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**Objective** to examine the longitudinal effect of depression on glycemic control in a sample of patients with type 2 diabetes.

**Methods** the patients were recruited from diabetes clinic in Saudi airlines medical center, in Jeddah, the base line study community consisted from 172 patients with type 2 diabetes. They were assessed for depression using BDI II, and diagnostic interview, and for diabetic control using HbA1c. We created a person-period data set for each patient to cover 6 months intervals up to 3 years. We used generalized estimation equation (GEE) for analysis of longitudinal data. HbA1C was the response variable while depression and time were the main covariates. Variables were included in GEE models based on clinical importance and preliminary analysis. Other variables included as covariates were gender, education, duration of diabetes, co-morbidity and LDL. All statistical analysis used  $\alpha = 0.05$  level of significance and were performed using SPSS software version 21.

**Results** Unadjusted HbA1c means were significantly higher in depressed vs. non-depressed subjects at all time points. The adjusted HbA1c means in final GEE model were significantly higher in depressed vs. non-depressed subjects. In all adjusted models depression was a predictor of glycemic control whether it was BDI score (estimate = .049,  $P = .002$ ), diagnoses of MDD (estimate = 2.038,  $P = .000$ ), or other depressive diagnosis (estimate = 1.245,  $P = .000$ ).

**Conclusion** This study on clinical sample of type 2 diabetic patients demonstrates that there is a significant longitudinal relationship between depression and glycemic control and that depression is associated with persistently higher HbA1c over time.

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

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#### EV478

### Agomelatine vs fluoxetine: Efficacy and improvement of cognitive functions in patients with MDD

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**Introduction** In major depressive disorder (MDD) neurocognitive functions are impaired. In addition to melatonergic properties of agomelatine, via 5-HT<sub>2C</sub> antagonism it increases extracellular noradrenaline and dopamine in frontal cortex and may improve the neurocognitive functions of patients with MDD.

**Aims and objectives** To investigate the extent of neurocognitive improvement and efficacy of agomelatine and fluoxetine in patients with MDD.

**Material and method** Agomelatine 25 mg/day ( $n = 24$ ) and fluoxetine 20 mg/day ( $n = 24$ ) were administered to drug-naïve unipolar, non-psychotic, non-suicidal MDD patients according to DSM-IV. Evaluations were performed just before the treatment and at the sixth week of treatment via administering Hamilton Depression Rating Scale, Rey Auditory Verbal Learning Test, Controlled Oral Word Association Test (COWAT), Digit Span Test (DST), Trail

Making Test (TMT-A/B), Stroop Test and Wisconsin Card Sorting Test.

**Results** Both agomelatine and fluoxetine was found to be efficacious for the treatment of MDD ( $P < 0.05$  for both). Further there was no difference between the antidepressant efficacy of two drugs. Both of the drugs improved measured neurocognitive functions ( $P < 0.05$ ), except scores of DST ( $P > 0.05$ ) and only fluoxetine improved significantly scores of COWAT ( $P < 0.05$ ). Only in terms of TMT-B there was significant difference between groups and agomelatine was superior to fluoxetine ( $P < 0.05$ ).

**Conclusion** Agomelatine and fluoxetine were efficacious in treatment of MDD. Furthermore both of the drugs improved cognitive functions in patients with MDD. Superiority of agomelatine in improvement of executive functioning (TMT-B) is important and therefore it could be an appropriate choice for MDD patients who have pronounced executive disturbances.

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

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#### EV480

### Associations among immune activation, the clinical characteristics, and the current severity of the “with anxious distress” specifier in patients with depressive disorders

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**Introduction** This study assessed the levels of immune factors, demographic and clinical characteristics, and pharmacological treatments of patients with depressive disorders and compared them between patients with mild-to-moderate and moderate/severe-to-severe anxiety.

**Methods** This study included 177 patients diagnosed with a depressive disorder who were hospitalized between March 2012 and April 2015. The patients were categorized into mild-to-moderate anxious distress and moderate/severe-to-severe anxious distress groups, based on the criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) based on the “with anxious distress” specifier. The current severity of symptoms was determined using the Hamilton Depression Rating Scale (HAM-D) scores on the Agitation and Anxiety-Psychic subscales. The charts of the patients were reviewed to evaluate immune factors, including C-reactive protein (CRP) and white blood cell (WBC) levels, confounding factors, such as smoking, other general medical disorders, and body mass index (BMI), and demographic and clinical characteristics.

**Results** The moderate-severe to severe anxious distress group tended to have higher CRP and monocyte levels compared with the mild to moderate anxious distress group. However, after adjusting for the total HAM-D scores, there was a significant difference only in monocyte levels. After this adjustment, patients with moderate-severe to severe anxious distress had a significantly greater trend toward significance for suicidality and a higher rate of antipsychotic use.