line were observed during 18-month treatment with risperidone long-acting injection in patients with schizophrenia.

WITHDRAWN

PMH13

DIFFERENTIAL EFFECTS OF OLANZAPINE AND CLOzapine ON TYPE II DIABETES: FINDINGS FROM A CLAIMS DATABASE

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OBJECTIVE: Olanzapine and clozapine are two atypical antipsychotics associated with high risk of developing diabetes mellitus. However, a head to head comparison between these two medications is not available. The objective of our study is to compare the risk of developing type II diabetes with the use of olanzapine vs. clozapine. METHODS: The study was a retrospective, longitudinal cohort analysis using 2001 Georgia Medicaid claims data. Patients who had psychosis (ICD-CM-9: 290.xx–299.xx) and had received at least one prescription of olanzapine or clozapine from March through November were identified. The two study groups were defined as patients who initiated new treatment episodes of olanzapine and clozapine after a 60 days window free of these medications. Patients who received diabetes diagnosis (ICD-CM-9: 250.x0–250.x2) or antidiabetic prescriptions 60 days prior and 30 days post the index date (the date of treatment initiation) were regarded as having pre-existing diabetes and excluded from the study. Logistic regression analysis was employed to assess the association between newly developed diabetes mellitus and the use of antipsychotics. Confounders such as age, gender, race, treatment duration, use of other antipsychotics, use of beta blockers and thiazide diuretics were included in the final model. RESULT: Out of 18,373 patients with an antipsychotic prescription in 2001, 4934 patients were olanzapine users and 376 patients were clozapine users. The incidence rate of type 2 diabetes was 1.05% among olanzapine users and 0.21% among clozapine users. After controlling the confounders, it was found that the risk of developing type 2 diabetes was significantly less for olanzapine users as compared to clozapine users (OR = 3.46 [CI 0.18–0.67]). CONCLUSION: Patients taking olanzapine are associated with greater risk of developing type II diabetes as compared to patients taking clozapine.

PMH14

ANALYSIS OF POTENTIAL DRUG-DRUG INTERACTION PAIRS ASSOCIATED WITH ANTIPSYCHOTICS AMONG MEDICAID PATIENTS WITH SCHIZOPHRENIA OR BIPOLAR DISORDER

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OBJECTIVE: Since many antipsychotics are metabolized by cytochrome P450 (CYP450) isoenzymes (1A2, 2D6, and 3A4), we proposed to assess the risk of receiving potential drug-drug interaction (DDI) pairs associated with the inhibition or induction of CYP450 isoenzymes. METHODS: Using the Ohio Medicaid claims database from January 1, 2001 to December 31, 2003, a total of 44,511 patients (18 ≤ age ≤ 65) with a schizophrenia or bipolar disorder diagnosis and receiving at least one study antipsychotic were selected for this study. Any clinically significant (moderate or severe) DDI pair was defined to have concomitant exposure if any of the days supply for an antipsychotic prescription overlapped with the days supply of an interacting medication by at least one day. Patients with schizophrenia and bipolar disorder were analyzed separately. Multivariable logistic regression analysis was used to assess risk factors associated with the receipt of a potential DDI pair. RESULTS: Of the 44,511 study patients, potential DDI pairs were received by 12.1% (11.9% in schizophrenia, 12.9% in schizoaffective, and 11.8% in bipolar sub-cohorts) as same-day prescriptions dispensed and by 24.5% (24.7% in schizophrenia, 26.5% in schizoaffective, and 24.5% in bipolar sub-cohorts) as prescriptions with at least a one-day overlap. The most frequent DDI pairs were observed with olanzapine (45.0%), risperidone (23.5%), and quetiapine (13.4%). A higher risk of receiving a potential DDI pair was associated with being Caucasian (odds ratio [OR] = 1.27, 95% confidence interval [CI]: 1.21–1.34), treatment duration over 12 months (OR = 1.13, 95% CI: 1.07–1.19), depression (OR = 1.20, 95% CI: 1.14–1.27), impulse control disorder (OR = 1.53, 95% CI: 1.30–1.79), diabetes mellitus (OR = 1.12, 95% CI: 1.05–1.20), cerebrovascular disease (OR = 1.34, 95% CI: 1.13–1.59). CONCLUSION: The potential drug-drug interactions should be considered when treating patients with some antipsychotics, especially during the long-term maintenance use. Patients with key psychiatric and medical co-morbidities had a higher risk of receiving potential DDI pairs.

PMH16

METABOLIC SAFETY AND TOLERABILITY OF ZIPRASIDONE VS. OLANZAPINE IN SCHIZOPHRENIA PATIENTS: SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVE: There is growing awareness of the increased prevalence of metabolic abnormalities in patients with schizophrenia. Thus, the safety and tolerability of atypical antipsychotic (AAP) medications are important considerations in the choice of agents to treat severe mental illness. In a systematic review of the published literature on AAPs, we explored differences in metabolic effects between ziprasidone and olanzapine. METHODS: We identified 300 published studies of AAPs in schizophrenia, including head-to-head, placebo-controlled trials and observational studies. A meta-analysis was performed on the safety and tolerability of ziprasidone and olanzapine in areas with sufficient data (i.e., at least three studies for each outcome). Studies were included in meta-analyses if they provided sample size, mean change, and measure of variance, or if they reported data to allow for imputation of these values. We considered changes in total cholesterol, triglycerides, body weight, QTc interval, and discontinuation due to adverse events. RESULTS: Of 13 publications reporting a head-to-head comparison of ziprasidone vs. olanzapine, four provided data useful for pooled analyses. When compared to ziprasidone, olanzapine use was associated with increased total cholesterol (mean difference 20.0 mg/dL [95% CI 9.8 mg/dL, 30.2 mg/dL]), triglycerides (mean difference 66.6 mg/dL [95% CI 43.6 mg/dL, 89.7 mg/dL]), and body weight (mean difference 4.97 kg [95% CI 4.1 kg, 5.8 kg]). Mean daily doses ranged from 112.8 mg to 135.2 mg (ziprasidone) and from 12.6 mg to 20.5 mg (olanzapine). Mean changes in the QTc interval and rates of discontinuation due to adverse events were similar for ziprasidone vs. olanzapine (studies not pooled). Limitations of the study included heterogeneity across the head-to-head trials: study durations ranged from 6 to 18 months. CONCLUSION: These results point to clinically important and statistically significant advantages for ziprasidone in metabolic safety compared with olanzapine. Ziprasidone’s effect on the QTc interval and tolerability are similar to olanzapine.