

## O0116

**Predicting treatment resistance in people with a first-episode of psychosis using commonly recorded clinical information**

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**Introduction:** 23% of people experiencing a first episode of psychosis (FEP) develop treatment resistant schizophrenia (TRS). At present, there are no established methods to accurately identify who will develop TRS from baseline.

**Objectives:** In this study we used patient data from three UK early intervention services (EIS) to investigate the predictive potential of routinely recorded sociodemographic, lifestyle and biological data at FEP baseline for the risk of TRS up to six years later.

**Methods:** We developed two risk prediction algorithms to predict the risk of TRS at 2-8 years from FEP onset using commonly recorded information at baseline. Using the forced-entry method, we created a model including age, sex, ethnicity, triglycerides, alkaline phosphatase levels and lymphocyte counts. We also produced a machine-learning-based model, including an additional four variables. The models were developed using data from two and externally validated in another UK psychosis EIS.

**Results:** The development samples included 785 patients, and 1,110 were included in the validation sample. The models discriminated TRS well at internal validation (forced-entry: C 0.70, 95%CI 0.63-0.76; LASSO: C 0.69, 95%CI 0.63-0.77). At external validation, discrimination performance attenuated (forced-entry: C 0.63, 0.58-0.69; LASSO: C 0.64, 0.58-0.69) but recovered for the forced entry model after recalibration and revision of the lymphocyte predictor (C: 0.67, 0.62-0.73).

**Conclusions:** The use of commonly recorded clinical information including biomarkers taken at FEP onset could help to predict TRS. These measures should be considered in future studies modelling psychiatric outcomes.

**Disclosure:** No significant relationships.

**Keywords:** treatment resistant schizophrenia; biomarkers; First Episode Psychosis; risk prediction

## O0115

**Predictors of functioning at clinical high-risk for psychosis**

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**Introduction:** In addition to the psychosis onset, patients at clinical high-risk (CHR) show a decrease of functioning. This may not be

related to the degree and persistence of the attenuated positive symptom (APS). Other clinical factors also predict the level of remission.

**Objectives:** Revealing the predictors of the functioning in the 5-year follow-up in patients at CHR.

**Methods:** 124 young depressive patients at CHR were examined. Depression symptoms were assessed on the HDRS scale, and the CHR symptoms were assessed on the SOPS scale. The follow-up examination was conducted after 5 years with the determination of functioning on the PSP scale. A correlative analysis of the predictors of the level of remission was conducted.

**Results:** The functioning level was inversely related to the length of a depressive episode with the CHR symptoms ( $r = -0.432$ ,  $p < 0.05$ ), to the negative sub-scale SOPS score ( $r = 0.312$ ,  $p < 0.05$ ) and to the symptoms of disorganization sub-scale SOPS score ( $r = 0.246$ ,  $p < 0.05$ ) in the primary assessment. Insufficient reduction of the positive, negative symptoms and symptoms of disorganization on the SOPS during in-patient treatment was also a predictor of the worst outcome at the 5-year follow-up ( $r = -0.206$ ,  $p < 0.05$ ;  $r = -0.309$ ,  $p < 0.05$ ;  $r = -0.355$ ,  $p < 0.05$ , and  $r = -0.349$ ,  $p < 0.05$ , respectively).

**Conclusions:** There are some factors, except the severity of APS, that may be considered as the predictors of functioning level in patients at CHR.

**Disclosure:** No significant relationships.

**Keywords:** Clinical high-risk; predictors of functioning level; Attenuated positive symptoms; Attenuated negative symptoms

## O0116

**The relationship between the recognition of specific basic emotions and negative symptom domains in patients with schizophrenia spectrum disorders**

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**Introduction:** Current research suggests emotion recognition to be significantly impaired in individuals with schizophrenia spectrum disorders (SSD), whereby negative symptoms are theorised to play a crucial role. Emotion recognition deficits are assumed to be predictors of transition from clinical high risk to schizophrenia. So far, little attention has been given hereby to the subdomains of negative symptoms and recognizing the individual basic emotions.

**Objectives:** Our study aimed to explore the relationship between the recognition of the basic emotions and each negative symptom domain.

**Methods:** 66 patients with a SSD diagnosis were recruited at the Charité - Universitätsmedizin Berlin. Correlational and regression analyses to control for the covariates (age, education, sex) were conducted between the recognition of the six basic emotions (anger, disgust, fear, happiness, sadness, surprise) using the Emotion Recognition Task of the Cambridge Neuropsychological Test

Automated Battery (CANTAB) and the seven different subdomains of negative symptoms of the Positive and Negative Syndrome Scale (PANSS).

**Results:** revealed significantly negative correlations of blunted affect with the recognition of happiness, fear, and disgust. Difficulties in abstract thinking, also correlated positively with the recognition of fear. Additionally, we found a significant positive correlation between stereotyped thinking and difficulties in abstract thinking with the response latency in emotion recognition.

**Conclusions:** Individuals with SSD and domains of negative symptoms showed specific impairments in recognizing the representation of basic emotions. A longitudinal design to make causality statements would be useful for future research. Moreover, emotion recognition should be considered for early detection and individualized treatment.

**Disclosure:** No significant relationships.

**Keywords:** schizophrenia; Emotion recognition; negative symptoms; Psychosis

### O0117

#### Clinical features of UK Biobank subjects carrying loss of function variants in genes implicated in schizophrenia pathogenesis

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**Introduction:** The SCHEMA consortium has identified ten genes in which severely damaging variants substantially increase schizophrenia risk.

**Objectives:** To characterise the clinical features of carriers of variants causing complete loss of function (LOF) of these genes.

**Methods:** This research was conducted using the UK Biobank Resource and 200,000 exome-sequenced volunteers were screened to identify carriers of LOF variants in these genes. For these subjects, data fields were extracted which reflected educational and occupational functioning as well as clinical features including diagnoses and medication.

**Results:** LOF variants in *CACNA1G* were commoner than in SCHEMA cases, suggesting this was not a real schizophrenia susceptibility gene. 159 subjects carried LOF variants in one of the other nine genes and overall they did not have poorer educational or occupational functioning or increased mental or physical health problems. Detailed examination revealed that one had schizophrenia, one had psychotic depression and two had a developmental disorder. Otherwise, a number of subjects had features of minor mental illness such as depression or anxiety and these rates were somewhat increased in subjects carrying LOF variants in *HERC1*, of whom more than half reported having consulted their GP for such problems. However the majority appeared to be entirely normal from a neuropsychiatric point of view.

**Conclusions:** Although particular genetic variants can substantially increase the risk of schizophrenia, most people carrying them are entirely normal. This further supports the concept of schizophrenia as a distinct illness rather than representing the extreme of a trait which is present in the population.

**Disclosure:** No significant relationships.

**Keywords:** loss of function variant; SETD1A; HERC1

### O0119

#### Modified Completion Test (MCT) in Psychological Diagnostics of Patients with Paranoid Schizophrenia — Stage of Filling the Gaps

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**Introduction:** The study demonstrates potential of the modified completion test (MCT) (text by H. Ebbinghaus) for diagnostics of patients with schizophrenia. MCT includes four stages: 1) filling the gaps in the story; 2) reading and retelling; 3) making up a continuation and a title; 4) retelling the story and its continuation after half an hour (Burlakova,2020).

**Objectives:** The objective was to research diagnostical potential of the first stage of MCT for patients suffering from paranoid schizophrenia with hallucinatory syndrome.

**Methods:** The study included 42 patients (28 female, 14 male) with schizophrenia (disease onset at least 5–7 years ago), aged from 19 to 51 (average age  $35 \pm 8$ ), receiving treatment. Control group consisted of 44 people (average age  $37 \pm 6$ ), never sought psychiatric help, never diagnosed with any mental disorders. Groups were organized to be equal in gender proportions, age, and educational level.

**Results:** The psychiatric patients in comparison to the control group: 1) accomplished the task slower; 2) although instructed to fill the gaps in succession, often violated the instruction and demonstrated orientation on specific fragments rather than on the whole; 3) had lower efficiency: ~5% of the clinical group did the task without mistakes; 4) chose strategies of interacting with the text not detected in the control group: a) did not fill several gaps, b) added words outside the gaps, and c) crossed out fragments of the text; 5) filled the gaps with words inadequate emotionally, semantically and/or logically.

**Conclusions:** Comparative analysis demonstrated that already on the first stage, the method proves informative in pathopsychological assessment.

**Disclosure:** No significant relationships.

**Keywords:** thought disorder; cognitive assessment; schizophrenia; cognitive functions

### O0120

#### A family study on first episode of psychosis patients: exploring neuropsychological performance as an endophenotype

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