Olanzapine appears to be a cost effective "rescue"

METHODS: Resource use and costs were obtained from hospital records of the biggest psychiatric hospital in Mexico ("Hospital San Fernando"). Probabilistic sensitivity analysis was performed and acceptability curves were constructed. RESULTS: Ziprasidone showed the lower expected annual costs per patient (US$17,139.5 ± 7,605.1) and the higher number of free months of psychotic symptoms (9.2 ± 1.5 months). Ziprasidone was followed by risperidone and clozapine who obtained annual expected costs of US$19,589.2 and US$24,656.1; and effectiveness of 8.8 and 8.9 months, respectively. Results were robust to Monte Carlo second order sensitivity analysis. Acceptability curves showed the same results with a mean of 60% of certainty. CONCLUSIONS: In Mexico, ziprasidone resulted the treatment most cost-effective, followed by risperidone, clozapine and olanzapine. These results should be taken into account by Mexican decision makers and clinicians in the management of patients with chronic schizophrenia.

**PMH10**

COST AND EFFECTIVENESS OF SWITCHING FROM RISPERIDONE TO OLANZAPINE IN THE TREATMENT OF SCHIZOPHRENIA

**OBJECTIVES:** To assess changes in cost and effectiveness parameters following switch from risperidone to olanzapine during the long-term treatment of schizophrenia patients. **METHODS:** Patients were participants in a randomized, open-label, 1-year cost-effectiveness trial of olanzapine, risperidone, and typical antipsychotics in the treatment of schizophrenia. Study protocol permitted antipsychotic switching when clinically warranted. **RESULTS:** Sixty of the 218 (27.5%) patients randomized to risperidone switched antipsychotics—with 43 (72%) switching to olanzapine. Average duration on risperidone before switching to olanzapine was 86.1 days (mean maximum dose 4.5 mg/day). Most of these switchers (86%) completed the 1-year study on olanzapine (average maximum dose 13.3 mg/day). Following switch to olanzapine, patients experienced significant improvements in clinical and social parameters (both, p < 0.001), with 35.7% of the prior non-remitters achieving remission status. Mean total daily costs changed from $49.5/day pre-switch, to $44.4/day post-switch (non-significant difference). **CONCLUSIONS:** Olanzapine appears to be a cost effective "rescue" option for patients who require switching from risperidone in the long-term treatment of schizophrenia.

**PMH11**

A COST-EFFECTIVENESS ANALYSIS MODEL FOR TREATMENT OF CHRONIC SCHIZOPHRENIA IN MEXICO

**OBJECTIVES:** Chronic schizophrenia is a high prevalence disease in Mexico which generates significant disabilities and economic expenditures on the Mexican Health System. The purpose of the study was to model the economic consequences of adverse events (AE) related with five antipsychotic drugs in adult patients in the Social Security Mexican Institute. **METHODS:** A cost–effectiveness model was developed using a Markov modeling approach. The model simulated treatment of a cohort of 1000 schizophrenics for twelve months, initiating treatment with one of five antipsychotic drugs; haloperidol (10 mg), ziprasidone (80 mg), risperidone (4 mg), olanzapine (15 mg) and clozapine (300 mg). Conditional probabilities of developing any AE (akathisia, weight gain, extrapyramidal symptoms) were obtained according to clinical trials previously published and were adjusted with local expert opinion surveys. Treatment was susceptible to be modified (decrease dose, switch medication). Effectiveness measure was the number of free months of psychotic symptoms. The analysis was conducted from the health-care payer's perspective (only direct medical costs were used). Resource use and costs were obtained from hospital records of the biggest psychiatric hospital in Mexico ("Hospital San Fernando"). Probabilistic sensitivity analysis was performed and acceptability curves were constructed. RESULTS: Ziprasidone showed the lower expected annual costs per patient (US$17,139.5 ± 7,605.1) and the higher number of free months of psychotic symptoms (9.2 ± 1.5 months). Ziprasidone was followed by risperidone and clozapine who obtained annual expected costs of US$19,589.2 and US$24,656.1; and effectiveness of 8.8 and 8.9 months, respectively. Results were robust to Monte Carlo second order sensitivity analysis. Acceptability curves showed the same results with a mean of 60% of certainty. CONCLUSIONS: In Mexico, ziprasidone resulted the treatment most cost-effective, followed by risperidone, clozapine and olanzapine. These results should be taken into account by Mexican decision makers and clinicians in the management of patients with chronic schizophrenia.

**PMH12**

AN ECONOMIC EVALUATION OF ATYPICAL ANTIpsychotic FOR BIPOLAR DISORDER IN THE NC MEDICAID PROGRAM

**OBJECTIVES:** This study examined health care and resource utilization associated with atypical antipsychotic treatment for bipolar disorder. **METHODS:** Using the NC Medicaid Claims database 3328 patients were identified who had 3 months pre- and 12 months post-treatment initiation data. Patients diagnosed with bipolar disorder were classified into three groups based on type of treatment during the first 30 days after treatment initiation (index date): atypical antipsychotic (AP2) monotherapy, atypical antipsychotic plus mood stabilizer (AP2 + MS) combination therapy, and mood stabilizer (MS) monotherapy. For the 12 month treatment period, total bipolar-related and total health-related costs were examined including and excluding index medication. Comparative costs of index medications were also analyzed. Propensity score matching was employed to balance baseline characteristics between the three comparison groups. Gamma regression models were further employed to estimate the average treatment effect on the cost outcomes. RESULTS: Compared to MS monotherapy, AP2 monotherapy and AP2 + MS therapy incurred higher index medication costs during the treatment period. Patients on AP2 monotherapy incurred significantly lower total health-related costs excluding index medication (−10.9%, p < 0.046), leading to no statistical difference in total health-related cost including index medication (1.5%, p < 0.76). In terms of total bipolar-related costs, patients on AP2 monotherapy had higher costs than MS monotherapy when including index medication costs (14.9%, p < 0.01). However, bipolar-related costs excluding index medication cost was significantly lower (−16.7%, p < 0.03). Results were similar
when comparing AP2 + MS therapy with MS monotherapy.

CONCLUSIONS: In terms of non-index medication bipolar-related costs, AP2 monotherapy was more cost saving than MS monotherapy in the treatment of bipolar disease. In terms of non-index medication bipolar-related costs, AP2 monotherapy and AP2 + MS therapy was more cost saving than MS monotherapy. However, when the cost of AP2 treatment was included, no significant differences were found.

AN ECONOMIC COST ANALYSIS OF ATYPICAL ANTI psychosis SINGLE TREATMENT FOR BIPOLAR DISORDER IN A MEDICAID PROGRAM

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OBJECTIVES: To evaluate the direct health care costs associated with olanzapine, risperidone, and quetiapine monotherapy among patients diagnosed with bipolar disorder (ICD-9: 296.4x, 296.8x). METHODS: Using a sample drawn from the NC Medicaid Claims database during August 2000 through January 2005. This study included patients with a bipolar-related diagnosis who were naïve to atypical antipsychotic treatment and were without a bipolar-related medical visit or hospitalization during 90 days prior to treatment initiation. Patients were followed for 12 months after initiation of atypical antipsychotic monotherapy (index drug). Costs of index drug, all bipolar-related medical care, and all health-related costs, both including and excluding index drug, were examined in the 12 month treatment period using Generalized Linear Model with Gamma Distribution and Log link. To account for potential confounds, the model included several covariates. RESULTS: A total of 838 continuously eligible patients met the inclusion criteria (393 olanzapine, 262 risperidone and 183 quetiapine). The costs of index drug for patients taking olanzapine were 43% (P < 0.0001) and 19% higher (P < 0.0001) than risperidone and quetiapine, respectively. In terms of total health-related cost there was no difference between patients treated with olanzapine and those treated with risperidone or quetiapine, including or excluding index drug. In terms of all bipolar-related medical care costs, the inclusion of index drug led to 15.2% (P < 0.04) higher costs for patients receiving olanzapine compared to risperidone, primarily due to the higher acquisition cost of olanzapine.

CONCLUSIONS: Despite significantly higher acquisition costs of olanzapine when used as mono-therapy for the treatment of bipolar disorder, total health-related costs with and without index drug were similar for olanzapine, risperidone and quetiapine. Bipolar-related medical costs excluding index drug were also similar for olanzapine, risperidone, and quetiapine treatment. However, the inclusion index drug costs resulted in higher bipolar-related medical costs for patients receiving olanzapine compared to risperidone.

BURDEN OF ILLNESS OF ALZHEIMER’S PATIENTS IN COMMERCIAL MANAGED CARE

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OBJECTIVE: To examine the acute adverse outcomes and direct health care costs among patients with Alzheimer’s disease (AD) using a retrospective, administrative claim database. METHODS: We identified an over-age-65 population with pharmacy and medical benefits enrolled in a large, US, geographically diverse, commercial managed care plan between May 2001 and December 2002. AD patients had at least one claim with an AD diagnosis or one filled prescription for medication used exclusively for AD treatment. This claim identified the index date. A control cohort consisted of non-AD patients with no dementia diagnosis over the pre- and post-index periods randomly matched (3:1) to the AD patients by age, gender, plan location, and length of enrollment. The first claim in the period identified the index date. All patients included in the study had a 12-month pre-index period, and a minimum of 30-days follow-up. We compared the prevalence of acute adverse outcomes and comorbidities between the AD and control cohorts. Additionally, we used a two-part model (one equation estimating the probability of any costs, and a generalized linear model with a gamma distribution and log-link function estimating the level of costs) to examine differences in adjusted annualized total health care costs between the AD patients and the controls. RESULTS: Both the AD patients (N = 4,550) and the controls (N = 13,650) had a mean age of 79 years. Approximately 70% of AD patients were identified based on an AD prescription. AD patients had a higher risk of fracture, accidental fall, and urinary tract infection than the controls. Annual adjusted total health care costs per patient were approximately $1418 greater for the AD cohort. CONCLUSIONS: AD patients had significantly greater risk of acute adverse outcomes and more health care resource utilization than age- and gender-matched controls in a large managed care plan.

BURDEN OF ILLNESS AMONG PATIENTS WITH ALZHEIMER’S DISEASE IN A COMMERCIALLY-INSURED POPULATION

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OBJECTIVES: To examine the direct medical costs of newly diagnosed patients with Alzheimer’s disease (AD) using retrospective health care claims data. METHODS: This study examined individuals aged 65 years and over with pharmacy benefits who had at least one claim with an AD diagnosis and were enrolled in commercially-insured and nationally-dispersed Medicare Risk plans between January 1999 and November 2003. Each AD patient had an “index date” where the first AD claim was observed, a 12-month pre-index period, and a minimum 30-day follow-up period. A control group consisted of individuals who had no AD or dementia over the study period and were randomly matched (2:1) to AD patients based on age, gender, and follow-up duration. The Charlson Comorbidity Index was used to examine the burden of comorbid medical conditions in the pre-index period. The primary measures of interest were annualized health care resource utilization and costs; a generalized linear model with a gamma distribution and log-link function was used to compare costs between the AD and control groups over the follow-up period. RESULTS: Both AD patients (n = 2475) and controls (n = 4950) were aged 82 years on average, 38% were male. AD patients had significantly more comorbid medical conditions than controls (mean Charlson score 1.6 vs. 1.2); the prevalence of diabetes, heart and vascular problems also was higher in the AD group. Inpatient costs contributed primarily to total annualized costs among AD patients, while outpatient costs dominated among controls. Average adjusted annualized costs for AD patients were more than five-fold higher compared to controls, driven primarily by inpatient costs ($21,150 vs. $4,053 for AD vs. control, respectively). CONCLUSIONS: AD patients have a significantly greater