

of adverse events (NAE); extrapyramidal symptoms (EPS); weight gain (WG); and sexual dysfunction (SD). The transition probabilities amongst health states were estimated from two different meta-analysis of clinical trials and from a retrospective Spanish study. The health care costs associated to each health state were obtained from a published Spanish study. It was used the minimum acquisition cost per mg. of the mean daily dose, for each AA, which is regarded as a relevant efficiency criterion in Hospital Pharmacy Departments. The time horizon applied in the analysis was 12 months. a probabilistic sensitivity analysis was performed for all the variables involved in the analysis via Monte Carlo simulations. All costs were inflated to 2009 costs using Spanish Health System pay and prices index. **RESULTS:** In comparison with OLA, the treatment with ARI generates annual average cost savings per patient of €-688.70 ± 21.69 (CI 95% -614.52; -729.18). In the most unfavourable scenario for ARI, that in which we assumed that ARI may have a similar rate of sexual dysfunction than that of quetiapine (i.e. the lowest rate amongst AA) the costs savings per patient would be €-270.94 ± 17.11 (CI 95% -237.20; -303.48). **CONCLUSIONS:** The results of this analysis show that patients treated with aripiprazole demonstrate lower adverse events costs in comparison to olanzapine. This difference may generate significant cost savings to the Spanish health system in the treatment of patients affected by bipolar disorders. The robustness of the results was tested via a probabilistic sensitivity analysis.

## PMH15

#### REAL-WORLD TREATMENT PATTERNS AND HEALTH CARE RESOURCE UTILIZATION IN GENERALISED ANXIETY DISORDER (GAD): A RETROSPECTIVE UNITED STATES DATABASE ANALYSIS

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**OBJECTIVES:** Real-world treatment patterns and health care resource utilization for patients with GAD in the United States are not fully defined. **METHODS:** Data from the 2003–2007 Thomson Reuters MarketScan<sup>®</sup> Commercial Claims and Encounters and Medicare Supplemental and Coordination of Benefits databases were utilised for analysis. For the current analysis, participants with a diagnosis of GAD (ICD-9 CM 300.02) between January 1, 2004 and December 31, 2006 were included. The sample was divided into the following five subgroups: patients receiving non-pharmacological treatment, first-line therapy only, first-line + augmentation within 90 days of index prescription, first-line + switch within 90 days of index prescription and second-line therapy only. Additionally, GAD patients were compared with healthy controls without GAD or other mental health conditions. **RESULTS:** In total, 23,553 GAD patients (mean age range: 41.6–48.1 years; 56.1–68.6% female across the five groups) were included (non-pharmacological, n = 7055; first-line only, n = 6538; first-line + augmentation, n = 903; first-line + switch, n = 1953; second-line only, n = 7104). Paroxetine was the most commonly used first-line treatment at index (first-line cohorts: 48%, 42%, 41%, respectively). In the second-line only cohort, a benzodiazepine (37%) or second-line SSRI/SNRI (27%) were the most commonly used agents at index. Benzodiazepines were the most commonly prescribed agents for augmentation of, or switching from, first-line treatments (augmentation 52%, switch 44%). Overall, GAD patients had higher health care utilization and significantly higher total health care costs versus healthy controls (mean per patient: \$8058 vs. \$2938,  $P < 0.0001$ ). On average, GAD patients incurred an additional \$425/month in direct health care costs in the 1-year post-index period versus healthy controls. **CONCLUSIONS:** The real-world management of GAD is both complex and costly. Paroxetine was the most-widely used first-line treatment for GAD. Benzodiazepines were the most widely used agents for augmentation of, or switching from, first-line treatments, and for second-line therapy. Total health care costs were 2.7 times higher for GAD patients compared with healthy controls.

## PMH16

#### THE ECONOMIC AND HUMANISTIC BURDEN OF ILLNESS IN GENERALISED ANXIETY DISORDER (GAD): A RETROSPECTIVE DATABASE ANALYSIS IN EUROPE

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**OBJECTIVES:** There is a paucity of published evidence estimating the economic and humanistic burden of illness in GAD. We report results of a retrospective database analysis examining the burden of GAD in Europe. **METHODS:** Data were derived from the European (France, Germany, UK, Italy, Spain) National Health and Wellness Survey database for 2008. The database captures information from adults (≥18 years) and is representative of the adult population in each country. Respondents reporting a diagnosis of GAD were propensity-score matched 1:1 to non-GAD controls on country, age, gender and employment status. Data were extracted on GAD medication use, resource utilization (emergency room visits, hospitalizations and health care provider visits) and work productivity (using the Work Productivity and Activity Impairment questionnaire) to calculate direct and indirect costs. Health-related quality of life (HRQoL) was derived using SF-12 mental and physical summary scores. Utilities were derived from SF-6D preference scores and used to calculate cost per quality-adjusted life-year (QALY). **RESULTS:** Of 53,524 respondents, 3,669 were assigned to the GAD group. GAD respondents accrued considerably higher direct (medication and health care resources) plus indirect (work productivity loss) costs (per person/

year) versus controls across pooled European countries (€5,308.80 vs. €2,441.10;  $P < 0.0001$ ) and for each country (France €6,083.70 vs. €2,896.30; Germany €12,797.00 vs. €4,876.10; UK €4,021.70 vs. €2,011.20; Italy €3,514.50 vs. €1,869.60; Spain €5,051.70 vs. €1,954.80;  $P < 0.0001$  vs. controls within each country). Direct costs were driven by hospitalizations and psychologist/psychiatrist visits. Total costs increased with GAD severity from €4,094.00 for respondents with mild GAD to €7,753.10 for those with severe GAD. HRQoL was significantly poorer for GAD versus non-GAD respondents ( $P < 0.0001$ ). Costs/QALY increased with GAD severity from €6,795 for mild GAD to €15,286 for severe GAD. **CONCLUSIONS:** The economic and humanistic burden of illness of GAD across Europe is considerable and increases with the severity of disease.

## PMH17

#### COST OF ATTENTION DEFICIT/HYPERACTIVITY DISORDER IN GERMANY

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**OBJECTIVES:** Data concerning costs of patients with Attention deficit/hyperactivity disorder (ADHD) are scarce in Germany. Aim of this claims data analysis was to examine the costs of ADHD from the perspective of the statutory health insurance. **METHODS:** Nation-wide claims data of a major statutory health insurance fund was used to evaluate the overall and ADHD-related costs of ADHD-patients in 2008. All costs for outpatient care, inpatient care, pharmaceuticals, rehabilitation, occupational therapy as well as devices and aids, and sick leave payments were analyzed. To calculate ADHD-related costs the overall health care costs of the identified ADHD-patients were compared to an age and gender matched control group. **RESULTS:** Based on the used identification algorithm 30,264 ADHD-patients were identified. Mean overall costs of €3802 in the year 2008 were incurred from the health insurance perspective. €1704 (45%) were incurred by occupational therapy as well as devices and aids, and €779 (20%) were due to inpatient care; €751 (20%) resulted from outpatient care. Costs for pharmaceuticals were €483 (13%) and for rehabilitation were €35 (≤1%). Costs for sick leave payments came to €50 (1%). The matched control group contains 404,565 patients. Compared to this control group the incremental mean costs of ADHD-patients were EUR 2,744. EUR 1,214 of these resulted from occupational therapy as well as devices and aids, €586 from inpatient care and €517 from outpatient care. Mean additional costs for pharmaceuticals in the ADHD-group were €367. **CONCLUSIONS:** The major cost driver in ADHD from a health insurance perspective in Germany is occupational therapy as well as devices and aids.

## PMH18

#### THE COSTS OF DEPRESSION IN SWITZERLAND

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**OBJECTIVES:** To investigate the burden of depression in the Swiss population. The costs for the management of depressive patients will be analyzed for different severity classes of disease, based on the Hamilton depression rating scale, over a period of 12 months following diagnosis. **METHODS:** A prospective, multicentre, non-interventional study in psychiatrist practices was carried out. Patients who have been diagnosed with depression in the last three years were included. Patient's characteristics and resource utilization in the first twelve months after diagnosis were collected. Costs analysis, subdivided in direct and indirect costs, was performed for three depression classes (mild, moderate, severe), according to the Hamilton depression score (HAM-D-17). Costs were also extrapolated to the national level. **RESULTS:** A total of 556 patients were included. Hospitalization and hospitalization days were directly correlated with disease severity ( $P < 0.001$ ). Medical resource utilization linked to depression and antidepressant treatments were also correlated to disease status. Severe patients reported a significantly higher number of workdays lost and were significantly more often in disability insurance. Total direct costs per person, mainly due to hospitalization costs, were CHF 4,823 for mild, CHF 13,251 for moderate, and CHF 22,138 for severe depressions. Indirect costs, mainly due to workdays lost, resulted in CHF 11,892 for mild, CHF 17,267 for moderate, and CHF 22,710 for severe depressions. Extrapolation at national level resulted in a total burden of about CHF 11 billion. **CONCLUSIONS:** The burden of depression in Switzerland was estimated to be around CHF 11 billion. Costs of depression were directly related to disease severity. However, since many depressions remain unreported and since this analysis only included individuals between 18 and 65 years of age, it is reasonable to suppose that the total burden of depression may be even greater.

## PMH19

#### BURDEN OF ILLNESS OF TREATMENT RESISTANT DEPRESSION

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**OBJECTIVES:** Major depressive disorder (MDD) is a leading cause of disability, morbidity, and mortality worldwide. The lifetime prevalence in the US is 17%. Treatment resistant depression (TRD) is generally defined as failure to achieve remissions