

- 2) To assess group and subject-specific trajectories of depressive symptom severity and neurocognitive performance during the acute ECT course and up to 3 months post-treatment.

**Methods:** This multi-center double-blind RCT includes adult patients with a uni- or bipolar depression. In case of non-response (<50% decrease of IDS-CR score (Inventory of Depressive Symptomatology-Clinician Rated)) after 4 sessions of brief-pulse high-dose RUL ECT, patients are randomized to either continue RUL ECT, or switch to brief-pulse moderate dose BT ECT until remission. Depressive symptoms are assessed by IDS-CR, Psychotic Depression Assessment Scale (PDAS) and CORE assessment of psychomotor change. An extensive neuropsychological test battery is used to assess different domains of cognitive functioning, e.g., autobiographical memory using the Columbia University- Autobiographical Memory Interview Short- Form (CU-AMI-SF)(Fig 3).

**Results:** Our hypotheses are: (1) continuing RUL ECT is non-inferior to switching to BT ECT in terms of depressive symptom severity, and (2) continuing RUL ECT is superior to switching to BT ECT in terms of cognitive side effects.

**Image:**



Figure 1: Right unilateral electrode placement (RUL)

Figure 2: Bitemporal electrode placement (BT)

**Image 2:**

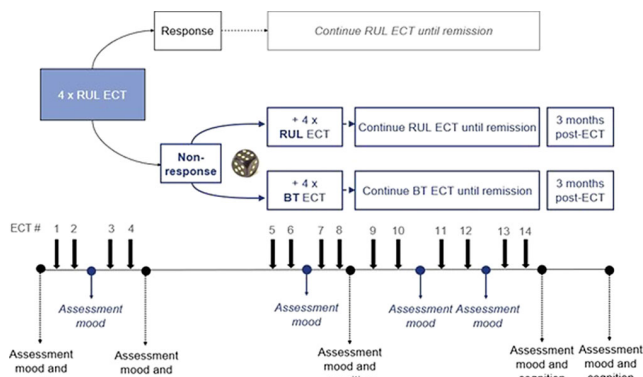


Figure 3: Study design

**Conclusions:** The ChaT-trial is the first RCT comparing antidepressant efficacy and cognitive effects of continuing RUL ECT with switching to BT ECT in case of early non-response during an acute ECT-course. The results may optimize clinical decision making, speeding up recovery, while minimizing cognitive side effects.

**Disclosure of Interest:** None Declared

**EPP0060**

**Postictal recovery of orientation in person, place and time relates to restoration of cortical activity after electroconvulsive therapy**

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**Introduction:** Most patients show temporary impairments in clinical orientation (i.e., orientation in person, place, and time) after electroconvulsive therapy (ECT)-induced seizures. It is unclear whether postictal reorientation is related to electroencephalography (EEG) restoration. This tentative relationship may shed light on mechanistic aspects of reorientation after ECT.

**Objectives:** To study whether postictal EEG restoration after an ECT-induced seizure is related to recovery of clinical orientation in the cognitive domains person, place and time.

**Methods:** We performed a longitudinal study in ECT patients and collected continuous postictal EEGs. Postictal EEG restoration was estimated by the evolution of the normalized alpha/delta ratio (ADR). Recovery of orientation in the cognitive domains of person, place, and time was assessed using the Reorientation Time (ROT) questionnaire. In each cognitive domain, a linear mixed model was fitted to investigate the relationship between ROT and postictal EEG restoration. In these models, other (ECT-)parameters including seizure duration, use of benzodiazepines and electrode placement were included.

**Results:** In total, 272 ictal and postictal EEG recordings of 32 patients were included. In all domains, longer ROT was associated with slower postictal EEG recovery. Longer seizure duration and use of benzodiazepines were related to longer ROT in all domains. Increased total charge of the ECT-stimulus was associated with increased ROT in place and age was positively associated with ROT in time.

**Image:**

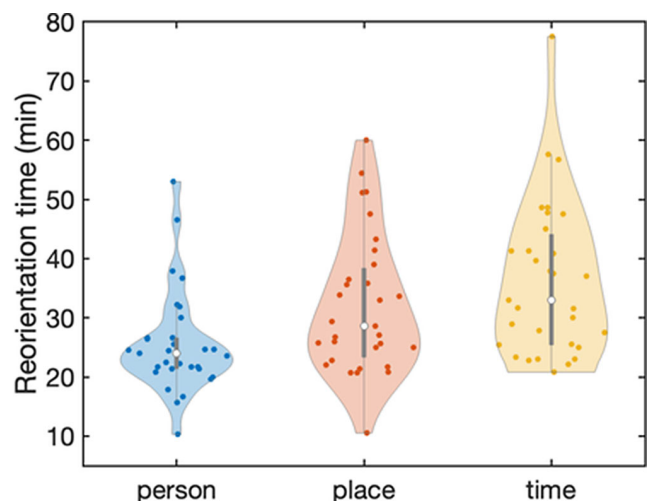
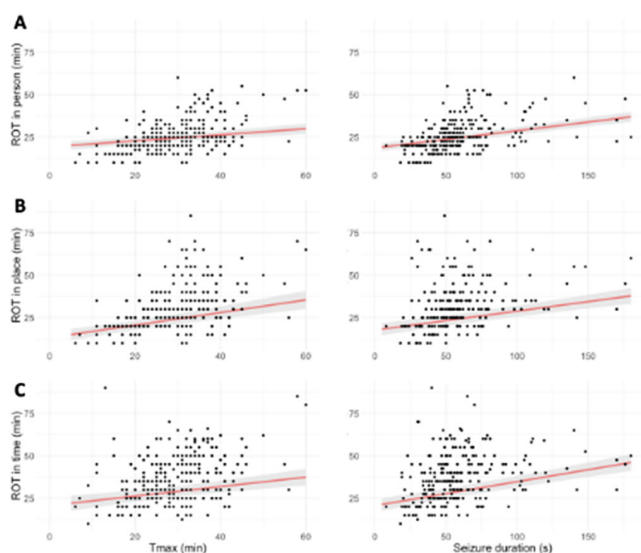


Image 2:



**Conclusions:** We show a relationship between restoration of the postictal EEG and clinical reorientation in person, place and time after ECT-induced seizures. This indicates that clinical reorientation probably depends on gradual cortical synaptic recovery. Increased seizure duration and the use of benzodiazepines were also related to increased ROT values. Longer seizures and use of benzodiazepines may induce longer postictal synaptic depression.

**Disclosure of Interest:** None Declared

## Schizophrenia and other psychotic disorders

### EPP0061

#### Relation between biomarkers and suicide attempts in patients with schizophrenia

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**Introduction:** An increased risk of suicide has been reported by psychiatric patients, including schizophrenia<sup>1</sup>. Numerous evidence suggests alterations in the grade of pro-inflammatory impact on suicidal behavior<sup>2</sup>, and this relation has been shown in patients with mood or anxious disorders<sup>3,4</sup>. However, the grade of inflammation impact suicidal behavior in patients with schizophrenia has hardly been investigated.

**Objectives:** Identify peripheral blood biomarkers of suicidal behavior in patients with schizophrenia, including inflammatory and lipid profile parameters.

**Methods:** Secondary analysis of a cross-sectional study. Sample: 254 patients with schizophrenia, aged 18-72. Assessments: ad-hoc demographic and clinical questionnaire, PANSS, CDS, CAINS,

PSP. Inflammatory and lipid parameters: C-reactive protein (PCR), interleukin 6 (IL-6); high-density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), total cholesterol (TC), triglyceridaemia (TG). Statistical analysis: Correlations, T Student, U Mann-Withney and lineal regression.

**Results:** Mean age: 40.49 (13.10). Men: 64.2%.

No statistically significant differences were found between patients with suicide attempts and those without in any of the inflammatory or lipid parameters ( $p > 0.05$ ). However, differences were found in terms of suicide attempts (yes/no) in the PANSS negative ( $T = -2.217$ ;  $p = 0.028$ ) and PANSS general psychopathy ( $T = -4.224$ ;  $p < 0.001$ ), in depressive symptoms ( $T = -6.967$ ;  $p < 0.001$ ), and the MAP subscale of the CAINS ( $T = -3.741$ ;  $p < 0.001$ ).

Among patients with suicide attempts ( $n = 42$ ; 16.52% of the sample) (mean = 1.90; sd = 1.73; Range: 1-7), statistically significant correlations were found with PCR ( $r = 0.309$ ;  $p = 0.046$ ), but not with cytokines and lipid parameters. On the other hand, no correlations were found with age, sex, length of illness, and any of the clinical scales.

A multiple linear regression was performed considering the number of suicide attempts as the dependent variable and as independent variables, age, sex, and those that were significant in the bivariate analysis (PCR).

A predictive model was found that explains 9.60% of the variance of number of suicide attempts ( $F = 4.224$ ;  $p < 0.001$ ). The variable that entered the model was PCR ( $\beta = 0.309$ ;  $p = 0.046$ ).

**Conclusions:** The increase in inflammation (manifested by the elevation of PCR) is related to an increase in the number of suicides. On the contrary, no correlations were found with lipid parameters or interleukins.

**Disclosure of Interest:** None Declared

### EPP0062

#### Relevance of measurement of beta-2-microglobulin in schizophrenia

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**Introduction:** There are several arguments supporting the inflammatory hypothesis in schizophrenia (SCZ). Among the inflammatory markers, beta-2- microglobulin ( $\beta 2M$ ) is associated with abnormalities in neurogenesis and cognitive impairment described in (SCZ).

**Objectives:** The objectives of our study were to evaluate the level of  $\beta 2M$  in a group of patients compared with a control group and to investigate the sociodemographic, clinical, and environmental factors associated with elevated  $\beta 2M$  levels

**Methods:** We conducted a cross-sectional in outpatients with SCZ. We collected patients sociodemographic, environmental, and clinical data. We assessed psychopathology with the PANSS. We measured serum  $\beta 2M$  concentration.

**Results:** We included 30 patients with SCZ compared with 20 controls. Patients mean age was  $40,23 \pm 10,66$ . The mean level of  $\beta 2M$