Methods: Eighty-seven participants with BD in different phases of the illness were included. Patterns of adherence for wearable use, daily and weekly self-rating scales over 15 months were analyzed to identify adherence trajectories using growth mixture models (GMM). Multinomial logistic regression models and Multiple Component Analyses were fitted to compute the effects of predictors on GMM classes.
Results: Adherence rates were 79.5% for the wearable; 78.5% for weekly self-ratings; and 74.6% for daily self-ratings. GMM identified three latent class subgroups: (i) participants with good adherence with the protocol; (ii) participants with partial adherence; (iii) participants with poor adherence. Women, participants with a history of suicide attempt, and those with a history of inpatient admission were more likely to belong to the group with good adherence.
Conclusions: Participants with higher illness burden (e.g., history of admission to hospital, history of suicide attempts) have higher adherence rates to e-monitoring. This is important because our findings debunk myths around illness burden as an obstacle to adhere to e-monitoring studies. Participants might have seen e-monitoring as a tool for better documenting symptom change and better managing their illness, thus motivating their engagement.

Disclosure of Interest: None Declared

EPP0788

Associations between long-term lithium treatment and renal, thyroid, and parathyroid function: A register-based study

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Introduction: Although the effect of lithium treatment on kidney and endocrine systems has been extensively investigated, this literature, however, suffers from substantial heterogeneity and many prior studies are limited by short follow-up on just one marker of interest.
Objectives: We aimed to determine the impact of long-term lithium therapy on renal, thyroid and parathyroid function within a large real-world cohort.
Methods: We performed a cohort study within the Central Region of Denmark (approximately 1.3 million inhabitants). Using the Electronic Patient Record system, we identified all patients with at least one serum-lithium (se-Li) measurement in the period from January 1, 2013 to July 20, 2022, and a reference group of patients diagnosed with bipolar disorder (ICD-10: F30, F31) was matched on age, sex and creatinine level. The outcomes were renal, thyroid, and parathyroid function as indicated by all blood tests taken during follow-up measuring creatinine, estimated glomerular filtration rate (eGFR), thyroid-stimulating hormone (TSH), parathyroid hormone (PTH) and calcium. Multilevel regression analyses adjusted for age, sex, severity of the mental disorder (as indicated by the number of hospitalizations), and somatic comorbidity calculated the association between lithium treatment and development in renal, thyroid, and parathyroid function over time.
Results: A total of 4,709 lithium users (61.5% females, median age 46 years [IQR: 32-60]) and 4,027 control individuals were identified with a total follow-up period of 14,686 person-years (median = 1.7 years, range: 1-9.5). Out of the 4,709 lithium users, a total of 3,157 were incident lithium users. The final results will be shown at the 2023 EPA Congress.
Conclusions: The conclusions will be presented at the congress.

Disclosure of Interest: None Declared

EPP0789

Are there any differences in clinical and biochemical variables between bipolar patients with or without lifetime psychotic symptoms?

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Introduction: Bipolar Disorder (BD) is a frequent psychiatric disorder, which can be associated with high disability. Psychotic symptoms occur in more than half of bipolar patients and are associated with an unfavorable course of the disorder (Chakrabarti *et al.* World J Psychiatry 2022; 12(9) 1204-1232).
Objectives: The aim of this study is therefore to identify clinical and biological markers able to discriminate between BD patients with (BD-PS) and without lifetime psychotic symptoms (BD-NPS) to facilitate early diagnosis and to implement a target clinical management of these patients.
Methods: We recruited 665 patients consecutively hospitalized for BD at Fondazione IRCCS Policlinico (Milan) and at San Gerardo Hospital (Monza). Data were obtained through a screening of the clinical charts and blood analyses conducted during the hospitalization. Patients were assessed by psychometric scales. The two groups (BD-PS and BD-NPS) were compared by t tests for quantitative variables and χ^2 tests for qualitative ones. Variables that resulted to be significant in univariate analyses were inserted in binary logistic models with the presence of psychotic symptoms as dependent variable.
Results: Among the total sample, 64.5% of patients were affected by BD-PS while 35.5% by BD-NPS. The final binary logistic regression model showed that, compared to patients with BD-NPS, those with BD-PS had a longer duration of hospitalization (p=0.007) and were more frequently hospitalized for a manic episode (p=0.001). In addition, subjects with BD-PS had a lower score on the current Global Assessment of Functioning (GAF) ($t = 3.157$; $p = 0.002$) and were more frequently males ($\chi^2 = 4.061$; $p = 0.044$; OR = 1.399).

With regard to biological variables, patients with BD-PS, compared to the counterpart, had a higher Neutrophile to Lymphocyte Ratio (NLR) (t = 2.776; p = 0.006), lower levels of Gamma-Glutamyl Transferase (γGT) (t = 2.249; p = 0.026), higher total bilirubin (t = 2.348; p = 0.019) and creatine phosphokinase (CPK) (t=2.807; p = 0.005), lower total cholesterol (t = 2.369; p = 0.018) and triglycerides (t = 2.554; p = 0.013).
Conclusions: Our data appear to be in line with the literature, especially with respect to the occurrence of psychotic symptoms mainly in manic episodes and their association with greater clinical severity, longer hospitalization and worse outcome (Altamura *et al.* Aust N Z J Psychiatry 2019; 53(8) 772-781). From a biological point of view, it seems important to emphasize that patients with lifetime psychotic symptoms presented a higher NLR, revealing more prominent low-grade inflammation in these patients than the counterpart. These data confirm the possibility of using NLR as biomarker of severity in bipolar patients, as proposed previously by other authors (Kulacaoglu *et al.* Nord J Psychiatry 2022). Future multi-center study have to confirm the results of the present study.

Disclosure of Interest: None Declared

EPP0790

Clinical factors associated with unipolar mania: A systematic review and meta-analysis

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Introduction: The existence of a clinical entity on the spectrum of mood disorders characterized by the occurrence of manic episodes without major depressive episodes (Unipolar Mania, UM) is largely debated. Although not classified nosologically, the studies exploring this topic have suggested that UM might differ from bipolar disorder with a manic-depressive course (md-BD), in terms of several clinical characteristics. Individuals with UM might represent a subpopulation with specific clinical profiles and unmet care needs, requiring personalized treatments, as compared with those suffering from md-BD.
Objectives: To identify clinical factors associated with UM, as compared with md-BD.
Methods: We performed a systematic review and meta-analysis of observational studies according to the MOOSE guidelines. We searched for articles indexed up to July 2022 in the main electronic databases. We conducted random-effects meta-analyses of the association between UM and relevant correlates, using odds ratio for categorical variables and standardized mean difference for continuous variables.
Results: Based on data from 21 studies meeting the eligibility criteria, we found that individuals with UM, as compared with md-BD, were more likely to be males (p = 0.007) and to have an earlier age at onset (p = 0.020). Moreover, UM was significantly associated with a higher number of hospitalizations (p < 0.001), the occurrence of psychotic features (p < 0.001), as well as hyperthymic temperament (p = 0.012). Finally, subjects with UM were less likely to report a family history of depression (p = 0.006) and a personal history of suicide attempts (p < 0.001).
Conclusions: Our work supports the hypothesis that UM might represent a distinctive diagnostic construct, with peculiar clinical correlates. Additional research is needed to better differentiate UM in the context of affective disorders.

Disclosure of Interest: None Declared

EPP0791

Sleep spindle and slow wave activity in Bipolar Disorder: preliminary observations from a high–density EEG study

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Introduction: Recent research on Schizophrenia (SCZ) suggests that reduced sleep spindle and slow wave density could be particularly informative of underlying thalamocortical and cortical synchronization mechanisms and dysfunctions. Although sleep disturbances are also highly prevalent across all stages of Bipolar Disorder (BD), the objective evaluation of sleep macrostructure and microstructural oscillatory activity remains understudied in this population.
Objectives: We aimed to investigate sleep EEG activity in BD, with a focus on sleep architecture, sleep spindles and slow waves.
Methods: We recorded high-density EEG (64–channel BrainAmp, Brain Products GmbH, Germany) during sleep in 18 euthymic patients with BD and 18 age/gender-matched healthy control (HC) subjects. After sleep scoring and EEG artifact rejection, several parameters of sleep spindles (12-16 Hz), including density and amplitude, and slow waves (0.1-4 Hz) were identified for the first cycle of sleep using automated algorithms and compared between groups using non-parametric statistics.
Results: BD subjects showed significantly higher Wake After Sleep Onset and lower Sleep Efficiency (Table 1). Total (12 - 16 Hz), slow (12 - 14 Hz) and fast (14 - 16 Hz) sleep spindle parameters of density (Image 1) and amplitude did not differ significantly between groups. On the other hand, slow wave density was reduced in a large frontal cluster of electrodes in the BD group (Image 2).
Image:

Table 1

	BD (n = 18)	HC (n = 18)	Difference (p value)
WASO (min ± sd)	140,61 ± 74,23	84,34 ± 59,84	0,017
Sleep efficiency (% ± sd)	72,47 ± 14,33	82,43 ± 11,58	0,028