

**Objectives:** The HISTORI Trial aims to reduce risk of developing diabetes and cardiovascular disease in people with schizophrenia, prediabetes and overweight and to investigate for an indirect effect of Semaglutide on psychotic symptoms and quality of life through a weight loss.

**Methods:** A 30 weeks randomized, placebo-controlled, double-blinded study with once-weekly injections of Semaglutide 1.0 mg. Primary inclusion criteria are age 18-40 years, schizophrenia, prediabetes, overweight and treatment with antipsychotics. Questionnaires and interviews regarding psychotic symptoms, quality of life, medication adherence and physical activity will be applied either monthly or every third month.

**Results:** will not be ready for the congress. A poster outlining the feasibility challenges will be presented.

**Conclusions:** Perspective: Through weight loss, Semaglutide may indirectly be able to improve quality of life, medication adherence and psychotic symptoms.

**Disclosure:** No significant relationships.

**Keywords:** schizofrenia; Prediabetes; Glucagon-Like Peptide 1; Positive and negative symptoms (PANSS)

## EPV1440

### Successful Treatment with Lurasidone of First-Episode Psychosis in Down Syndrome: Case Report and Literature Review

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**Introduction:** Co-morbid psychiatric disorders are common in Down syndrome (DS). Evidence is limited for pharmacotherapy, specifically antipsychotics, for psychiatric co-morbidity in DS.

**Objectives:** To describe a case of a patient with DS who developed a first-episode psychosis (FEP) and who responded to lurasidone in monotherapy and to review recent literature on the treatment of psychosis in patients with DS.

**Methods:** (1) Case report: FEP in DS patient treated with lurasidone 37 mg/day. (2) Narrative review on the treatment of psychosis in DS patients through PubMed database (1990-2020). Key terms: “psychosis”, “Down Syndrome”, “pharmacological treatment”, “antipsychotic drugs”.

**Results:** A 21-year-old woman with DS, without psychiatric history, presenting with behavioural anomalies, aggressiveness, soliloquies, and unmotivated laughs was referred to our outpatient clinic by her general practitioner. Symptoms began one year prior and progressively worsened, impairing her daily functionality. Previous blood workup was normal. She was diagnosed with FEP and began treatment with lurasidone 37 mg. At 4-week follow-up, she showed total remission of the psychotic symptoms, had no tolerability complaints, and returned to baseline functionality levels. Discussion: No reports of lurasidone use in psychosis in DS have been published. To treat psychotic symptoms in DS, most literature reports describe the use of typical antipsychotics, which are usually effective, but often poorly tolerated; atypical antipsychotics such as risperidone and aripiprazole have also been used.

**Conclusions:** Lurasidone may be a useful option in patients with FEP in DS. Further research is warranted on treatment of psychosis in this population.

**Disclosure:** No significant relationships.

**Keywords:** antipsychotic drugs; Down syndrome; Psychosis; pharmacological treatment

## EPV1443

### Pharmacogenetic testing in schizophrenia in real clinical practice: before or after antipsychotic -induced adverse drug reactions development?

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**Introduction:** Schizophrenia is socially significant mental disorder characterized by early onset and high time and financial expenditure on treatment. Antipsychotics (APs) are highly effective against positive and negative symptoms, but at same time have a wide range of adverse drug reactions (ADRs). APs efficiency and safety are variable and depend on characteristics of genetically determined mechanisms (transportation, biotransformation, and elimination).

**Objectives:** Investigation role of pharmacogenetic testing (PhGT) on example of clinical case of severe ADRs in 47-year-old woman with schizophrenia.

**Methods:** Patient’s medical history analysis; clinical observation; biochemical serum analysis; therapeutic drug monitoring; PhGT.

**Results:** The clinical case of a woman with schizophrenia who has been noted to be unresponsive to APs for some years after schizophrenia onset. She was found to be homozygous for nonfunctional SNVs CYP2D6\*4 and CYP2C9\*2, heterozygous for CYP1A1\*2A, which was reason for complete shutdown of isoenzymes 2D6, 2C9 and 1A1 activity and development of ADRs in use of initial doses of several APs, as well as for an increase in severity of ADRs with schizophrenia positive symptoms aggravation with an even slower titration of APs daily dose not only with polytherapy, but also with monotherapy. So, not recommended APs for patient: aripiprazole, haloperidol, zuclopenthixol, cariprazine, quetiapine, paliperidone, risperidone, thioridazine, sertindole, asenapine, alimemazine, chlorpromazine, etc. (CYP2D6); haloperidol, clozapine, olanzapine, perphenazine, promazine (CYP2C9); carefully: haloperidol, olanzapine, perospirone (CYP1A1).

**Conclusions:** This rare case demonstrates PhGT importance before APs therapy, because the patient had very high risk AP – induced ADRs. She needed PhGT before APs use, but not after severe ADRs during 12 years.

**Disclosure:** No significant relationships.

**Keywords:** schizofrenia; pharmacogenetic testing; Adverse reactions; therapeutic resistance