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between subgroups with and without autistic traits with logistic regression analysis.

Results: 248 patients with PIT were included (age 15.69  $\pm$  1.86 years, 38.65% female). The prevalence of autistic traits in EOP was 7.04%, with significantly higher prevalence in the group of patients with non-affective psychosis (15.20%) than in other diagnostic groups. PAUSS scores significantly decreased over time, with no significant differences in the trajectories of the total PAUSS and its subscores among the three diagnostic subgroups during the 2-year follow-up. The PAUSS showed good internal consistency at all visits (Cronbach's alpha > 0,88). Patients with autistic traits presented longer duration of untreated psychosis, longer duration of the first inpatient admission, poorer social adjustment in childhood, poorer functionality, greater clinical severity, and poorer response to treatment during follow-up than patients without autistic traits.

**Conclusions:** The PAUSS is an easy-to-apply tool that can be useful to differentiate psychosis subgroups with worse prognosis.

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### **EPP0659**

# Biological subtyping of schizophrenia and relationship with clinical features: a neuroimaging study

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**Introduction:** The heterogeneity of schizophrenia (SCZ) regarding clinical features including symptomatology, disease course and their inter-relationships with underlying biological substrates remain incompletely understood.

**Objectives:** In a bid to reduce illness heterogeneity using biological substrates, our study aimed to employ brain neurostructural measures for subtyping SCZ patients, and evaluate each subtype's relationship with clinical features such as illness duration, psychotic psychopathology, and deficit status.

Methods: We recruited 240 subjects (160 SCZ patients, 80 healthy controls) for this study. All participants underwent brain structural magnetic resonance imaging scans and clinical assessments using the Positive and Negative Syndrome Scale. Biological subtypes of SCZ were identified using "Heterogeneity through discriminative analysis" (HYDRA), a clustering technique which accounted for

relevant covariates and the inter-group normalized percentage changes in brain volume were also calculated.

Results: We found two neuroanatomical subtypes (SG-1 and SG-2) which were found amongst our patients with SCZ. The subtype SG-1 was associated with enlargements in the third and lateral ventricles, volume increase in the basal ganglia (putamen, caudate, pallidum), longer illness duration, and deficit status. The subtype SG-2 was associated with reductions of cortical and subcortical structures (hippocampus, thalamus, basal ganglia).

**Conclusions:** These findings have clinical implications in the early intervention, response monitoring, and prognostication of SCZ. Future studies may adopt a multi-modal neuroimaging approach to enhance insights into the neurobiological composition of relevant subtypes.

Disclosure of Interest: None Declared

### **EPP0660**

### Identifying early signs of Treatment Resistance in First Episode Psychosis to revise and aid further treatment

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**Introduction:** Approximately 1/3 of patients with first episode psychosis (FEP) will not benefit from antipsychotic medications and are considered treatment resistant (TR). TR is currently defined as sustained lack of remission with functional loss in the context of two adequate trials of different antipsychotics. Studies suggest that early initiation of clozapine treatment support a better course of illness in TR. Most treatment guidelines recommend clozapine after two antipsychotic failures. In practice, increased dosages of other antipsychotics or polypharmacy are tried out first. Identifying early signs of TR and revising treatment is thus important. Since the TR definition requires adequate lengths of treatment attempts, they are difficult to apply in FEP.

**Objectives:** The aim of the current study is to 1) investigate if a shorter observation period can be used to identify subgroups of FEP patients with early signs of TR (no indication of early clinical recovery - NoECR) and 2) investigate differences in antipsychotic treatments over the first year compared to patients in full or partial early recovery (ECR/ partial ECR).

**Methods:** Participants 18 to 65 years in their first year of treatment were recruited from major hospitals in Oslo. The participants met the DSM-IV criteria for schizophrenia, schizophreniform disorder, schizoaffective disorder, and psychotic disorder NOS. A total of 387 completed baseline clinical assessments and 207 one-year follow-up. The SCID-I for DSM-IV was used for diagnosis, symptoms were measured with the SCI-PANSS. Treatment history was gathered through interviews and medical charts. No-ECR was defined as a) Not meeting remission criteria for at least 12 weeks at follow-up, and b) Not regained functioning, i.e., a GFS score < 60. ECR was defined as a) Meeting the criteria for remission and b)

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Regained functioning, i.e., a GFS score >=61. Partial ECR did not meet these criteria.

**Results:** At one year follow-up, 47% met the criteria for no-ECR, 29% the criteria for ECR and 24% the criteria for partial ECR. Baseline predictors of the no-ECR group corresponded to previously identified predictors of long-term TR. Only 35 (17%) participants met the full criteria for TR at this point. Of the 97 in the no-ECR group, 18 (19%) were in an ongoing trial (p<0.001 vs ECR/partial ECR) and 21 (22%) were using the same medication over the whole follow-up year (p = .008 vs ECR /partial ECR) despite lack of significant clinical effect.

Conclusions: We show that the mostly used consensus definition of TR identifies only a proportion of FEP patients without sufficient clinical and functional improvement at one year follow-up. The main reason for not meeting the criteria is a lack of two adequate antipsychotic trials at this point of time. However, only half of these were in an ongoing trial despite recommendations in clinical guidelines.

Disclosure of Interest: None Declared

#### **EPP0661**

Examining the association between exposome score for schizophrenia and cognition in schizophrenia, siblings, and healthy controls: Findings from the EUGEI study

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**Introduction:** Schizophrenia spectrum disorders (SSD) are frequently associated with disturbances in both neurocognition and social cognition. The patoetiology of SSD derives from a complex interaction between genes and environment. Exposome score for schizophrenia (ES-SCZ) is a cumulative environmental exposure score for schizophrenia which have shown potential utility in risk stratification and outcome prediction.

**Objectives:** To investigate whether ES-SCZ is associated with cognition in patients with SSD, unaffected siblings, and healthy controls

**Methods:** The present cross-sectional study included 1141 patients with SSD, 1332 unaffected siblings, and 1495 healthy controls, recruited in the Netherlands, Spain, Serbia, and Turkey. The Wechsler Adult Intelligence Scale (WAIS) was used to evaluate neurocognition, while the Degraded Facial Emotion Recognition (DFAR) task was used to assess social cognition. ES-SCZ was calculated based on our previously validated method. Associations between ES-SCZ and cognitive domains were analyzed by applying

regression models in each group (patients, siblings, and controls), adjusted by age, sex, and country.

**Results:** According to our preliminary analyses, no significant associations were found between ES-SCZ and cognition in patients with SSD. ES-SCZ was negatively associated with WAIS in unaffected siblings (B=-0.40, p=0.03) and controls (B=-0.63, p=0.004) and positively associated with DFAR in siblings (B=0.83, p=0.004). No significant association between ES-SCZ and DFAR was found in healthy controls.

Conclusions: Our findings show that neurocognition and social cognition are oppositely associated with ES-SCZ. Longitudinal studies may clarify whether there is a cause-effect relationship between ES-SCZ and cognition. Further research should investigate whether ES-SCZ interacts with molecular genetic risk for schizophrenia to improve clinical chcracterization and outcome prediction in people with SSD.

Disclosure of Interest: None Declared

### **EPP0662**

## Night-time/daytime Protein S100B serum levels in paranoid schizophrenic patients

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**Introduction:** S100B is a calcium-binding astrocyte-specific cytokine, that is considered a biomarker of neurodegeneration; which may be involved in the imbalance of the inflammatory response observed in several brain disorders, including major depression and schizophrenia. Two meta-analyses have reported higher serum levels of S100B in patients with schizophrenia respect to healthy controls.

Different studies have described circadian and seasonal variations of biological variables, such as melatonin or cortisol. It has been reported that there is not circadian rhythm of S100B blood levels in healthy subjects. However, it is not known whether there are circadian oscillations in S100B blood concentrations in patients with schizophrenia.

**Objectives:** The aim of this study is to describe S100B serum levels in patients with schizophrenia and to analyse whether they follow a circadian rhythm.

**Methods:** Our sample consists in 47 patients in acute phase and stabilized status. Blood samples were collected at 12:00 and 00:00 hours by venipuncture. Serum levels of Protein S100B were measured three times: at admission, discharge and three months after discharge. Protein S100B was measured by means of ELISA (Enzyme-linked immunosorbent assay) techniques.