Spain (ICER of €34 308 per QALY gained) (Hong 2009). **CONCLUSIONS:** ADHD is associated with substantial fiscal burden in Europe. Since 2002, a trend of increase in direct costs has been observed which may be due to increasing demand for healthcare services, and presence of comorbidities.

#### PMH23

##### THE ECONOMIC BURDEN OF MENTAL ILL HEALTH IN THE WORKPLACE: A COSTING APPROACH FOR BRAZILIAN EMPLOYERS

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