OBJECTIVES: Major depression disorder affects approximately 10-15% of the popu-
lation and is one of the leading causes of disability in young adults. A large proportion of the burden can be
attributed to treatment-resistant depression (TRD). To understand the prevalence and
disease burden of TRD in Western European countries, the US and Canada, a cross-country
comparison using performance-based databases and CRD database were used to retrieve
TRD publications in English language from January 2003-October 2013. In total, 6306 abstracts were identified. Predefined
selection criteria regarding study design, patient population (age ≥12 years, US, Canada, Germany, Italy, France, Spain or UK; TRD defined as one treatment failure
and high symptom severity e.g. MARS ≥31, or an inadequate response to ≥ two
antidepressants) and outcomes of interest were applied. RESULTS: Only seven studies
included prevalence and/or disease burden data. Five studies provided previ-
ous estimates which adhered to the strict TRD definition used for this review.
Study design and definition of the patient population were critical in determining the
prevalence rates, with the lowest rates in US databases (11-15%), higher rates in commercial health insurance databases (29-31%) and the
highest rates in a European multicenter study (51-56%). The database studies mainly
included employed patients thereby likely underestimating the prevalence, whereas the
remaining studies likely overestimated the prevalence due to a less stringent TRD definition.
Inconsistent data were reported regarding treatment outcomes, comor-
bidity, hospitalization and work productivity. There was no information on other
outcomes such as health-related quality of life or functioning. CONCLUSIONS: No consistent data were found in the literature from January 2003-October 2013 regarding the
epidemiology and disease burden of TRD. To determine the prevalence and disease burden for TRD, further studies are needed.

PMH15 PREVALENCE OF METABOLIC SYMPTOMS IN PATIENTS WITH SCHIZOPHRENIA ACCORDING TO THE PRESENCE OR ABSENCE OF NEGATIVE SYMPTOMS Sircas-Mainer A, Ruiz-Beato E, Maurino J, Navarro-Artieda R 2
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Hospital Clínic, Spain, 3Tecnalia, San Sebastián, Spain, 4Pharmacy, Pharmacy, Spain.
OBJECTIVES: The aim of this study was to estimate the prevalence of metabolic syn-
drome (MS) in patients with schizophrenia according to the presence or absence of
negative symptoms. METHODS: A retrospective, cohort study was conducted using
electronic medical records from the health provider BSA (Badalona, Spain). All adult
patients with schizophrenia from January 2003-October 2013. In total, 6306 abstracts were identified. Predefined
selection criteria regarding study design, patient population (age ≥12 years, US, Canada, Germany, Italy, France, Spain or UK; TRD defined as one treatment failure
and high symptom severity e.g. MARS ≥31, or an inadequate response to ≥ two
antidepressants) and outcomes of interest were applied. RESULTS: Only seven studies
included prevalence and/or disease burden data. Five studies provided previ-
ous estimates which adhered to the strict TRD definition used for this review.
Study design and definition of the patient population were critical in determining the
prevalence rates, with the lowest rates in US databases (11-15%), higher rates in commercial health insurance databases (29-31%) and the
highest rates in a European multicenter study (51-56%). The database studies mainly
included employed patients thereby likely underestimating the prevalence, whereas the
remaining studies likely overestimated the prevalence due to a less stringent TRD definition.
Inconsistent data were reported regarding treatment outcomes, comor-
bidity, hospitalization and work productivity. There was no information on other
outcomes such as health-related quality of life or functioning. CONCLUSIONS: No consistent data were found in the literature from January 2003-October 2013 regarding the
epidemiology and disease burden of TRD. To determine the prevalence and disease burden for TRD, further studies are needed.

PMH16 THE POTENTIAL BENEFITS OF LONG-ACTING ATYPICAL ANTIPSYCHOTIC THERAPY IN THE PREVENTION OF RELAPSE IN SCHIZOPHRENIA Clay E, Tyszko K, Pezzullo L, Pititto L, Guarniero F, Antonio M
1Creativ-Ceutical, Paris, France, 2Zkr Outcomes Research Inc., Belgrade, Serbia and Montenegro,
3Zkr, Richmond, VA, USA, 4Pharmaceutical Care Management Associates, Inc, Tannis A
OBJECTIVES: Buprenorphine/naloxone (BUP/NAL) combination is a well known
treatment for opioid dependence. As a chronic relapsing disorder, some patients
alternate between periods of on treatment and off treatment. The aim of this study
was to utilize resource utilization data from these trials to identify how these patients and patients treated continuously. METHODS: Statistical analyses were conducted on a Medicaid insurance claims database (TruvenHealth MarketScan® Medical Panel, 2012). Patients with at least two treatment episodes in the first year after the initial filled prescription were identified. The end of a treatment episode was defined as a period of 60 days with no filled BUP/
NAL prescriptions following the theoretical end of the last filled prescription. An
ordinary least-squares regression was used to analyze the impact of initial treat-
ment episode duration on the number of new episodes in the year following the end of the first episode. Health care resource utilization and related costs during the
period between the first two treatment episode and two years following the first
end of treatment episode were compared. RESULTS: 2,223 patients were included in the analysis. During the first year, 86% of patients had only one treatment episode, 13% had two and 1% had three. Compared to patients who remained in treatment continuously over 12 months, the multiple treatment episode group had lower medication costs ($2,877) but higher psychi-
atriac inpatient costs ($720), non-psychiatric inpatient costs ($420) and emerg-
cy room costs ($430) over 12 months. Total health care costs over 12 months were:
$16,583 vs. $15,123, p = 0.0004. CONCLUSIONS: Despite lower medication costs, total health care costs over 12 months were higher among patients with multiple treatment episodes compared to patients treated continuously.

PMH17 ANALYSIS OF ‘REVOLVING DOOR’ PATIENTS IN OPIOID DEPENDENT PATIENTS: THE IMPACT OF TREATMENT DISCONTINUATION ON RELAPSE RATES AND HEALTH CARE COSTS IN US PUBLIC HEALTH INSURANCE CLAIMS Clay E, Zhai V, Khatriwona E, Ruby J, Abakila S, Khemirri A
1Creativ-Ceutical, Paris, France, 2Zkr Outcomes Research Inc., Belgrade, Serbia and Montenegro,
3Zkr, Richmond, VA, USA, 4Pharmaceutical Care Management Associates, Inc, Tannis A
OBJECTIVES: Buprenorphine/naloxone (BUP/NAL) combination is a well known
treatment for opioid dependence. As a chronic relapsing disorder, some patients
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was to utilize resource utilization data from these trials to identify how these patients and patients treated continuously. METHODS: Statistical analyses were conducted on a Medicaid insurance claims database (TruvenHealth MarketScan® Medical Panel, 2012). Patients with at least two treatment episodes in the first year after the initial filled prescription were identified. The end of a treatment episode was defined as a period of 60 days with no filled BUP/
NAL prescriptions following the theoretical end of the last filled prescription. An
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atriac inpatient costs ($720), non-psychiatric inpatient costs ($420) and emerg-
cy room costs ($430) over 12 months. Total health care costs over 12 months were:
$16,583 vs. $15,123, p = 0.0004. CONCLUSIONS: Despite lower medication costs, total health care costs over 12 months were higher among patients with multiple treatment episodes compared to patients treated continuously.
PMH20
THE SOCIOECONOMIC COSTS OF SCHIZOPHRENIA IN SWITZERLAND
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OBJECTIVES: The objectives of this study were to estimate the prevalence of schizophrenia in Switzerland and to assess its burden on patients, caregivers and society as a whole. The primary data source was combined with a postal survey and health insurance claims data to capture all patients living in the northern part of the canton of Zurich. Total costs included direct medical and non-medical costs and lost production. All costs were calculated for the year 2012 from a societal perspective using a prevalence-based bottom-up approach. Intangible costs were expressed as quality adjusted life years (QALY) lost and were calculated from Swiss life tables, standardized mortality ratios and utility weights from the literature. Uncertainty and its sources were addressed in univariate and probabilistic sensitivity analysis.
RESULTS: The point prevalence of schizophrenia in 2012 was estimated at 0.39% of the Swiss population. The average annual cost of schizophrenia amounted to EUR 39,408 per patient and consisted of direct medical costs of EUR 9,507 per patient and a prevalence rate of EUR 4,793 (12%) and lost production of EUR 25,108 (64%). Inpatient hospital care accounted for EUR 6,242 per year or 66% of direct medical costs. The estimated reduction in life expectancy of 10.46 years and the utility decrement of 22.05 percentage points lead to intangible costs of 19.02 QALY per incident chronic case.
CONCLUSIONS: The results of this study show the high burden of schizophrenia on patients, caregivers and society as a whole. The high costs of inpatient hospital care demonstrate the importance of prevention of long-term hospitalization for schizophrenia. Programs for the reintegration of schizophrenic patients into the labor market have a high potential to reduce the costs of schizophrenia considering the high burden of lost production and the early onset of the disease.

PMH21
A MODEL TO ESTIMATE THE SOCIAL SYSTEM BURDEN OF PRESCRIPTION OPIOID ABUSE IN EUROPE
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OBJECTIVES: Prescription opioid (“RxO”) abuse has not been reported as a major public health problem in Europe so far, but a lack of reliable data hinders the assessment of this problem. This study aimed to derive estimates of the prevalence and excess costs of RxO abuse in the five largest European countries (France, Germany, Italy, Spain, and UK). METHODS: Data from the European Monitoring Centre for Drugs and Drug Addiction and the UN Office on Drugs and Crime, on the prevalence of opioid abuse, opioid share and the share of opioid abuse patients who report using non-heroin opioids, were used to estimate the prevalence of RxO abuse in the EU. The costs of RxO abuse were calculated by applying published estimates of the excess health care costs of RxO abuse to country-specific estimates on the costs of chronic pain. Sensitivity analyses varied assumptions surrounding the prevalence of opioid abuse patients in the general population and the estimates of the excess costs of RxO abuse in the EU. RESULTS: The prevalence of RxO abuse, in the general population, varied between the EU countries, ranging from 0.7 per 10,000 in Italy to 11.5 per 10,000 in Spain. In the base case scenario, the total annual health system costs of RxO abuse across all EU countries were estimated to be €323 million; results of sensitivity analyses ranged from €98 million to €730 million. These cost estimates included both direct medical costs only; indirect costs were not included. CONCLUSIONS: RxO abuse imposes a burden on EU health systems. Future research should examine trends in the prevalence and total economic burden of RxO abuse in Europe over time and assess the potential benefits of abuse deterrent formulations, which published research on efficacy and cost-effectiveness has not been associated with a significant relative reduction in rates of diagnosed opioid abuse.

PMH22
PRODUCTIVITY LOSS AND RESOURCE UTILIZATION IN INDIVIDUALS PROVIDING CARE FOR ADULTS WITH SCHIZOPHRENIA IN THE EU
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1Kentan Health, Princeton, NJ, USA, 2Kentan Health, Epsom, UK, 3European Federation of Associations of People with Mental Illness, Belgium, 4Janssen-Cilag GmbH, Neuss, Germany
OBJECTIVE: This study aimed to understand the impact of providing care for adults with schizophrenia on productivity, daily activities and resource utilization in the EU. METHODS: Data from the 2010-2011 and 2013 EU (France, Germany, Italy, Spain, UK; “EU5”) and the 2012 US (New York, NY; “US”) surveys were analyzed. The data from these surveys were pooled to increase sample size and allow comparison across countries. RESULTS: A total of 8484 patients were included with mean (±SD) age of 57.15 (±15.34) years, 58.8% (±28.3%) were female and 41.2% (±28.3%) were married. Of these patients, 12.6% were treated with antidepressant medications, including 60.53% of patients with SSRIs, followed by NaSSA (8.96%) and SNRIs (8.26%). Concomitant medications were prescribed in 76.78% of patients. Only 0.43% of patients experienced ≥1 medical-related hospitalizations during the 1-year follow up and the average annual number of hospitalization was 1.22 (±0.64) for those hospitalized patients. The length of stay was 3.38 (±3.0) days per hospitalization and 1.88 (±1.0) days per patient-year. All patients had ≥1 MD-related outpatient visits. The mean annual number of outpatient visits was 3.06 (±2.99). The mean annual direct medical cost for all patients was 1694.05 (±2513.71) RMB with 48.54% for antidepressant medications for hospitalized patients was 2190.97 (±16121.61) RMB with 15.03% for antidepressant medications and 66.45% for non-drug medical costs. CONCLUSIONS: In Beijing, China, most MDD patients also had comorbid conditions and were mainly treated in the outpatient setting. SSRI were the most commonly used antidepressants. The economic burden of MDD was considerable.

PMH24
ATOMOXETINE FOR THE TREATMENT OF NEWLY DIAGNOSED ADULTS WITH AHD - A COST EFFECTIVENESS ANALYSIS IN SPAIN
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OBJECTIVES: The first aim of this study was to receive medication authorization in Spain for the treatment of newly diagnosed adults with Attention-Deficit/Hyperactivity Disorder (ADHD). The second objective of this study was to assess the treatment with atomoxetine in adults with ADHD was cost-effective vs. placebo from the Spanish Healthcare System perspective. METHODS: A Markov state transition model was developed for a theoretical cohort of newly diagnosed adult patients with moderate-severe ADHD. Key input data (response and discontinuation) were derived from the atomoxetine trial program. Patients enter the model at the age of 18 and remain on atomoxetine (initiated at 80 mg for a week and then titrated to 80mg or 100mg) or placebo in the absence of another authorized medication for the treatment of newly diagnosed adults with ADHD). Treatment success has been defined as response to treatment, showing improvements in both symptom severity and symptoms as measured by the CAARS and CGI-I scales, respectively. Treatment, non-specific health state utilities were populated from estimates of a vignette study in adults conducted in the UK. Drug and direct medical costs were obtained from local databases. In accordance with other published ADHD models, a 1-year time horizon was used. To check the model for robustness, probabilistic and deterministic sensitivity analyses were performed. RESULTS: Atomoxetine was found to be cost-effective with an ICER of €24,248/QALY despite patients in placebo arm only accumulating cost of physician visits. In addition, a QALY gain of 0.023 was projected, due to greater proportion of patients responding to treatment in the atomoxetine arm. Results from a probabilistic sensitivity analysis indicated that atomoxetine has a 57% probabil- ity of being more cost-effective than placebo at a willingness to pay threshold of €30,000/QALY in the Spanish setting. CONCLUSIONS: Atomoxetine is a cost-effective option versus no active medical treatment for newly diagnosed adults with ADHD in Spain.

PMH25
ARIPRIPOZOLE ONCE-MONTHLY IS A COST-EFFECTIVE THERAPEUTIC OPTION IN THE MAINTENANCE TREATMENT OF SCHIZOPHRENIA: RESULTS FROM A MARKOV MODEL
Dunlop W1, Caughman G2, Beilaiti M1, Robinson P1, Treaur M1
OBJECTIVES: Severe, persistent, chronic disease with enormous economic consequences for the society. This study aimed at building a conceptual framework to evaluate the cost-effectiveness of Aripiprazole Once-Monthly (AOM) versus placebo for atypical long-acting injectable (LAI) antipsychotics (Ziprasidone LAI (RLAI), Paliperidone Palmitate (PP) and Olanzapine Farno (OP) in the mainte-