Abstracts

POTENTIAL DRUG-DRUG INTERACTIONS WITH RISPERIDONE AND THE RISK OF DISCONTINUATION: A RETROSPECTIVE ANALYSIS OF PATIENTS IN QUEBEC, CANADA
Ishak K1, Glass R2, Tan Y1, Luong D1, Caro JJ3
1United BioSource Corporation, Montreal, QC, Canada, 2Janssen-Ortho Inc, Toronto, ON, Canada, 3United BioSource Corporation, Concord, MA, USA
OBJECTIVES: Polypharmacy is very common in patients with schizophrenia. Risperidone is a commonly used antipsychotic that is metabolized primarily by CYP2D6 and CYP3A4 in the liver. There is a risk of drug-drug interactions with medications that inhibit or induce these enzymes, which may affect clinical outcomes in schizophrenic patients. This study aims to explore and quantify the association between exposure to inhibitors and/or inducers of CYP3A4 and CYP2D6 and the risk of discontinuation of risperidone in patients with schizophrenia.
METHODS: A nested case-control study was conducted using administrative claims data. Patients were 16-years or older with a diagnosis of schizophrenia and at least two successive claims for risperidone. Cases were patients that discontinued risperidone. Ten controls were randomly chosen for each case, matching on time on treatment. For each case-control set, exposure was defined as use of an inhibitor or inducer in the one-month, three months and six months prior to the case time. The association between exposure and the risk of discontinuation of risperidone was measured using conditional logistic regression models.
RESULTS: The base cohort included 20,840 patients and 10,913 cases were identified. Exposure to inhibitors was associated with an increased risk of discontinuation in the three- and six-month exposure windows (OR: 1.10 (1.06–1.14) and 1.11 (1.07–1.15), respectively). The association was stronger for exposures occurring when patients were new to treatment with risperidone. For instance, the OR for exposure to an inhibitor in the last three months was 1.16 (1.00–1.33) during the first month of treatment compared with 1.09 (1.00–1.19) by six months of treatment.
CONCLUSION: Co-medication with an inhibitor of CYP2D6 or CYP3A4 is associated with a greater risk of discontinuation of risperidone, which may have negative implications for clinical outcomes in schizophrenia.

COSTS AND OUTCOMES OF ATYPICAL ANTIPSYCHOTICS FOR THE TREATMENT OF ACUTE SCHIZOPHRENIA
Leeuwenkamp O1, Morlock R2, Bell CP2, Brogan A1, Mauskopf J1
1NV Organon, Molenstraat, Oss, The Netherlands, 2Pfizer Inc, Ann Arbor, MI, USA, 3GlaxoSmithKline, Memphis, TN, USA, 4RTI Health Solutions, Research Triangle Park, NC, USA
OBJECTIVES: To estimate costs and outcomes associated with atypical antipsychotic treatment and switching patterns in patients with schizophrenia. METHODS: We developed a Markov model that includes five health states defined by scores on the Positive And Negative Syndrome Scale (PANSS): acute episode, persistent negative symptoms, response state, fourth-line therapy (clozapine), and death. Following two unsuccessful medication switches, patients transitioned to the clozapine health state. Utility weights for each health state were determined from a published utility assessment based on PANSS. The model accounts for adherence and discontinuation, relapse of symptoms, and adverse events, and uses the Framingham risk equation to account for metabolic and cardiovascular effects. Unit health care costs were determined from standard US data sources. Key model outputs included inpatient and outpatient resource use and costs, costs related to cardiovascular and metabolic complications, and relapse rates and associated costs. We compared time and cost in each health state for two antipsychotic regimens: 1) initiating therapy with a first-generation atypical antipsychotic and switching as needed to a second-generation agent, and 2) initiating therapy with a second-generation agent and switching as needed to a first-generation agent.
RESULTS: Initiating therapy with a second-generation atypical antipsychotic (vs the opposite strategy) reduced time in the acute episode state (12.2 vs. 12.8 weeks) and increased time in the response state (22.1 vs. 19.8 weeks) at one year. This scenario was associated with lower annual total nondrug medical costs in the acute health state ($32,185 vs. $33,193) and lower total nondrug costs in all states ($43,061 vs. $44,280).
CONCLUSION: Initiating therapy with a second-generation atypical antipsychotic was associated with more time without symptoms than was seen when therapy was initiated with a first-generation agent, and lower nondrug costs during the first year of treatment.

THE IMPACT OF CHANGES IN ANTIDEPRESSANT DRUG TREATMENT IN ELDERLY NURSING HOME (NH) PATIENTS—AREAS OF POTENTIAL CARE DETERIORATION DUE TO FORMULARY POLICIES: RESULTS FROM A PILOT STUDY
Elder PH1, Fridman M2, Tourkodimutris S1
1Forest Research Institute, Jersey City, NJ, USA, 2AMF Consulting, Inc, Los Angeles, CA, USA
OBJECTIVES: To identify common factors in behavior and symptom changes and to evaluate the impact of switching from escitalopram to generic SSRIs on these factors, using data on elderly patients in NH treated for depression. METHODS: A retrospective chart review was conducted by an independent contractor of patients who received escitalopram for at least 30 days (baseline period). Follow-up period was the following consecutive 60 days. The no-switch (NSW) group received continuous escitalopram treatment for 90 days while the switch (SW) group was switched to generic SSRIs after 30 days due to formulary policies. Data on co-morbidities, behavior problems, symptoms, concomitant medications, and resource use was collected. Changes from baseline were coded as ‘No change’ (0), ‘Condition resolved’ (1), and ‘Condition at follow-up not present at baseline’ (2). Factor analysis was used to identify common factors for changes in 19 behavior problems and 17 symptoms. Factor-based scores were calculated for each patient and compared between the two groups with a non-parametric Wilcoxon two-sample rank-sum test. Items not included in factors were also compared. No adjustment for multiple comparisons was performed. RESULTS: A total of 432 charts were reviewed (NSW = 244; SW = 188). Mean time on escitalopram was 337 days for the NSW group and 290 for the SW group; mean age was 82 and 80 years respectively. Two behavior problem factors characterizing disruptive behavior and mental problems, and two symptom factors characterizing abdominal and physical discomfort were found to be significantly worse for the SW group (two-sided p-value < 0.05). The SW group also had an increase in concomitant medication use. CONCLUSION: This study suggests that formulary decisions to alter drug administration for non-medical reasons in elderly NH patients who receive stable escitalopram treatment may result in reduced quality of care (increase in behavior problems and symptoms), and an increase in the use of non antidepressant medications.