bodily anxiety or restlessness with QTP (OR 0.506, 95%CrI: 0.290, 0.789), decrease in EPS with QTP (OR 0.441, 95%CrI: 0.129, 0.910), increase in weight gain with OLZ (OR 2.139, 95%CrI: 1.764, 2.626), and decrease in weight gain with ZPD (OR 0.466, 95%CrI: 0.317, 0.657). **CONCLUSIONS:** The results of this systematic review paint a complex picture akin to the nature of schizophrenia and bipolar disorder, reinforcing the importance of treatment choice. To achieve optimal outcomes, physicians need to consider efficacy and tolerability together with the patient's psychiatric history, preferences and values when making treatment decisions.

PMH10

TOLERABILITY OF ONCE-DAILY EXTENDED RELEASE QUETIAPINE COMPARED TO QUETIAPINE IMMEDIATE RELEASE: A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS IN SCHIZOPHRENIA

Edwards SJ, Korim F
AstraZeneca UK Ltd, Luton, UK

OBJECTIVES: In 2002, the National Institute for Health and Clinical Excellence (NICE) highlighted extrapyramidal symptoms (EPS), sexual dysfunction, sedation, and weight gain, as the outcomes considered by patients taking atypical antipsychotics to be the most troublesome. This research was designed to compare the tolerability of the new extended release quetiapine to the existing quetiapine immediate release formulation on these outcomes in addition to orthostatic hypotension, which could be a significant cause of morbidity. **METHODS:** A meta-analysis of the four regulatory randomised controlled trials (Study 041, 133, 132 and 146) comparing quetiapine extended release with the immediate release formulation using a fixed effect model. Summary effect estimate was calculated as relative risk (RR) with 95% confidence interval (95% CI) where RR < 1 favours extended release and RR > 1 favours immediate release. All comparisons were conducted on a mg-for-mg basis (300 mg, 400 mg 600 mg and 800 mg) for the two formulations. Statistical heterogeneity was tested for using a chi-square test. A sensitivity analysis was conducted using a random effects model. **RESULTS:** All outcomes were measured consistently in the trials included in the analyses. There were no significant differences between the two formulations of quetiapine for any outcomes assessed. Individual results were as follows: EPS RR 1.067 (95%CI: 0.694 to 1.641; p = 0.767); orthostatic hypotension RR 1.089 (95%CI: 0.744 to 1.595; p = 0.661); sedation RR 0.781 (95%CI: 0.569 to 1.073; p = 0.128); weight gain RR 0.784 (95%CI: 0.521 to 1.180; p = 0.244); prolactin RR 0.708 (95%CI: 0.465 to 1.077; p = 0.107). Significant heterogeneity was not detected in any comparison (all p > 0.42) and the effect of using a random effects model made no difference to the summary effect estimates. **CONCLUSIONS:** The meta-analysis suggests that the tolerability profile of extended release quetiapine is consistent with that of the immediate release formulation.

MENTAL HEALTH—Cost Studies

PMH11

DRUG-RELATED PUBLIC EXPENDITURE IN EUROPE: THE BUDGET IMPACT OF ILLEGAL DRUGS

Prieto L
European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal

OBJECTIVES: By testing a methodology that combines labelled and non-labelled public expenditure, this report aims to produce first estimates of the amounts European governments spend on the illegal drug problem. **METHODS:** The European Information Network on Drugs and Drug Addiction (REITOX) was asked to list any budgeted labelled drug-related fund found after reviewing government budgets for the year 2005 in 30 countries. In order to ensure consistency in comparing figures over time and across countries, labelled expenditure was classified according to the International Classification of the Functions of Government (COFOG). Since not all drug-related expenditure is identified as such in budgets, modelling approaches were used to estimate the amount embedded in other programmes and interventions. Non-labelled drug-related expenditure was obtained by using a top-down costing approach to estimate the proportion of expenditure causally attributable to drug use. Wherever possible, REITOX explored feasible definitions of 'attributable proportions' for estimating non-labelled drug-related expenditure under two COFOG functions: public order and safety and health. **RESULTS:** On the whole, countries have a considerable amount of quality information available on this type of costs, although calculating the non-labelled constituent is often an arduous task. Estimates from reporting countries extrapolated to European level arrived at a total cost of drug-related public expenditure in 2005 of €34 billion, which is equivalent to 0.3% of the sum of the GDP of all of the countries. This represents an average expenditure of €60 per European citizen per year. **CONCLUSIONS:** Whilst such figures should still be used with caution (the methodology still needs refining and country data is in no way uniform), one observation the report makes is that the disbursements identified mainly refer to public expenditure made at central government level. The future inclusion of sub-national government expenditure will certainly increase the amounts of public expenditure estimated.

PMH12

BUDGET IMPACT OF GENERIC ANTIPSYCHOTIC SUBSTITUTION—A DATABASE ANALYSIS IN GERMANY

Rudolph I, Sindern J
Janssen-Cilag GmbH, Neuss, Germany

Cost containment in Germany is to a large extent regulated by fixed doctor's budgets *(Richtgrößen)* for treatment of patients in statutory health insurance (SHI). With Olanzapine (OLA) and oral Risperidone (RIS) two of the most often used second generation antipsychotics (SGA) lost patent in 2007. Generic substitution could lead to significant cost savings. **OBJECTIVES:** Aim of this database analysis was to estimate the budget impact of prescribing generic OLA and RIS and to evaluate the potential for a more individualized therapy in schizophrenia without exceeding budgets. **METHODS:** Using the IMS Disease Analyzer based on the electronic medical records of 112 psychiatrist practices in Germany, a retrospective analysis of drug expenditures for schizophrenia was conducted. As reference data from QIV 2007 were used. Budget impact was then estimated based on a scenario assuming generic prices being 20% (RIS) or 30% (OLA) of original and an overall generic patient share of 80%. **RESULTS:** Data of 93.844 SHI-insured patients were analyzed, 65.028 of those with drug prescriptions in QIV 2007. Mean drug expenditures per patient in QIV 2007 was €195.52.7% of drug expenditures of psychiatrists could be explained by SGA prescriptions. A total of 55.1% of their patients treated with SGA received either RIS or OLA. This corresponded to 49.3% of costs for SGA. The estimated budget impact according to the scenario is a cost saving of 25.6% of the drug expenditure for SGA. **CONCLUSIONS:** Especially in schizophrenia there is a need for therapy optimization according to current treatment guidelines and as also aspired by payers. As the data show, there is a significant cost saving potential from use of generic SGA. These

savings provide the opportunity for a more individualized therapy in those schizophrenic patients who are in need of and without budget overspend.

PMH13

COST-UTILITY AND BUDGET IMPACT OF SERTINDOLE IN THE TREATMENT OF SCHIZOPHRENIA IN POLAND

Walczak J, Dardzinski W, Pawlik D, Nogas G
Arcana Institute, Cracow, Poland

OBJECTIVES: 1) To assess cost-utility of sertindole (Serdolect®) compared with commonly used antipsychotic drugs in Poland—haloperidol and risperidone in the treatment of schizophrenia, and 2) To assess the financial consequences of sertindole reimbursement for Polish National Health Fund (NHF) budget.—haloperidol and risperidone in the treatment of schizophrenia, and 2) To assess the financial consequences of sertindole reimbursement for Polish National Health Fund (NHF) budget. **METHODS:** Cost-utility decision model comparing three pharmacotherapy strategies in the treatment of chronic schizophrenia (sertindole, risperidone, haloperidol) was developed. Payer perspective for health services (NHF budget and patient) and one-year time horizon were undertaken. Measure of effectiveness was expressed in quality adjusted life years (QALYs). Data on clinical efficacy based on published literature. Main parameters of the model were: compliance, clinical response, recurrence, adverse events, cost parameters (eg. drugs, AEs, treatment in hospital and outpatient setting, GP) and disutilities associated with AEs and relapse. Budget impact analysis was performed in a 5-year horizon following Serdolect® introduction. **RESULTS:** In one-year horizon, incremental cost of QALY saved (ICER) was: PLN14,117 (sertindole vs. risperidone) and PLN56,044 (sertindole vs haloperidol). The sensitivity analyses showed the robustness of the results. Based on five year budget forecast, public payer expenditures on atypical antipsychotic drugs would increase by 0.005% (PLN13,478) in year one and by 0.118% (PLN402,243) in year five of Serdolect® reimbursement. **CONCLUSIONS:** ICERs indicate that sertindole is a cost-effective strategy compared to risperidone and haloperidol in the treatment of chronic schizophrenia in Poland. Reimbursement of Serdolect® would result in a minor increase in Polish NHF expenditures. Reimbursement of Serdolect® would result in a minor increase in Polish NHF expenditures.

PMH14

THE COST-EFFECTIVENESS OF QUETIAPINE EXTENDED-RELEASE VERSUS OLANZAPINE FOLLOWING GENERIC RISPERIDONE IN PATIENTS WITH FIRST EPISODE SCHIZOPHRENIA

Meier G
AstraZeneca, Luton, Bedfordshire, UK

OBJECTIVES: Compare the cost-effectiveness of quetiapine extended-release versus olanzapine, in patients with first episode schizophrenia who have failed on generic risperidone. **METHODS:** A one-year, decision analytic model populated with appropriate published efficacy data together with drug acquisition and resource use costs, was employed to illustrate the possible consequences of treatment with generic risperidone followed by either olanzapine or quetiapine extended-release. The perspective taken was that of the UK National Health Service. The clinical outcomes measured and compared were: discontinuation due to clinical reasons; response; relapse; number of patients effectively managed; and those requiring further intervention. An assumption was made that quetiapine extended-release would deliver the same outcomes as the instant-release formulation in this population. The doses applied (risperidone 3.3mg, olanzapine 15.7mg and quetiapine extended-release 646 mg) were the mean doses observed in the clinical trials. **RESULTS:** Relative to olanzapine more patients were effectively managed on quetiapine (5%). The total cost per effectively managed patient was estimated to be higher for olanzapine compared to quetiapine (£21,658 and £20,955 respectively). Quetiapine also had fewer patients that: discontinued due to clinical reasons; failed to respond; relapsed; or required additional intervention relative to olanzapine (28%, 5%, 9% and 13% respectively). **CONCLUSIONS:** Not all atypical-naive patients that receive generic risperidone will tolerate or respond adequately to therapy and for those patients that require subsequent treatment with an atypical antipsychotic, quetiapine extended-release is a cost-effective second-line treatment choice compared to olanzapine. The analysis is limited by the lack of comparative data in this population. The effectiveness of quetiapine extended-release was assumed to be the same as the instant-release formulation, however, due to a less complicated and shorter titration regimen allowing therapeutic dose to be reached much sooner, quetiapine extended-release may have added benefit via a positive impact on patient compliance and psychosis management.

PMH15

COST-EFFECTIVENESS OF QUETIAPINE IN COMBINATION WITH LITHIUM/DIVALPROEX IN MAINTENANCE TREATMENT OF BIPOLAR I DISORDER

Fajutrao L[1], Locklear JC[2], Liu S[3], Paulson OB[4]
[1]AstraZeneca R&D, Sodertalje, Sweden, [2]3AstraZeneca Pharmaceuticals LP, Wilmington, DE, USA,
[3]AstraZeneca Pharmaceuticals LP, Wilmington, DE, USA,
[4]AstraZeneca Pharmaceuticals, Södertälje, Sweden

OBJECTIVES: To assess the cost-effectiveness of quetiapine (QTP) in combination with lithium (Li) or divalproex (DVP) (QTP+Li/DVP) in comparison with placebo in combination with lithium or divalproex (Li/DVP alone) in the maintenance treatment of bipolar I disorder. **METHODS:** A Markov decision-analytic model was developed to estimate the relative costs and outcomes associated with QTP+Li/DVP compared with Li/DVP alone from the perspective of the UK National Health Service. Model parameters and transition probabilities were derived from 2 identical randomized, double-blind clinical trials of up to 104 weeks' duration and with a combined ITT patient population of 1326 (Trials 126 and 127). The Markov model followed, over 2 years, 1000 hypothetical patients (receiving either QTP+Li/DVP or Li/DVP alone) with bipolar I disorder in remission, where each patient could move through 1 of 4 mood states (euthymia, mania, depression, or no active therapy) through 8 quarterly cycles. During each cycle, a patient accumulated costs and outcomes and faced a probability of transitioning to another mood state. The reference year was 2007 and the discount rate was 3.5%. **RESULTS:** Compared with Li/DVP alone, QTP+Li/DVP significantly reduced the number of acute mood events per patient per year from 0.92 to 0.42 with an ICER of £506 per acute mood event averted. QTP+Li/DVP was also associated with reductions of 54% and 55% in rates of acute mania and depression events, a 25% reduction in hospitalizations related to acute mania, and a 38% reduction in hospitalizations related to acute depression, all leading to a 29% reduction in hospitalization costs. The incremental cost per QALY gained for QTP+Li/DVP treatment was £7453. Sensitivity analyses found the results to be robust. **CONCLUSIONS:** QTP+Li/DVP is cost-effective and has potential benefits derived from reduced hospitalizations associated with acute mood events, compared with Li/DVP alone.