tivariate sensitivity analysis (MSA) was carried out to assess the robustness of results. RESULTS: RLAI generates health benefits of 0.04 QALYs over olanzapine (mainly due to improved compliance) and 0.15 QALYs over haloperidol depot (mainly due to improved symptom control). Cost-savings are generated over both comparators (Sweden: €425 [4000 kr] and €5750 [54,000 kr]) as reductions in hospitalization and psychiatrist costs offset medication costs. Health gains combined with cost savings imply dominance. The MSA suggest results are robust to changes in parameters, but respond to patient distribution and the modeled treatment differences (in terms of side effects, compliance, and symptom reduction). The MSA showed that there is a 57% and 93% chance that RLAI dominates olanzapine and haloperidol depot respectively. Health gains and cost savings due to RLAI are largest amongst the more severe patients. Average time until treatment discontinuation on haloperidol depot, olanzapine, and RLAI is predicted to be 1.11, 1.24 and 1.44 years, respectively. CONCLUSION: RLAI is predicted to dominate olanzapine and haloperidol depot in Sweden. Outcomes are robust to reasonable changes in input parameters. Health benefits and cost savings are largest amongst more severe patients.

**PMH22**

**A PHARMACOECONOMIC ANALYSIS OF COMPLIANCE GAINS ON ANTIPSYCHOTIC MEDICATIONS**

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OBJECTIVES: Compliance amongst schizophrenia patients is typically poor. Consequently treatments which are equally efficacious under trial-based conditions but face different compliance rates in clinical practice (e.g. due to side-effect profile, ease of use, reputation) may result in differences in effectiveness not observed during trials. This study analyzes the impact of differences in compliance on antipsychotics using a pharmacoeconomic discrete event simulation (DES) model, adapted to the Swedish treatment setting. METHODS: An existing five-year DES model was adapted such that the treatment arms under comparison were identical, except in terms of the share of compliant patients. Non-compliant patients experience shorter times between relapses and have inferior symptom control compared to their compliant counterparts. The difference in compliance was varied from 0 to 15%, and incremental costs and effects were recorded and analyzed. RESULTS: With a 5%, 10% and 15% difference in compliance, incremental effects increase to 0.021, 0.037 and 0.058 respectively, while cost-savings are generated of 31,000 kr, 55,000 kr and 83,000 kr respectively (9.3 kr = 1€). Hence, each %-point of compliance gain is predicted to roughly result in cost-savings of 6,000 kr and QALY gains of 0.004. On average, the model predicts that with a 10% increase in compliance 0.4 relapses are prevented, average PANSS decreases by 3 points and patients spend 23 days less in hospital over 5 years. CONCLUSION: The DES model predicts that increases in compliance may lead to considerable cost-savings and health improvements. Hence efficacy rates from clinical trials should not be interpreted at face value, but should be discussed in tandem with expectations concerning compliance, in light of product characteristics such as side-effects. These results further suggest that efforts to improve compliance among schizophrenics (including non-pharmacological efforts, such as family therapy, phone message reminders, etc) are expected to prove cost-effective if their compliance gains outweigh their additional costs.

**PMH23**

**COST-EFFECTIVENESS OF OLANZAPINE VERSUS GENERIC RISPERIDONE AND OTHER ANTIPSYCHOTICS IN STANDARD ORAL FORMULATIONS IN PATIENTS WITH SCHIZOPHRENIA IN THE US**

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OBJECTIVES: To assess the cost-effectiveness of olanzapine versus generic risperidone and other antipsychotics in standard oral formulations—quetiapine, ziprasidone, aripiprazole, and perphenazine—in the usual treatment of schizophrenia patients from a U.S. health care system perspective. METHODS: Published medical literature, unpublished data and clinical expert panel were used to populate a micro-simulation model comparing six antipsychotics in the usual care of schizophrenia. The 1-year model captures clinical and cost parameters including adherence levels, treatment discontinuation rates by reason, relapse with and without inpatient hospitalization, quality adjusted life years, treatment-emergent adverse events, health care resource utilization and associated costs. Sequential bifurcation identified the most important input parameters on which sensitivity analyses were performed. Key results included mean 2007 annual direct cost per treatment and incremental cost-effectiveness values among treatments for cost per stable relapse-free quarter, cost per inpatient relapse avoided, and cost per QALY gained. RESULTS: Based on model projections, the annual proportion of stable relapse-free patients was 71% for olanzapine, 56% for risperidone. The proportion of patients experiencing inpatient relapse was 26% for olanzapine, 40% for risperidone. QALY were 0.747 for olanzapine and 0.723 for risperidone. Total health care cost was $9,471 for olanzapine and $11,093 for generic risperidone, driven by higher inpatient hospitalization for risperidone therapy. Sensitivity analyses found olanzapine to be the dominant choice at any cost of generic risperidone, even when given free. All other comparators in the model were also dominated by olanzapine. The model was found by an independent cost-effectiveness expert to fulfill ISPOR task force’s 13 recommended attributes of a good decision model. CONCLUSION: The utilization of olanzapine is predicted in this model to result in better clinical outcomes and lower total health care costs compared to generic risperidone, quetiapine, ziprasidone, aripiprazole, and perphenazine. Olanzapine may therefore be a cost-effective therapeutic option for patients with schizophrenia.

**PMH24**

**THE COST EFFECTIVENESS OF PALIPERIDONE EXTENDED-RELEASE OROS IN SWEDEN, FINLAND, DENMARK AND NORWAY**

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OBJECTIVES: Paliperidone Extended-Release OROS (ER) is a new atypical antipsychotic for schizophrenia. The cost effectiveness of paliperidone ER compared to olanzapine was analyzed in a Swedish, Norwegian, Finnish and Danish setting, using a pharmacoeconomic discrete event simulation (DES) model. METHODS: Following interviews with local expert panels an existing DES model, which simulates individual schizophrenia patients over a five-year time period, was adapted to reflect schizophrenia treatment and comply with local health-economic guidelines in Sweden, Finland, Denmark and Norway. Model inputs were derived from clinical trial data, literature and database analysis and expert opinion. Cost estimates depend on
PMH25

COST EFFICENTIVENESS OF AMISULPRID IN THE TREATMENT OF SCHIZOPHRENIA

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OBJECTIVES: To estimate cost-effectiveness of various therapy scenarios of treating schizophrenia with amisulprid (Soliyan), a medicine of 2nd generation, in comparison with haloperidol.

METHODS: Cost-effectiveness decision model was prepared. Treatment with amisulprid vs haloperidol was compared in following scenarios: Scenario 1—amisulprid vs haloperidol (with change for risperidone in case of recurrence in any arm); Scenario 2—amisulprid vs haloperidol for 1 year (as first line medicine) followed by treatment with new atypical medicine (olanzapine or risperidone) in case of recurrence. The target population was patients suffered from chronic schizophrenia, at the moment of exacerbation of disease. Analysis was performed from the payers’ perspective (the National Health Budget and patient), with a time horizon of 1 year. Estimates of effectiveness were expressed with QALY (quality adjusted life years). Following parameters were considered: risk of extrapyramidal symptoms, recurrence, suicide and rates of compliance. Costs of medicines (first line therapy with amisulprid or haloperidol and possibly second line therapy with olanzapine or risperidone in case of recurrence in haloperidol arm), correcting therapy with olanzapine or risperidone in case of recurrence), treatment of EPS, hospitalisation due to recurrence and outpatient consultations were taken into account.

RESULTS: In the scenario 1, cost of 1 QALY due to replacing standard first line therapy with haloperidol by amisulprid is 1601 PLN. In scenario 2, using amisulprid during one year instead of haloperidol as first line therapy followed by olanzapine in case of recurrence, is a cost effective therapy.