

Quality Index global score (PSQI-global). Pearson correlation analyses were performed between DB baseline to Week 26 change in Cogstate composite and subscale scores and Week 26 change in the psychiatric scale scores.

**Results:** Small improvements, from DB baseline to Week 26, were observed in standardized scores on the Cogstate composite (+0.29), Identification task (+0.19), Detection task (+0.28); One Card learning task (+0.33); and One Back task (+0.33). Improvement from OL baseline at Week 26 was also observed on the mean [SD] UPSA-B total score (+6.2 [11.6]). At DB baseline, there were no correlations between CogState composite score and individual test scores with any of the psychiatric scales. Week 26 improvement in the following Cogstate composite and subscale tasks were correlated with Week 26 improvement in the following psychiatric scale scores: Cogstate composite score (PANSS total,  $r=-0.26$ ; BNSS total,  $r=-0.31$ ; CGI-S,  $r=-0.30$ ; MADRS total,  $r=-0.23$ ; PSQI-global,  $r=-0.23$ ); Identification task (PANSS total,  $r=-0.30$ ; BNSS total,  $r=-0.30$ ), Detection task (BNSS total,  $r=-0.30$ ; CGI-S,  $r=-0.28$ ; PSQI-global,  $r=-0.23$ ); One Card learning task (MADRS total,  $r=-0.29$ ); and One Back task (PANSS total,  $r=-0.26$ ).

**Discussion:** During 6-months of open-label extension treatment with SEP-363856, improvement in overall functioning was observed on the UPSA-B scale; and small but consistent improvement in cognition was noted in the Cogstate composite and subscale task scores. Endpoint reduction in the severity of schizophrenia-related symptomatology (eg, on the PANSS, BNSS, MADRS, insomnia) were associated with modest correlations, in the range of 0.2 to 0.3, in cognitive performance as measured by the Cogstate composite and subscale task scores.

#### M209. TO WHOM WE PRESCRIBE LONG ACTING ANTIPSYCHOTICS AT DISCHARGE FROM HOSPITAL?

Alp Uçok<sup>\*1</sup>, Olcay Şenay<sup>1</sup>, Zhala Mursalova<sup>1</sup>, Shahriyar Gadimov<sup>1</sup>  
<sup>1</sup>Istanbul Faculty of Medicine

**Background:** Although the growing evidence show the advantages of long acting injectable (LAI) antipsychotics on treatment of psychotic disorders, characteristics of the patients with psychotic disorders using LAI is not studied enough. The aim of this retrospective study is to understand the clinical characteristics of the patients with psychotic disorders to whom any LAI was prescribed at discharge from hospital

**Methods:** We screened the files of 400 inpatients with psychosis spectrum disorders who were treated in inpatient units of Istanbul Faculty of Medicine, Department of Psychiatry between 01.01.2014-01.01.2019. We recorded the last admission if the patient had more than one hospitalization. We compared the variables including illness duration, diagnosis, presence of involuntary hospitalization, insight, substance/alcohol abuse, forensic problems between those who were prescribed LAI and others. We also applied logistic regression analysis to detect the independent predictors of LAI prescription.

**Results:** Thirty-nine percent of the patients were given LAI at discharge. Patients with schizophrenia and schizoaffective disorders were more common compared to psychotic disorder NOS/schizophreniform disorder in LAI group ( $p<0.001$ ). Those who prescribed LAI were older and had longer duration of psychotic disorder. Poor insight at admission, past and present noncompliance, involuntary admission (64,5% vs 35,5%,  $p=0.003$ ) and history of forensic problems (63% vs 37%,  $p=0.01$ ) were more common in LAI group. Past ECT treatment, antipsychotic polypharmacy and LAI treatment in past were more common in LAI group. Lack of insight at admission, history of LAI treatment before and noncompliance to medications before hospitalization were appeared as predictors of LAI prescription at discharge in logistic regression. We found no relationship between LAI prescription and drug abuse, treatment resistance and psychiatric comorbidity.

**Discussion:** Our findings suggest that LAIs were prescribed to chronic and older inpatients with lack of insight, and compliance at admission. The patients who were prescribed LAI also had indirect indicators of poor outcome, like previous ECT and polypharmacy. Contrary to previous reports, we found no difference in alcohol/substance abuse between those who were prescribed LAI and others.

#### M210. GRIN2B METHYLATION IS RELATED TO PANSS EXCITED COMPONENT (PANSS-EC) IN SCHIZOPHRENIA

Helene Fachim<sup>\*1</sup>, Olga Yu. Fedorenko<sup>2</sup>, Elena G. Kornetova<sup>2</sup>, Svetlana A. Ivanova<sup>2</sup>, Adrian Heald<sup>3</sup>, Gavin P. Reynolds<sup>4</sup>  
<sup>1</sup>Salford Royal NHS Foundation Trust; <sup>2</sup>Mental Health Research Institute, Tomsk National Research Medical Centre of the Russian Academy of Sciences; <sup>3</sup>Salford Royal Foundation Trust-Salford-UK; <sup>4</sup>Sheffield Hallam University-Sheffield

**Background:** Among the adversities found in schizophrenia, the dysfunctions in the glutamatergic system, specifically the N-methyl-D-aspartate receptor (NMDAR) are apparent. GRIN2B (coding a NMDAR subunit) has a critical role in synaptic plasticity and important participation in CNS neurodevelopment, this gene is closely associated with behavioural and cognitive impairments. One of the mechanisms that may underlie the deficiencies seen in the glutamatergic system in psychosis is DNA methylation as it is known to regulate gene expression. As part of a major study investigating the relationship of DNA methylation with schizophrenia and its symptom response to antipsychotic drug treatment, we determined whether methylation of the GRIN2B promoter region was associated with specific symptoms of schizophrenia determined by the Positive and Negative Syndrome Scale (PANSS).

**Methods:** Blood samples were collected from schizophrenia patients ( $n = 79$ ) on admission to the study. Bisulphite conversion and pyrosequencing were used to determine methylation levels in 5 CpG sites in the GRIN2B promoter. PANSS score and the five factor subscores (Wallwork et al, 2012) at baseline and at 6 weeks was collected, and the change in PANSS following treatment was determined.

**Results:** Mean methylation at the five CpG sites was not associated with overall PANSS score or with the change in PANSS. However, a highly significant positive correlation of mean methylation with the baseline excited factor score ( $r=0.342$ ,  $p=0.002$ ), but with no other PANSS subscore, was found. No significant correlation with changes in PANSS, or in changes in subscores, over the treatment period was found.

**Discussion:** This is the first evidence showing GRIN2B methylation correlation with the excited component (EC) of schizophrenia symptoms. PANSS-EC is used to assess agitated patients (Lindenmayer et al., 2008, Montoya et al., 2011), and is valuable in identifying risks associated with agitation and aggression related to primary psychiatric disturbances. This result suggests that this GRIN2B epigenetic signature may relate to agitation and aggressive behaviour in schizophrenia.

#### M211. NEUROPROTECTIVE EFFECT OF SHI-ZHEN-AN-SHEN-TANG, A CHINESE HERB FORMULA ON MICE EXPOSED TO CUPRIZONE

Chao Ma<sup>1</sup>, Yan Wu<sup>1</sup>, Pei Chen<sup>1</sup>, Yuan Jia<sup>1</sup>, Dongqing Yin<sup>1</sup>, Yanzhe Ning<sup>1</sup>, Hong Zhu<sup>\*1</sup>, Xue Li<sup>1</sup>, Xinyao Liu<sup>1</sup>, Zuoli Sun<sup>1</sup>, Hongxiao Jia<sup>1</sup>

<sup>1</sup>The National Clinical Research Center for Mental Disorders & Beijing Key Laboratory of Mental Disorders, Beijing Anding Hospital, Capital Medical University