

and functionally characterized. Cut-off for response to treatment was a 50% reduction of BPRS score. Statistical analysis was performed with one-way ANOVA followed by the test for linear trend between columns.

**Results:** All subjects achieved response after 8 weeks of treatment, but 6 patients after 4 weeks. Early responders have a genetic profile associated with increased dopamine and serotonin receptor expression and/or binding affinity for their specific ligands. The association don't reach statistical significance, probably due to low number of patients.

**Conclusions:** Preliminary results suggest that an array of dopamine and serotonin receptors SNPs could predict time to respond to CAR in schizophrenia and bipolar disorder.

**Disclosure:** The study is funded by Recordati AG, that commercialize the drug under study (Cariprazine) in Switzerland. Funding covers the costs for genetic analysis and other procedures of the study, no financial compensation is planned for investigators/authors.

**Keywords:** real world setting; Antipsychotics; Precision Medicine; pharmacogenomics

## EPV1036

### Individual-specific changes in circadian rest-activity rhythm and sleep in symptom-free patients tapering their antidepressant medication

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**Introduction:** Group-level studies showed cross-sectional and prospective between-person associations between circadian rest-activity rhythms (RAR), physical activity (PA), sleep, and depressive symptoms. However, whether these associations replicate at the within-person level remains unclear. Therefore, it is clinically relevant to investigate these associations within persons and study whether changes in depressive symptoms are related to changes in circadian rhythm and sleep variables.

**Objectives:** To identify changes in circadian rhythm elements in proximity to a transition in depressive symptoms, whether changes are less frequent in individuals without compared to those with transitions, and whether there are individual differences in the direction of change of circadian rhythm variables.

**Methods:** Data of remitted individuals tapering antidepressants were used: 12 with and 14 without a transition in depressive symptoms. RAR, PA, and sleep variables were calculated as predictors from four months of actigraphy data. Transitions in depressive symptoms were based on weekly SCL-90 scores and evaluation interviews. Kernel Change Point analyses were used to detect change points (CPs) and CP timing in circadian rhythm variables for each individual separately.

**Results:** In 67% of individuals with depressive symptoms transitions, CPs were identified in proximity to symptom transitions. CPs were detected less frequently in the no-transition group with 7 CPs in 14 individuals, compared to transition groups with 10 CPs in 12 individuals. For several RAR and sleep variables, consistent changes were detected in expected directions.

**Conclusions:** Circadian rhythm variables provide potentially clinically relevant information although their patterns around transitions are highly person-specific. Future research is needed to disentangle which variables are predictive for which patients.

**Disclosure:** No significant relationships.

**Keywords:** individual models; circadian rhythm; Depression; sleep

## EPV1037

### Neurodevelopmental continuum and pathogenic CNV detection in adult onset psychiatric disorders: microarray analysis in psychiatric clinical practice.

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**Introduction:** Structural variations of DNA, such as copy number variations (CNVs), are important contributors to risk for human diseases. Several CNVs have been associated with an increased risk of early-onset neurodevelopmental disorders (NDD), adult-onset psychiatry disorders and physical comorbidities. While in Pediatrics the microarray is the first-line genetic analysis technique in the study of child onset NDD, its use in psychiatry care of young/adult onset NDD has been limited to research purposes.

**Objectives:** Review of the diagnostic yield of the use of microarrays analysis in psychiatric clinical practice of severe mental disorder care in adults, according to the concept of a neurodevelopmental continuum.

**Methods:** An exploratory literature review on the topic in PubMed, including the terms: “copy number variants/CNVs” AND “neurodevelopmental delay/disorders, congenital anomalies/malformations, ADHD, autism/ASD, learning disabilities, epilepsy, Tourette, schizophrenia, bipolar, behaviour”.

**Results:** The prevalence of carriers of pathogenic or likely pathogenic CNVs among the different NDD phenotypes investigated by microarray analysis ranged from 3-22.5%. The majority of studies in adult psychiatric populations examined schizophrenia. Intellectual disability, autism spectrum disorders, dysmorphic features and multiple NDD/psychiatric diagnoses were described as predictors of an increased diagnostic yield of microarray testing.

**Conclusions:** While CNV testing is frequent in early-onset NDD; microarray analysis has not been established in psychiatric clinical practice despite the evidence of a high prevalence of findings in adult-onset NDD. The potential benefits in the detection of CNV are associated with physical comorbidities detection, understanding of pathogenesis of disease or genetic counseling. High-quality research designs are required before a routine clinical use.

**Disclosure:** No significant relationships.

**Keywords:** schizofrenia; CNVs; Neurodevelopmental disorders; microarray analysis