

Psychomotor agitation (HAM-D # 9), psychic anxiety (HAM-D # 10), insomnia (HAM-A # 4) and weight loss (HAM-D # 16) were typical for patients with hyperthyroidism, while in the control group predominate the feelings of fatigue, weakness and loss of interest in working (HAM-D # 7).

**Conclusions:** The prevalence of anxiety in patients with hyperthyroidism is significantly more frequent compared to euthyroid patients. Anxiety and other psychiatric symptoms should be considered by both endocrinologists and psychiatrists.

**Disclosure:** No significant relationships.

**Keywords:** Anxiety; Mental symptoms; Thyrotoxicosis; Hyperthyroidism

## EPP0181

### Predicting the effect of antidepressant treatment on relief from anxiety symptoms

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**Introduction:** Depression and anxiety disorders are among the most prevalent forms of mental illness, with antidepressants frequently used to treat them. Unfortunately, prescription of antidepressant medication is often inexact and relies on a long trial-and-error process.

**Objectives:** Using machine Learning (ML) algorithms on readily obtainable clinical and demographic data of individuals diagnosed with depression with anxiety symptoms, we hypothesized that we will be able to derive models which will enable a more accurate treatment selection, focusing on relief from anxiety symptoms.

**Methods:** Patients' data from the Sequenced Treatment Alternatives to Relieve Depression (START\*D) were filtered to include only those who have considerable anxiety symptoms. We then analyzed these patients' response patterns, focusing on their anxious symptomology. Then, feature selection algorithms were applied to select the most predictive features for anxiety relief. Finally, we trained three ML models for three antidepressants: citalopram, sertraline and venlafaxine, using a training set of participants, and validated them on naïve validation and test datasets. These ML models were then compiled to create a predictive algorithm.

**Results:** Validating the algorithm on the validation and test sets, our algorithm achieved a balanced accuracy of 64.8% ( $p < 0.001$ ), 79.2% ( $p < 0.001$ ) and 78.03% ( $p < 0.001$ ) for citalopram, sertraline and venlafaxine, respectively.

**Conclusions:** Our findings support applying ML to accumulating data to achieve an improvement in the treatment of mood disorders. The algorithm we developed may be used as a tool to aid in the choice of antidepressant medication, specifically for depressed patients who exhibit prominent anxiety symptoms.

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**Keywords:** Precision Medicine; Anxiety disorders; machine learning; Treatment Selection

## EPP0182

### Comparative effectiveness of group-analysis therapy and psychoeducation in patients with different somatoform disorders

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**Introduction:** Psychological interventions including group analysis (Leichsenring et al., 2015, Beutel et al., 2008) are effective with patients having somatoform disorders.

**Objectives:** To reveal differences in dynamics of pathological bodily sensations, quality of life, illness representation in patients with somatoform disorders undergoing group analysis and psychoeducation program.

**Methods:** 100 patients with somatoform disorders (undifferentiated somatoform disorder – 42, somatization disorder – 10, somatoform autonomic dysfunction – 36, persistent somatoform pain disorder and other SD – 12) were randomly assigned randomized to psychoeducation intervention and to the group analysis psychotherapy. Before and after treatment they filled Screening for somatoforms symptoms (Rief, Hiller, 2003), Illness Perception Questionnaire - Revised (Moss-Morris et al., 2002), Cognitions About Body And Health Questionnaire (Rief et al., 1998), Scale for the Assessment of Illness Behaviour (Rief et al., 2003), Quality of Life Enjoyment and Satisfaction Questionnaire-18 (Ritsner et al., 2005).

**Results:** In both conditions decrease in complaints was the most in patients with undifferentiated somatoform disorder and the least in somatoform autonomic dysfunction ( $F=6.19$ ,  $p < .01$ ,  $\eta^2=.17$ ). In patients with somatization disorder there was the most increase in quality of life in leisure time, beliefs about intolerance to bodily sensations, rechecking the diagnosis ( $F=3.32-4.87$ ,  $p < .05$ ,  $\eta^2=.10-.14$ ). Decrease in beliefs about bodily weakness, illness consequences was the most prominent in patients with somatization disorder undergoing group therapy ( $F=2.90-4.46$ ,  $p < .05$ ,  $\eta^2=.09-.13$ ).

**Conclusions:** Patients with undifferentiated somatoform disorder demonstrate most clinical improvement in interventions while patients with somatization disorder – the most psychological improvement. Research is supported by the Russian Foundation for Basic Research, project No. 20-013-00799.

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**Keywords:** group analysis; illness representation; Somatoform disorders