diagnoses were as follow: unipolar major depressive disorder (MDD) (50%), bipolar disorder (BD) (33.7%), and anxiety disorders (16.3%). subjects completed a socio-demographic questionnaire, the Udvalg for Kliniske Undersøgelser (UKU), and Adolescent/Adult Sensory Profile (AASP) questionnaire.
Results Longer duration of current episode correlated with greater registration of sensory input and lower avoidance from sensory input among unipolar patients, lower registration of sensory input, and higher tendency for sensory sensitivity/sensation avoidance among bipolar participants. In addition? longer duration of current episode correlated with lower sensory sensitivity/avoidance among anxiety participants, respectively. Mean UKU total scores were associated with lower sensory sensitivity among bipolar individuals as well.
Conclusions SPD expressed in either hypo-/hypersensitivity may be used to clinically characterize subjects with major affective and anxiety disorders.
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EW436

Dysfunctional meta-cognitive beliefs across psychopathology: A meta-analytic review

X. Sun*, S.H.W. So, C. Zhu, P.W.L. Leung
The Chinese University of Hong Kong, Department of Psychology, Hong Kong, China
* *Corresponding author.*

Introduction It is assumed that dysfunctional meta-cognitive beliefs about one's thoughts increase problematic appraisals and coping behaviors, which further contribute to the development of mental disorders (Wells and Matthews, 1994; Wells, 2000). Although this research interest originated around generalized anxiety disorder (GAD), recent studies have begun to examine similar meta-cognitive processes in other disorders. The majority of studies using Meta-cognitions Questionnaire (MCQ; Cartwright-Hatton & Wells, 1997) and its variants to assess meta-cognitive beliefs.
Objectives We conducted a meta-analysis to integrate empirical findings on group differences in meta-cognitive beliefs between healthy individuals and patients with various psychiatric disorders.
Methods We followed the PRISMA guideline (Liberati et al., 2009). A systematic literature search was conducted. We included studies that involved a diagnosed psychiatric group and healthy controls (aged 18 or above), reported group comparisons of metacognition, and were published during the period of 1990–27 August 2015. Effect sizes were computed.
Results A final set of 43 studies was included. Large combined effect sizes were found on each subdomain of the MCQ, indicating increased levels of dysfunctional meta-cognitive beliefs in patients. Subgroup analyses were carried out based on psychiatric diagnosis (i.e. psychosis, $n = 10$; GAD, $n = 7$; obsessive-compulsive disorder, OCD, $n = 15$; anorexia nervosa, $n = 5$). All patient groups were more dysfunctional on each subtype of meta-cognitive beliefs than controls. Effect size of U/D was particularly large for GAD, and that of CSC was particularly large for OCD.
Conclusions Dysfunctional meta-cognitive beliefs are evident across several psychiatric disorders, with specific types of beliefs being more marked in certain diagnoses.
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Psychopharmacology and pharmacoeconomics

EW438

Hematological safety of olanzapine

A. Alageel[1,*], E. Gaffas[2]
[1] *Imam University, Psychiatry Dep., Riyadh, Kingdom of Saudi Arabia*
[2] *Alamal Complex for Mental Health, Psychiatry Department, Riyadh, Kingdom of Saudi Arabia*
* *Corresponding author.*

Introduction Olanzapine is an atypical antipsychotic medication, previously expected to be safe in terms of hematological side effects and an alternative choice to clozapine in patients who develop hematotoxicities. However, since olanzapine was introduced to the market, a lot of cases reports have been published revealing it could cause hematoxicity. Some of them indicate that olanzapine induces agranulocytosis. Because of that, it raises the concerns about hematological safety of olanzapine.
Objective To date, no review discusses this topic specifically, so we conducted a systemic review to explore and address this issue.
Methods We searched Pubmed, Google Scholar, Ovid and Medline databases for articles between 1998 and 2015 that include keywords olanzapine, leukopenia, neutropenia, and agranulocytosis.
Results A total of 38 publications were identified. The case reports included patients aged 16 to 83 years. Doses ranged from 2.5 to 30 mg. After starting treatment, onset of hematotoxicity varied from the first day to 2–3 years, but most commonly within the first month. Also, olanzapine could induce leukopenia in patients who have never developed drug-related leukopenia.
Conclusion Among antipsychotic medications, olanzapine is the third leading cause of neutropenia and the second leading cause of atypical antipsychotic medication. Because of the small body of literature regarding the hematotoxic side effects of olanzapine, we encourage further research to understand the mechanism by which olanzapine causes granulocytopenia. The identification of risk factors could facilitate the development of new surveillance guidelines in patients taking olanzapine. We recommend that the guidelines of using and monitoring olanzapine need to be reconsidered.
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EW439

Utilization of psychotropic drugs in Europe: Why is Portugal such a particular case?

T. Alves-dos-Reis[1,2,*], M.A. Matias[3]
[1] *Hospital do Espírito Santo de Évora, Psiquiatria e Saúde Mental, Évora, Portugal*
[2] *NOVA Medical School Faculdade Ciências Médicas, Mental Health, Lisbon, Portugal*
[3] *Nova School of Business and Economics, Universidade Nova de Lisboa, Business and Economics, Lisbon, Portugal*
* *Corresponding author.*

Introduction Psychotropic drugs are among the most utilized medications in Europe.
Objectives To perform an international comparison of the utilization trends of antidepressants, anxiolytics, hypnotics and sedatives (AHS).
Methods We used data from the Organization for Economic Cooperation and Development (OECD). We used the World Health Organization's Defined Daily Dosage (DDD) per 1000 inhabitants per day (DHD) methodology. We performed a general comparison between 14 European countries and a more detailed comparative analysis between Portugal, Italy, Spain and Germany. These

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countries were selected according to the following criteria: similar 12-month prevalence of mental health disorders, similar results for negative mental health (SF-36 questionnaire) and similar standardized death rates for suicide.

Results Portugal had the highest overall utilization of antidepressants and AHS in 2011, amounting to 110.7 DHD, and the highest increase in utilization of AHS (1.8%) from 2003 and 2011. Concerning antidepressants, Portugal had the third highest utilization of these drugs in 2011 (78.3 DHD). Regarding the more detailed comparative analysis, utilization of AHS was still significantly higher in Portugal. Considering antidepressants, Portugal experienced an increasing utilization, which grew by approximately 11.4% from 2003 and 2008. From 2009 onward the utilization increased but at a slower pace.

Conclusion The very high utilization of these drugs, especially of AHS, is a worrying fact since this might indicate an inadequate treatment choice for anxiety and depressive disorders. Further research is needed to better understand the relationship of these findings with regulations concerning utilization of psychotropic drugs and compliance with best medical practices between distinct European countries.

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EW440

Blonanserin augmentation in patients with schizophrenia – who is benefited from blonanserin augmentation?: An open-label, prospective, multicenter study

Y.S. Woo[1,*], J.E. Park[2], D.H. Kim[3], I.K. Sohn[2], T.Y. Hwang[4], Y.M. Park[5], D.I. Jon[6], J.H. Jeong[7], B.H. Yoon[8], W.M. Bahk[1]
[1] *Yeouido St. Mary's Hospital, psychiatry, Seoul, Republic of Korea*
[2] *Keyo Hospital, Keyo Medical Foundation, psychiatry, Uiwang, Republic of Korea*
[3] *Chuncheon Scared Heart Hospital, psychiatry, Chuncheon, Republic of Korea*
[4] *Yong-in Mental Hospital, psychiatry, Yong-in, Republic of Korea*
[5] *Ilsan Paik Hospital, psychiatry, Goyang, Republic of Korea*
[6] *Sacred Heart Hospital, psychiatry, Anyang, Republic of Korea*
[7] *St. Vincent's Hospital, psychiatry, Suwon, Republic of Korea*
[8] *Naju National Hospital, psychiatry, Naju, Republic of Korea*
* *Corresponding author.*

Introduction Evidences for antipsychotics augmentation for schizophrenic patients with suboptimal efficacy have been lacking although it has been widespread therapeutic strategy in clinical practice.

Objectives The purpose of this study was to investigate the efficacy and tolerability of blonanserin augmentation with an atypical antipsychotics (AAPs) in schizophrenic patients.

Methods A total of 100 patients with schizophrenia partially or completely unresponsive to treatment with an AAP recruited in this 12-week, open-label, non-comparative, multicenter study. Blonanserin was added to existing AAPs which were maintained during the study period. Efficacy was primarily evaluated using Positive and Negative Syndrome Scale (PANSS) at baseline, week 2, 4, 8, and 12. Predictors for PANSS response ($\geq$ 20% reduction) was investigated.

Results The PANSS total score was significantly decreased at 12 weeks after blonanserin augmentation (-21.0 ± 18.1, $F = 105.849$, $P < 0.001$). Response rate on PANSS at week 12 was 51.0%. Premature discontinuation was occurred in 17 patients (17.0%) and 4 patients among them discontinued the study due to adverse events. Nine patients experienced significant weight gain during the study. Response to blonanserin augmentation was associated with severe (PANSS > 85) baseline symptom (OR = 10.298, $P = 0.007$) and higher dose (> 600 mg/day of chlorpromazine equivalent dose) of existing AAPs (OR = 4.594, $P = 0.014$).

Conclusions Blonanserin augmentation improved psychiatric symptoms of schizophrenic patients in cases of partial or non-responsive to an AAP treatment with favorable tolerability. Patients with severe symptom despite treatment with higher dose of AAP were benefited from this augmentation. These results suggested that blonanserin augmentation could be an effective strategy for specific patients with schizophrenia.

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EW441

Nicotinic acetylcholine receptor antagonists for treatment-resistant depression: A meta-analysis

W.M. Bahk[1,*], Y.S. Woo[1], H.J. Seo[1], B.H. Yoon[2], D.I. Jon[3], Y.J. Kwon[4], K.H. Lee[5], K.J. Min[6], S.Y. Lee[7], H.R. Wang[1]
[1] *Yeouido St. Mary's Hospital, psychiatry, Seoul, Republic of Korea*
[2] *Naju National Hospital, psychiatry, Seoul, Republic of Korea*
[3] *Sacred Hospital-Hallym University, Psychiatry, Anyang, Republic of Korea*
[4] *Soonchunhuang University, psychiatry, Cheonan, Republic of Korea*
[5] *Dongguk University, psychiatry, Gyeongju, Republic of Korea*
[6] *Chung-Ang University, psychiatry, Seoul, Republic of Korea*
[7] *Wonkwang University, psychiatry, Iksan, Republic of Korea*
* *Corresponding author.*

Objective Emerging preclinical and clinical evidence suggests a potential role of nicotinic acetylcholine receptors in the pathophysiology of depression. Several clinical trials have investigated the efficacy of nicotinic acetylcholine receptor antagonists in treatment-resistant depression. We performed this meta-analysis to investigate whether nicotinic acetylcholine receptor antagonists significantly improve symptoms in patients with major depressive disorder who have an inadequate response to standard antidepressant therapy.

Methods A comprehensive literature search identified 6 randomized controlled trials. These 6 trials, which included 2067 participants, were pooled for this meta-analysis using a random-effects model.

Results Nicotinic acetylcholine receptor antagonists failed to show superior efficacy compared to placebo in terms of the mean change in the Montgomery-Asberg Depression Rating Scale (MADRS) score [mean difference = –0.12 (95% CI = –0.96 to 0.71); response rate (risk ratio [RR] = 0.92 (95% CI = 0.83 to 1.02)); and remission rate [RR] = 1.01 (95% CI= 0.83 to 1.23)].

Conclusion This meta-analysis failed to confirm preliminary positive evidence for the efficacy of nicotinic acetylcholine receptor antagonists in treatment-resistant depression. Further studies investigating the efficacy of various alternative treatment strategies for treatment-resistant depression will help clinicians to better understand and choose better treatment options for these populations.

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