PMH17

METABOLIC MONITORING AMONG SCHIZOPHRENIA PATIENTS INITIATED ON ATYPICAL ANTI Psychiatics IN THE VETERAN HEALTH ADMINISTRATION

Shi L1, Ascher-Svanum H2, Chiang Y1, Fonseca V1, Winstead D1
1Tulane University, New Orleans, LA, USA, 2Eli Lilly and Company, Indianapolis, IN, USA

OBJECTIVE: A large Veterans Integrated Service Network (VISN16) mandated in October 2003 metabolic monitoring prior to initiation of any antipsychotic. This study focused on schizophrenia patients who were initiated at VISN 16 on any atypical antipsychotic, and compared patient characteristics and resource utilization of patients who have undergone metabolic monitoring versus those who have not. METHODS: We used VISN16 electronic medical records data for October 2002–August 2003 to identify schizophrenia patients who were initiated on any atypical antipsychotic. Patients who have undergone metabolic monitoring in the 180 days prior to medication initiation (MetMon+) were compared to patients who did not (MetMon−), on patient characteristics and resource utilization in the 1-year prior to medication initiation. Logistic regression was used to identify predictors of undergoing metabolic monitoring. RESULTS: Most patients (3568 of 4709, or 75.8%) have undergone metabolic monitoring. Compared to the MetMon− group, the MetMon+ patients were more likely to be overweight or obese (40.8% vs. 19.4%, p < 0.001), were more likely to be hospitalized in the prior year (49.6% vs. 31.5%, p < 0.001), had a higher Charlson Comorbidity Index score (0.67 versus 0.46 p < 0.001), a higher rate of substance use disorders (45.3% vs. 35.8% p < 0.001), more office visits (23.5 vs. 15.9, p < 0.001), a longer duration of antipsychotic use (208.7 days vs. 160.0 days p < 0.001), a higher medication possession ratio (59% vs. 47% p < 0.001), and a larger number of different antipsychotic drugs (1.6 vs. 1.3, p < 0.001). The logistic regression model confirmed differences in patient characteristics and utilization patterns. CONCLUSION: A majority of the VISN 16 schizophrenia patients have undergone metabolic monitoring prior to initiation of atypical antipsychotics. Compared to patients who did not undergo metabolic monitoring, those who did were more likely to be overweight or obese and manifest a more severe illness profile.

PMH18

RISK OF NEUROLEPTIC MALIGNANT SYNDROME ASSOCIATED WITH ANTIPSYCHOTICS USE IN PATIENTS WITH BIPOLAR DISORDER: A RETROSPECTIVE POPULATION-BASED CASE-CONTROL STUDY

Chen Y1, Guo J1, Patel NC2, Steinbuch M1, Lin XD1, Buncher C1
1University of Cincinnati, Cincinnati, OH, USA, 2University of Georgia, Augusta, GA, USA, RP&G Pharmaceuticals, Inc, Mason, OH, USA, 3University of Cincinnati Medical Center, Cincinnati, OH, USA

OBJECTIVE: Although a few case reports and two case-control studies were available, the data regarding the risk of neuroleptic malignant syndrome (NMS) associated with the use of antipsychotic, particularly the potency of Dopamine 2 (D2) inhibitors, and other risk factors is limited. It aims to examine the risk of NMS associated with the use of antipsychotic, in particular potency of D2 inhibitor, and other risk factors. METHODS: A retrospective, population-based case-control study is performed using a managed care medical claims database. Among 154,474 patients with bipolar disorder, a total of 50 cases with NMS during the study period are identified and matched with 900 controls by age, and the year of the index date of bipolar disorder. Antipsychotics are grouped based upon the potency of D2 receptor that is measured by Ki values. Persons with ever other antipsychotics (except the high-potency antipsychotics) prescribed are then defined as low-potency antipsychotic users (Ki ≥ 1 nM). RESULTS: The use of antipsychotic is associated with a 2.36-fold increased risk of NMS after controlling the other risk factors (95% confidence interval [CI] = 1.08 to 5.19). Besides the use of antipsychotic, being male is associated with a 2-fold increased risk of NMS. Other risk factors, including the previous history of delirium, confusion, dehydration, and extrapyramidal signs, can significantly increase the risk of NMS. The adjusted ORs for the patients with the use of low-potency antipsychotics and high-potency antipsychotics are 1.47 (95%CI = 0.49 to 4.42), and 3.91 (95%CI = 1.38 to 11.14), respectively, as compared to non-users. CONCLUSION: Besides the use of antipsychotic, other factors including being male, presence of delirium, confusion, dehydration, and extrapyramidal signs could significantly increase the risk of NMS. The magnitude of the risk of NMS seems to be related to an antipsychotic potency of D2 inhibition.

PMH19

MONOTHERAPY WITH ATYPICAL ANTI Psychiatics FOR SCHIZOPHRENIA: A CLINICAL REVIEW AND ECONOMIC EVALUATION OF FIRST TWELVE MONTHS OF TREATMENT

Parashar P1, Boucher M2, Williams R3, Moulton K1, Herrmann N4, Normandin S5
1North American HERG, Toronto, ON, Canada, 2CADTH, Ottawa, ON, Canada, 3University of British Columbia, University of Victoria, Schizophrenia Service, Victoria, BC, BC, Canada, 4University of Toronto, ON, Canada

OBJECTIVE: To evaluate the clinical effectiveness and economic implications of the first year of treatment with atypical antipsychotics (AAPs) (risperidone, olanzapine, quetiapine, and clozapine) in patients with schizophrenia, to the Canadian publicly funded drug plans. METHODS: We synthesized the findings from a recent drug class review on AAPs and conducted a review of pharmacoeconomic studies. A decision tree model estimated the costs of the first year of treatment, accounting for the likelihood of switching from one AAP to another as patients progress from first to second line (risperidone, olanzapine and quetiapine) and third-line therapy options (clozapine). RESULTS: We could identify no high-quality evidence that could directly inform public policy questions regarding which atypical antipsychotics represent optimal treatment decisions for first-line therapy. The results of this study were based largely on two trials and one observational study, with patient populations of potentially limited generalizability. The first-year prescription costs for each new patient with risperidone, quetiapine, olanzapine, and clozapine are $17,03, $34,51, $42,85, and $69,89 (respectively (using the publicly drug plan costs in 2005). Accounting for the total treatment costs to the ministries of health (e.g., prescription, hospitalization, outpatients, group home, laboratory, and DM and EPS), the first year cost of treatment starting with risperidone, olanzapine, quetiapine and clozapine respectively are: $17,95, $18,32, $19,69, and $44,17 (all in 2005 Canadian dollars). Depending on dose used and drug costs and accounting for significant clinical events (e.g. relapse), total treatment costs to the ministries of health range from $16,18 to $19,167 starting with risperidone, $16,096 to $19,718 with olanzapine, and $18,050 to $20,556 with quetiapine. CONCLUSION: Olanzapine and risperidone are clinically more effective over quetiapine when used as first- or second-line therapy options for schizophrenia. Their lower relapse and discontinuation rates resulted to more attractive economic implications to payers from the public sector.