

Outcome Scales (HoNOS) and Liverpool University Neuroleptic Side Effect Rating Scale (LUNERS).

**Results** Of 32 completers who experienced a beneficial effect of memantine 23 patients continued memantine for one year. Memory improvement was sustained, verbal recognition memory improved even further between  $t=26$  weeks and  $t=52$  weeks. Continued treatment with memantine add-on to clozapine was associated with significantly improved PANSS positive, negative and overall score, CGI-S and HoNOS scores.

**Conclusions** In the extension phase the positive effect of memantine add-on therapy on verbal memory sustained and positive, negative and overall symptoms of schizophrenia, clinical global status and psychosocial functioning significantly improved. Memantine was well tolerated without serious adverse effects.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## FC95

### Decreased interhemispheric resting state functional connection in schizophrenic patients with auditory hallucinations

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**Introduction** Auditory hallucination (AH) has been always concerned as a main core symptom of schizophrenia. However, the mechanisms of AH are still unclear.

**Objectives** The aim of this study is to further explore the complicated neuroimaging mechanism of AHs from a new insight by using voxel-mirrored homotopic connectivity (VMHC).

**Methods** Forty-two patients with AH (APG), 26 without AHs (NPG) and 82 normal controls (NC) participated in resting state fMRI scan. Correlation analyses were used to assess the relationships between VMHC and Hoffman scores. Additionally, ROI analysis was used to further know about the functional connectivity between the brain areas with changed interhemispheric FC and the whole brain.

**Results** APG showed reduced VMHC in the parahippocampus, fusiform gyrus, rolandic operculum, insula, heschl's gyrus and superior temporal gyrus (STG). Hoffman score of APG group had negative correlation with VMHC in these regions. Besides, ROI analysis supported decreased interhemispheric FC in schizophrenia with AH and verified functional connectivity abnormalities in schizophrenia.

**Conclusions** These findings suggest impairment of interhemispheric coordination and whole brain FC in schizophrenia with AH, which may be implicated to the neuroimaging mechanism of auditory hallucination. Furthermore, this research highly support dysconnectivity hypothesis that schizophrenia related to abnormalities in neuronal connectivity.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## FC96

### Efficacy and safety of brexpiprazole in schizophrenia: Meta-analysis of three double-blind, randomized, placebo-controlled phase 3 studies

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**Introduction** Brexpiprazole is a serotonin-dopamine activity modulator that is a partial agonist at 5-HT<sub>1A</sub> and dopamine D<sub>2</sub> receptors at similar potency, and an antagonist at 5-HT<sub>2A</sub> and nor-adrenaline alpha<sub>1B/2C</sub> receptors.

**Objectives** To evaluate the efficacy, safety, and tolerability of brexpiprazole in patients with acute schizophrenia in a meta-analysis of three phase 3 studies with brexpiprazole.

**Aim** The primary endpoint was change from baseline to week 6 in PANSS total score.

**Methods** Data from the 3 clinical studies in patients with acute schizophrenia were combined and analyzed using individual patient data meta-analysis. In two similarly designed studies (NCT01396421; NCT01393613), patients with acute schizophrenia were randomized to fixed-doses of brexpiprazole 2 mg/day, 4 mg/day or placebo (a low-dose treatment group was included in each study [0.25 mg and 1.0 mg]; not included in the meta-analysis). In the third study (NCT01810380), patients were randomized to flexible dosing of brexpiprazole (2 to 4 mg/day), placebo, or an active reference (quetiapine extended release). Changes from baseline for brexpiprazole vs. placebo were analyzed using an MMRM approach.

**Results** Brexpiprazole 2–4 mg ( $n=868$ ) was superior to placebo ( $n=517$ ) in change from baseline in PANSS total score ( $-20.1$  vs.  $-14.3$ ; estimated treatment difference to placebo:  $-5.8$  [95% CI:  $-8.0$ ;  $-3.6$ ];  $P<0.001$ ). The proportions of patients reporting TEAEs were similar between the brexpiprazole and placebo treatment groups (57.9% vs. 57.5%). No unexpected safety concerns were observed.

**Conclusion** This meta-analysis supports evidence from three individual trials that brexpiprazole is efficacious and safe in treating patients with acute schizophrenia.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## Sleep disorders and stress

### FC97

#### Sleep disturbances and substance use disorders: An international study of primary care and mental health specialty care patients

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**Introduction** There is no comprehensive evidence on the influence of sleep disturbances (SD) on substance use disorders (SUD) or treatment use patterns of individuals with comorbid disturbances.

**Objective/aim** To better understand comorbidities and treatment use patterns of individuals with SD and SUD.