

of current antipsychotic medication is cost-effective despite higher costs of antipsychotic medication. Positive clinical and economic results persisted over 24 months.

PMH35

COST-EFFECTIVENESS OF MEMANTINE IN THE TREATMENT OF MODERATE AND SEVERE ALZHEIMER'S DISEASE PATIENTS WITH AGITATION, AGGRESSION AND PSYCHOSIS—THE UK EXAMPLE

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OBJECTIVES: To assess the cost-effectiveness of memantine in moderate and severe AD patients who exhibit agitation/aggression and psychotic symptoms (APS) from the UK National Health Service and Personal Social Services perspective. **METHODS:** The cost-utility analysis was based on 5-year Markov cohort simulations. The model evaluated the impact of memantine on time to Full-Time-Care (FTC), Quality-Adjusted-Life-Years (QALYs) and costs, in pre-FTC patients compared with standard care, i.e. no pharmacotherapy or background treatment with acetylcholinesterase inhibitors. FTC was defined based on locus of care and patient's physical and functional dependency status. Transition probabilities, baseline characteristics, resource utilization volumes, health utility weights and mortality rates were derived from the 4.5-year London and South-East Region (LASER-AD) epidemiological study. Effectiveness estimates came from a meta-analysis of six large randomised clinical trials. Costs covered routine patient management, hospitalization, social community services, institutionalization, and medications. Results were reported in EUR (GBP), 2009. The model underwent extensive stochastic and one-way sensitivity analyses, testing the model assumptions and changes in input parameters. **RESULTS:** Over five years, patients receiving standard care spend on average 78.8 weeks in the pre-FTC state. Overall costs in this group were €117,960 (£98,810). QALYs were estimated at 1.49 (30% of full health). Memantine was associated with a longer time-to-FTC of 11.2 weeks, QALY gains of 0.07 and cost-savings of €5930 (£4970). Lower costs in the memantine group were due to prolonged pre-FTC period. Memantine was more effective and less costly strategy relative to standard care in 99.98% of simulations. The estimated benefits and cost savings were almost twice higher than those previously estimated in all moderate and severe AD patients, largely due to enhanced efficacy of memantine in APS patients, who, when left untreated, rapidly deteriorate. **CONCLUSIONS:** The model showed that memantine yielded higher benefits at no additional costs relative to its alternative.

PMH36

ECONOMIC EVALUATION ANALYSIS IN THE TREATMENT OF BIPOLAR DISORDER WITH ARIPIPRAZOLE AND OTHER ATYPICAL ANTIPSYCHOTIC DRUGS IN SPAIN

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OBJECTIVES: This analysis investigates the relative efficiency in the treatment of BD with the use atypical antipsychotics (AA): aripiprazole (ARI); olanzapine (OLA); quetiapine (QUE); risperidone (RIS); and ziprasidone (ZIP). **METHODS:** our analysis takes into consideration the treatment cost of AA and the impact on hospitalization costs associated with each AA. Mean daily dose of each AA, length of treatment and the probability of hospitalization for each AA were obtained from a retrospective study (90 days of follow-up) in 6,162 BD patients (Jing *et al.* 2009). The minimum acquisition cost per mg. of the mean daily dose, for each AA, is regarded as an efficiency criterion in Hospital Pharmacy Departments. The cost per day of hospitalization (€347.90) and the length of hospitalization associated to BD (18.1 days; 14.5–21.7) were obtained from a Spanish study. **RESULTS:** after 90 days of follow-up, hospitalization rates were higher with OLA (8.7%), QUE (8.5%), RIS (8.6%) and ZIP (10.2%) in comparison with ARI (5.9%; 5.8%; 5.7%; 6.5%, respectively). The treatment of BD with ARI gave rise to the following cost savings per patient, in relation to other AA: €149.31 ARI versus OLA; €33.42 ARI versus QUE; €19.45 ARI versus RIS; and €242.22 ARI versus ZIP. A sensitivity analysis tested the following variables: minimum daily dose for each AA; maximum daily dose for each AA; length of treatment with AA; and probability of hospitalization for each AA. The sensitivity analysis confirms the cost savings associated with aripiprazole, with the only exception of risperidone where the cost saving per patient is almost neutral (€–2.89). **CONCLUSIONS:** using the criterion of cost rationalization based upon the minimum acquisition cost per mg. aripiprazole may have economic benefits over other AA in terms of lower psychiatric treatment costs and lower total health care costs in the Spanish NHS.

PMH37

COST-EFFECTIVENESS OF ANTIPSYCHOTICS FOR THE TREATMENT OF RELAPSE PREVENTION FOR SCHIZOPHRENIA: THE SPANISH PERSPECTIVE

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OBJECTIVES: To assess the efficiency of the drugs used to reduce relapses in schizophrenia, taking into account costs and effectiveness (measured as QALY). **METHODS:**

The National Health Care System perspective and a 1 year temporal horizon have been used. Taking into account the last NICE review on schizophrenia¹, four fundamental aspects related with schizophrenia management were analyzed: relapse rates, treatment discontinuation due to intolerable side effects, treatment discontinuation due to other reasons and stable patients (where the probability of remission, EPS syndrome, weight gain, glucose intolerance and diabetes were analyzed). The health care direct costs corresponding to the drug acquisition costs have been analyzed together with the costs of the side effects considered, the cost of the complications (diabetes) and the costs of hospitalary relapses (stay and drug cost) updated with data from Spanish Ministry of Health (2008). A Monte Carlo simulation was performed to obtain the cost-effectiveness ratio (euros/QALY). **RESULTS:** Paliperidone ER presents the lower total costs (€3060) compared to the other strategies (risperidone = €3206; haloperidol = €3220; olanzapine = €3903; amisulpride = €4281; aripiprazole = €4719). Paliperidone ER presents the higher efficacy (QALY) compared to the other strategies (Paliperidone ER = 0.7573; risperidone = 0.7335; haloperidol = €0.7230; olanzapine = €0.7474; amisulpride = €0.7320; aripiprazole = €0.7379). With these results, we can conclude that all the strategies are dominated by Paliperidone ER with a C/E ratio of 4073 (risperidone = 4382; haloperidol = 4461; olanzapine = 5.235; amisulpride = 5.827; aripiprazole = 6.421). **CONCLUSIONS:** At a willingness-to-pay of €30,000 per QALY all the drugs considered are cost-effective in Spain. However, the most efficient (more net benefit, monetary (euros) and in health—QALYs) vs. Haloperidol are: paliperidone ER, followed by risperidone, olanzapine, amisulpride and aripiprazole.

PMH38

A COST UTILITY ANALYSIS OF FIRST LINE ANTIPSYCHOTICS FOR THE PREVENTION OF SCHIZOPHRENIA RELAPSE IN THE UNITED KINGDOM

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OBJECTIVES: To evaluate the cost-effectiveness of eight first line antipsychotics in the prevention of schizophrenia relapse, from a UK National Health Service and Personal Social Services perspective. **METHODS:** A Markov model, similar to that used by the National Institute for Health and Clinical Excellence in the Schizophrenia (update) guideline (published March 2009), was developed to assess the cost per QALY gained for amisulpride, aripiprazole, haloperidol, olanzapine, paliperidone, quetiapine (XL), risperidone and zotepine. Clinical parameters were populated with data from mixed treatment comparisons. Patients entered the model in remission and could remain in remission, relapse, move to next line of therapy due to side effects, or discontinue for other reasons. Utilities for schizophrenia in remission and relapse were taken from a direct utility elicitation study conducted in a UK population. Disutilities for side effects were captured. Resource use and unit costs (reference year 2009) were taken from published sources and a 10 year time horizon was adopted. Probabilistic results were derived from 10,000 model simulations. **RESULTS:** The deterministic analysis showed quetiapine (XL) to yield the most QALYs and lowest overall treatment costs. Model outcomes were supported by the probabilistic analysis but results were characterised by uncertainty. In one scenario, drug costs for all comparators bar quetiapine (XL) were set to zero. Quetiapine (XL) generated 7.051 QALYs compared to a range of 6.930–6.972 for other medications. Overall treatment costs for quetiapine (XL) were £153,104 compared to £155,766–£167,329 for other medications. Thus it was still the dominant strategy. **CONCLUSIONS:** The additional benefit of Quetiapine (XL) in terms of schizophrenia relapse prevention results in it being the most cost-effective of the antipsychotics assessed. Clinical efficacy is the key driver of cost-effectiveness in relapse prevention, hence generic antipsychotics should not be recommended based upon drug costs alone. Further long term trials of antipsychotics are required to reduce uncertainty.

PMH39

THE COST-UTILITY OF AGOMELATINE IN MAJOR DEPRESSIVE DISORDER IN POLAND

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OBJECTIVES: a cost-utility analysis of agomelatine, a treatment of major depressive disorders in adults, was performed from the Polish public payer's perspective (the National Health Fund). Agomelatine was compared with the most commonly used antidepressants in Poland, i.e. generic sertraline and generic venlafaxine. **METHODS:** The analysis with a time horizon of 2 years is based on a Markov model. The one-month cycle model included the following health states: depression episode, remission, well and death. It also incorporated sleep disorders, discontinuation rates, discontinuation symptoms and adverse drug reactions. The clinical parameters for compared drugs were extracted from head-to-head clinical trials. Utility and disutility estimates were derived from a systematic literature review. Only direct costs have been considered in order to be consistent with Polish pharmacoeconomic guidelines. Costs and effects were discounted at 5% and 3.5% per annum at year 1 respectively. **RESULTS:** The benefit of agomelatine over sertraline or venlafaxine was estimated at 0.005 QALY. This effectiveness was associated with the additional costs of 491 PLN and 149 PLN for agomelatine compared to sertraline and venlafaxine, respectively. The corresponding agomelatine incremental cost-utility ratios (ICURs) were therefore 92,000 PLN/QALY and 28,000 PLN/QALY. Sensitivity analysis demonstrated that agomelatine ICUR remained below the three times GDP per capita threshold (33,347 PLN for 2008) in 79.7% and 88.4% of the cases compared with sertraline and venlafaxine, respectively. **CONCLUSIONS:** From the Polish public payer's perspective,