robust. **CONCLUSIONS:** In the treatment of schizophrenia, quetiapine XR dominates quetiapine IR due to lower cost, reduced relapse and hospitalization rate and dominates paliperidone due to lower cost. **REFERENCE:** Edwards NC et al. Pharmacoeconomics 2005;23(Suppl. 1):75–89.

PMH44

COST AND EFFECTIVENESS OF FLUPENTIXOL COMPARED TO OTHER FIRST AND SECOND GENERATION ANTIPSYCHOTIC AGENTS FOR THE TREATMENT OF SCHIZOPHRENIA IN ROUTINE CARE

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OBJECTIVES: To analyse effectiveness of flupentixol compared to other first and second generation antipsychotics for the treatment of schizophrenia in routine care. **METHODS:** A retrospective cohort study was conducted using administrative data from four sickness funds with a combined number of 12.6 million insured. Patients discharged from hospital with an ICD-10 diagnosis of schizophrenia in 2003 were followed for 12 months. Rehospitalisation during follow-up was analysed using a hurdle regression model. Differences in treatment costs, defined as cost of pharmaceutical and cost of inpatient care, were analysed assuming a gamma distribution for treatment costs and using a log-link-function. To control for possible confounding, the models adjusted for age, gender, and prior hospitalisations due to schizophrenia in 2000, 2001 and 2002. **RESULTS:** A total of 8610 insured were included, of which 177 treated with flupentixol during follow-up, while 429 and 2284 were treated with other first and second generation antipsychotics, respectively. Compared to patients treated with flupentixol (predicted hospitalisation for the average patient: 19 days), predicted hospitalisation did not differ significantly for patients treated with other first (16.9 days, p = 0.0919) or second generation antipsychotics (19.5 days, p = 0.1418). Predicted treatment costs for the average patient (age = 41.5 years, male, prior hospitalisation 26.7 days per year) were €4384 if treated with flupentixol, €7021 if treated with an other first generation antipsychotic, and €6819 if treated with a second generation antipsychotic. Differences in treatment costs between first and second generation antipsychotics increased with severity. **CONCLUSIONS:** The effectiveness of flupentixol preventing relapse in patients with schizophrenia appears to be similar to that of other first and second generation antipsychotics. However, the low treatment costs for patients treated with flupentixol might be explained by the small number of patients who were hospitalised (70 insured) and the larger share of patients treated with its depot formulation.

PMH45

COST-UTILITY OF AGOMELATINE, VENLAFAXINE AND PLACEBO IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER (MDD) IN FINLAND—ECONOMIC MODELLING STUDY USING REPRESENTATIVE POPULATION DATA

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OBJECTIVES: A cost-utility analysis of a new antidepressant agomelatine (Valdoxan) compared to generic venlafaxine and placebo in the treatment of MDD was performed from the Finnish societal perspective. **METHODS:** The analysis is based on a Markov state transition model with second-order Monte Carlo simulation and two year timeframe. Conservatively, agomelatine and venlafaxine were assumed to be equally effective in the treatment of depressive symptoms, but to differ in costs, side effect profiles, clinically significant sleep disorders during treatment, discontinuation rates and discontinuation symptoms based on agomelatine clinical trials. Finnish EQ-5D utilities, health care resource use, travelling and production losses (derived from the actual work rates of MDD patients using human capital approach) were estimated based on a Finnish study including 298 patients with MDD, adjusted for confounders (age, gender, marital status, income and education), and matched to model states and adverse events using two-stage multivariate models. The costs were presented in 2008 value. Annual discounting rate considered was 3%. **RESULTS:** Compared to generic venlafaxine and placebo the treatment with agomelatine resulted in 0.012 and 0.066 additional quality-adjusted life-years (QALY) gained, and in 356 and −€126 additional treatment costs during the two year time-frame, respectively. The corresponding additional costs including production losses were 220 and −€3255. Agomelatine was associated with an incremental treatment cost of €29,000/QALY gained compared to generic venlafaxine. When production losses were included, this ratio fell to €18,000/QALY gained. According to cost-effectiveness acceptability frontier (excl. production losses), the probability of agomelatine's cost-effectiveness was 57 and 90% with the willingness-to-pay levels of €30,000 and €50,000 per QALY gained, respectively. Agomelatine dominated placebo. One-way sensitivity analyses showed that the results were robust to key parameter changes. **CONCLUSIONS:** Agomelatine is a cost-effective treatment for MDD versus generic venlafaxine and dominant versus placebo based on the representative Finnish data.

PMH46

ESTIMATING THE COSTS OF PSYCHIATRIC HOSPITAL SERVICES IN NIGERIA; A CASE STUDY OF FEDERAL NEUROPSYCHIATRIC HOSPITAL ENUGU, SOUTH EAST NIGERIA

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OBJECTIVES: Little or no information exist on the cost of mental health services in Africa, even though mental health disorders represent a major public health concern in the region, in terms of health and economic impact. The study estimated the total and average/unit costs of psychiatric hospital services (including inpatients and outpatients services) to guide policy and psychiatric hospital management efficiency in Nigeria. **METHODS:** The study was exploratory and analytical, examining 2008 data. Using standardized costing methodology based on ingredient approach, top-down methodology was combined with step-down approach to allocate resources (overhead and indirect costs) to the final cost centers. All costs associated with treatment of the psychiatric patients (including annualised costs of capital items) were measured on aggregate basis as well as on per capita basis. Costs were calculated from the perspective of the health care facility, and converted to US Dollars at the 2008 exchange rate. **RESULTS:** Personnel costs average over 75% in all departments. Unit cost of outpatient visit is similar to the cost of inpatient day averaging $50, while cost per inpatient admission is about $3288. Cost of emergency consultation is about two times the cost of an outpatient visit or inpatient day. About 65 new outpatients could be treated for the cost of one inpatient admission. Levels of subsidization for inpatients are over 90% while ancillary services are not subsidized hence full cost recovery. Cost of drugs is about 4.4% of the total costs and each prescription averaged $7.48. **CONCLUSIONS:** The unit cost estimates fall within the European estimates for psychiatric health services and WHO-CHOICE's 'high estimates' for tertiary health facilities in SSA. Adequate research is needed to determine the cost of providing psychiatric hospital services in Africa to inform effective policy and improved management efficiency for mental health services in the region.

PMH47

ASSOCIATION BETWEEN ANTIPSYCHOTIC TREATMENT AND CLINICAL AND ECONOMIC OUTCOMES IN SCHIZOPHRENIA AND BIPOLAR DISORDER

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OBJECTIVES: Clinical efficacy and symptom control are the primary basis for atypical antipsychotic (AAP) selection. Clinical effectiveness outcomes are less well studied as treatment considerations. Retrospective administrative-claims data analyses for patients with schizophrenia and bipolar disorder were completed to characterize the association between AP treatment and clinical and economic patient outcomes. **METHODS:** Patients with schizophrenia (n = 2737) or bipolar disorder (n = 9707) on AAP (aripiprazole, olanzapine, risperidone, quetiapine or ziprasidone) treatment were identified in the 2004–2005 PharMetrics Patient-Centric Database. Patients with ≥12 months continuous enrollment before and after their earliest AAP claim were included in the analyses and stratified by their most-recent AAP claim. Treatment cohorts were propensity score matched. Index treatment differences were characterized by multivariable regression models. Time to discontinuation (Cox proportional hazard regression), psychiatric admission probability (logistic regression) and expenditures (GLM) were evaluated. Post–index period costs were tallied. **RESULTS:** Schizophrenia patient cohorts were aripiprazole (n = 367), olanzapine (n = 755), risperidone (n = 1004), quetiapine (n = 404) and ziprasidone (n = 207). Mean age range was 40–44 years. After propensity score matching, there were no significant differences across cohorts in time to discontinuation and psychiatric hospitalization probability. Total quetiapine expenditures were greater than ziprasidone ($16,417 vs. $12,547; p = 0.0024). **CONCLUSIONS:** Limited statistical differences were observed in this population. Further research should be conducted to understand whether such differences occur in other large databases and their clinical and economic relevance for AAP patient populations.

PMH48

COST-EFFECTIVENESS OF QUETIAPINE EXTENDED RELEASE VERSUS PAROXETINE AND LITHIUM IN ACUTE BIPOLAR DEPRESSION

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OBJECTIVES: To evaluate the cost-effectiveness of quetiapine extended release 300 mg once daily (o.d.) in adult patients with acute bipolar depression compared with average standard adult doses of paroxetine 20 mg o.d. and lithium 1.2 g o.d. **METHODS:** A weekly cycle 7-state markov model was designed to evaluate the cost-effectiveness of quetiapine extended release over a 3-year time horizon from the perspective of the UK National Health Service. Remission, treatment-emergent mania, discontinuations, significant weight-gain (≥7%) and extrapyramidal adverse event rate probabilities were used in the model. These, in the form of relative risks, were obtained from two separate indirect comparisons of quetiapine extended release versus paroxetine and lithium with placebo as the common comparator. These comparisons were obtained from randomised blinded studies in the AstraZeneca trial registry for quetiapine in the treatment of acute bipolar depression. A systematic literature review was completed to identify suitable health state utility values. Costs included pharmacological therapy and resource use associated with the treatment of mood events. Results were reported in cost (2009 values) per quality-adjusted life years (QALYs). A probabilistic sensitivity analysis (PSA) was conducted to assess the robustness of the results. **RESULTS:** Quetiapine extended release was a cost-effective treatment option for adults with acute bipolar depression versus both paroxetine and lithium. The deterministic incremental cost-effectiveness ratios were £1,541/QALY and £14,548/QALY, when quetiapine extended release was compared with paroxetine and lithium, respectively. These results were supported in the probabilistic sensitivity analysis. Eighty-four percent and 92% of simulations found quetiapine extended release to be cost-effective at a threshold of £30,000/QALY versus paroxetine and lithium, respectively. **CONCLUSIONS:** The results of this cost-utility analysis suggest that not only is