

were cited by less than 10% of patients, with Tolerability being the lowest (0.93%).

Of the 58 people who participated in the second question, 72.4% agreed to accept the depot injection if indicated. Male patients were more likely to accept depot medication than female patients (75% vs. 69%).

This survey suggests that despite patient choice being promoted by user groups and government policy, many patients are still motivated to heed their doctor's advice. This may be particularly relevant when prescribing depot medications as shown by the number of patients willing to accept injections.

## P0299

Atypical antipsychotics and their metabolic impact on psychiatrically hospitalized children and adolescents

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**Objective:** Atypical antipsychotic use in youth has increased. Adverse metabolic effects on weight, lipids, and glucose are evident in adults, but inadequately studied in youth. This report focuses on the metabolic effects of these agents in psychiatrically hospitalized youth.

**Methods:** Inpatient subjects were assessed at admission, 3 weeks, and discharge. Weight, body mass index, blood pressure, fasting glucose levels, high and low density lipoproteins (HDL and LDL, respectively), and triglycerides were measured.

**Results:** N=112 subjects, diagnosed as: Affective Disorders (26.4%), Disruptive Behavior Disorders (32.6%), Pervasive Development Disorders (9.3%), Psychotic Disorders (5.4%), and Others (26.3%). Ages ranged from 4-17 years. Patients received: risperidone (N=41), olanzapine (N=13), quetiapine (N= 15), aripiprazole (N=22), while 34 patients received no medication. Average length of hospital stay (LOS) was 55.9 days (1-289). For the sample as a whole, trends of statistical differences were noted in weight at the time of discharge (+3.79 lbs). Weight gain at discharge was significantly correlated with only olanzapine ( $r=.553$ ,  $p<0.0001$ ), multiple regression analysis controlling for LOS is also significant (Beta .558,  $p < 0.0001$ ) for olanzapine. For the medication treated group, statistically significant increases in HDL are noted at three weeks (+ 5 mgs/dl,  $p = 0.023$ ); at discharge the difference was not significant. A similar trend was observed for glucose. There was a statistical trend for decrease in triglycerides at 3 weeks (15 mg/dl,  $p = 0.054$ ), discharge difference was non-significant (-9 mg/dl).

**Conclusion:** Certain agents may carry greater propensity for inducing certain metabolic changes, but further study is required.

## P0300

Second generation antipsychotic medications induce type 2 diabetes like syndrome by increasing hepatic glucose output and subsequently insulin secretion: Implications for mechanism of drug action

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Second generation antipsychotic drugs used to treat schizophrenia have been reported to induce weight gain and a Type-2 diabetes like syndrome in humans. Evidence indicates that these drugs induce this syndrome by promoting insulin resistance in peripheral tissues. However, supra-physiological levels of the drugs are required to cause this insulin resistance in model systems. Here we have investigated the effects of therapeutically relevant levels of 3 different antipsychotic medications (Haloperidol, Quetiapine and Clozapine) on glucose metabolism. We find that at these concentrations antipsychotic drugs do induce impaired glucose tolerance in rats which is associated with increased insulin secretion, but independent of weight gain (Clozapine>Quetiapine>Haloperidol). However, activation of Akt/PKB is normal and at these levels of drug there was no major effect on insulin action in fat cells. This suggested that the drugs were not inducing insulin resistance per se. Instead we show that the drugs stimulated hepatic glucose production, and the effect is at least in part mediated by a stimulation of glucagon secretion. We also find that the increased glucose production is responsible for increased insulin secretion and that blocking insulin secretion attenuates the activation of the enzyme Akt/protein kinase B in the hippocampus. This data provides new information on the mechanisms by which second generation antipsychotic drugs regulate glucose metabolism. Thus, the glucose production and the subsequent insulin release may form part of the therapeutic actions of the drugs by acting to restore defective Akt/PKB signalling that is associated with schizophrenia.

## P0301

First- vs Second-generation antipsychotics in psychotic disorders: Efficacy and tolerability issues

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**Objective:** To compare the efficacy and tolerability of first- and second-generation antipsychotics (FGAs & SGAs, respectively) in the treatment of psychotic disorders.

**Methods:** PANSS scale was employed to measure disease severity and the efficacy of treatment. In all participants PANSS score was calculated on admission, before releasing the patient, and in case of any change in antipsychotic treatment schedule. Demographic data and comprehensive information on psychotropic medication status were collected for all patients.

**Results:** 377 patients (51.5% males) admitted to the Department of Old Age Psychiatry and Psychotic Disorders, Medical University of Lodz, have been recruited for the study. Eighty two percent of participants were suffering from schizophrenia. The average improvement in PANSS score amounted to 22,85%. The demographic and clinical characteristics of patients being prescribed FGA or SGA were comparable. No statistically significant differences in the efficacy of FGAs vs SGAs, as well as mono- vs polytherapy were observed. SGAs were better tolerated than FGAs. A higher initial severity of symptoms was the only predictor of a major, over 40% improvement in PANSS score. FGA and SGA therapies proved equally effective in generating such substantial decreases in symptoms' severity.

**Conclusions:** In our sample, the efficacy of FGAs and SGAs in the treatment of psychotic disorders was comparable. The tolerance of SGA therapy was better than for FGAs. Therapeutic success seems to be more dependent on adequate dosage than the class of an antipsychotic agent.