

## EW03

### Predictors for readmission within one year after discharge from an alcohol rehabilitation program

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**Introduction** Alcohol use disorders have been associated with an increased risk of frequent readmissions. This study aimed to examine factors that contribute to the risk for readmission within one year after discharge from an alcohol rehabilitation program.

**Methods** Rehospitalization status was assessed for all patients with an alcohol use disorder as primary diagnosis ( $n = 468$ ) admitted to our inpatient unit between July 1, 2012, and June 30, 2014. All patients were followed up for one year after their first hospitalization (index hospitalization) within this period. Time to readmission within one year after discharge was measured using the Kaplan–Meier method. Risk factors for readmission were examined using Cox proportional hazard regression models. Three set of variables were selected to be included in the analyses:

- demographic features at time of admission of index hospitalization;
- comorbid conditions at time of admission of index hospitalization;
- treatment-related variables in relation to the index hospitalization including observer-rated outcome measures.

**Results** Readmissions within one year after discharge from an alcohol rehabilitation program as well as the corresponding time to readmission were linked to higher numbers of previous hospitalizations and the presence of comorbid opioid use disorders.

**Conclusion** Higher numbers of past treatments for AUD are indicators for a chronic course of the disorder, which, in turn, increase the risk of further relapses. Our findings further confirmed previous findings suggesting high rates of comorbidity among alcohol and opioid use disorders, and their link with poorer clinical outcomes.

**Keywords** Alcohol use disorder; Alcohol rehabilitation program; Readmission; Survival analysis

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

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## EW04

### Interactions between mephedrone and alcohol in humans:

#### Cardiovascular and subjective effects

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**Introduction** Mephedrone is a synthetic cathinone derivative included in the class of “New-Novel Psychoactive Substances”. Synthetic cathinones are marketed as “bath salts” or “plant food” and gained notable popularity for similar effects to 4-methylenedioxymethamphetamine (MDMA, ecstasy), or amphetamines. Mephedrone is commonly consumed simultaneously with alcohol.

**Objectives and aims** The aim of the present study was to evaluate the interactions between mephedrone and ethanol in humans.

**Methods** Twelve healthy male, recreational users of psychostimulants participated as outpatients in four experimental sessions. They received a single oral dose of mephedrone (200 mg) and alcohol (0.8 g/kg), mephedrone placebo and alcohol (0.8 g/kg), mephedrone (200 mg) and placebo alcohol, and both placebos. Design was double-blind, double-dummy, randomized, cross-over and controlled with placebo. Study variables included: vital signs (blood pressure, heart rate, temperature, and pupil diameter), subjective effects (visual analogue scales-VAS, ARCI-49 item short form, and VESSPA questionnaire).

**Results** The combination produced an increase in the cardiovascular effects of mephedrone and induced more intense feeling of euphoria and well-being in comparison to mephedrone and alcohol. Mephedrone reduced the drunkenness and sedation produced by alcohol.

**Conclusions** These results are similar to those obtained with the combination of other psychostimulants as amphetamines and MDMA. Abuse liability of the combination is greater than induced by mephedrone.

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## EW05

### The synthetic cannabinoids: JWH, four years of analysis

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**Introduction** Since 2004, herbal mixtures for smoking use have been sold under the generic brand “Spice”. Many of them contain synthetic cannabinoids (agonists of the cannabinoid receptors). JWH-018 was one of the first spice drugs. There is no scientific evidence of their effects on humans, except cases of intoxications and users opinions.

**Objective** The present study describes the presence of the synthetic cannabinoids JWH's and their characteristics in the samples delivered for analysis to the harm reduction NGO Energy Control from 2010 to 2014 in Spain.

**Methods** From 15,814 samples analyzed from 2010 to 2014, those containing synthetic cannabinoids JWH's were studied ( $n = 47$ ). Analysis was done by gas chromatography–mass spectrometry.

**Results** From these 47 samples containing JWH, 55% were delivered as “legal highs” ( $n = 21$ ) and 44% as JWH. Most common presentations were powder 47% and herbals 32%. Samples containing JWH 45% ( $n = 21$ ) were mixed with more than one kind of JWH or were adulterated and other active principles were found 28% ( $n = 13$ ) JWH-018, 11% ( $n = 5$ ) JWH-210, 8% ( $n = 4$ ) JWH-081 and

the 6% WH-250 ( $n=3$ ). Origin of the sample was Catalunya 23% ( $n=11$ ), other provinces of Spain 46% ( $n=22$ ); other EU countries 23% ( $n=11$ ) and internet-unknown country 8% ( $n=8$ ). From the ( $n=47$ ) samples, were delivered ( $n=16$ ) in 2012, ( $n=12$ ) in 2013, ( $n=11$ ) in 2011, ( $n=3$ ) in 2010 and ( $n=3$ ) in 2014.

**Conclusion** JWH'S represent a low percentage of new psychoactive substances analyzed. Its presence in the market seems decreasing.

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

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## EW06

### Is lithium implicated in tobacco addiction?

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**Introduction** Tobacco is a source of mineral elements that can affect human health in various ways, such as lithium, which is used as a psychiatric medication. Lithium salts are used as mood-stabilizing drugs and indicated in the treatment of manic-depressive psychosis.

**Objective** Studying the lithium content in tobacco over the smokers' plasma content and evaluate the potential role of lithium in tobacco addiction.

**Methods** A total of 18 different tobacco products (cigarettes, smokeless and water pipe tobacco) and 125 plasma samples (45 from smokers, 10 from ex-smokers and 70 from non-smokers) were collected to determinate the lithium content. Tobacco samples were digested with nitric acid and lithium concentration was measured by inductively coupled plasma-optical emission. The collected plasma samples were diluted 1/10 with a nitric acid solution and the lithium level was measured by inductively coupled plasma-mass spectrometry.

**Results** The average concentration of lithium in the cigarettes ( $16.59 \pm 0.59 \mu\text{g/g}$ ) was higher compared to those in the smokeless tobacco ( $8.39 \pm 4.44 \mu\text{g/g}$ ) and in the water pipe tobacco ( $6.13 \pm 6.32 \mu\text{g/g}$ ) but with no significant difference ( $P=0.182$ ). For plasma lithium levels, there was no significant difference ( $P=0.186$ ) between smokers and non-smokers ( $6.20 \pm 6.24$  vs.  $4.98 \pm 6.20 \mu\text{g/g}$ ). However, a significant negative correlation was noted between plasma and the lithium content in tobacco products ( $r=-0.435$ ;  $P=0.04$ ). The lithium plasma level was significantly and negatively correlated with the dependence score ( $r=-0.316$ ;  $P=0.031$ ).

**Conclusion** The correlation between plasmatic lithium and dependence score in smokers suggests that lithium would be involved in tobacco addiction probably through his regulating action of mood.

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## EW08

### Optimization of therapy clinic-immunological disorders with heroin addiction

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The immune defect can be found in all forms of addiction (Frank, 2004). These data determine the use of funds in immunotropic heroin addiction.

**Objective** To study the effectiveness of antidepressant sevpram (citalopram) and its combination with galavit (imunomodulyator) on a background of standard pharmacotherapy in heroin addiction. To evaluate the immune status of the following methods:

- evaluation of lymphocytes (CD4), (CD8) with monoclonal antibodies in cytotoxicity assay;
- determination of serum immunoglobulin classes A, M, G performed by turbidimetric analysis;
- the concentration of the CIK (circulating immunokompleks) was determined by precipitation with polyethylene glycol.

Patients of the 1st group was administered into the sevpram 10 mg/day in combination with galavit (25 mg daily); group 2 – only the standard therapy (ST).

**The results of research** As a result of the treatment in the first group showed an increase of 34.8% the number of immunoglobulin A, which however does not reach the level of healthy people and reducing the number of circulating complexes by 13.8%, which also indicates the normalization of this index. The first group – a significant improvement of immunological parameters increase of 3 indicators (CD4, CD8, CD4/CD8) and a decrease in the CIK. Analysis of changes in indicators Hamilton Rating Scale for Depression, also notes a reduction in the symptoms scores.

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## EW09

### Exercise addiction: Identification and prevalence in physically active adolescents and young eating disordered patients

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**Introduction** Exercise addiction is characterized by increasing exercise amounts, withdrawal symptoms and lack of control. Eating disorders and exercise addiction often appear together, but only eating disorders are recognized as diagnoses. However, exercise addiction can exist independently from eating disorders and can be as harmful as any other addictive behavior.

**Objectives** The Exercise Addiction Inventory (EAI) is useful to identify exercise addiction symptoms in adults and prevalence rates of 3–10% have been found. But a scale for adolescents does not yet exist even though behavioral addictions seem to be more prevalent among young people.

**Aims** To develop an instrument for identification of exercise addiction in adolescents and to estimate the prevalence and negative consequences.

**Methods** We developed a Youth version of the EAI and screened 383 adolescents in sport settings and 69 patients from an eating disorder department (age range 11–20 years).