# **Depressive Disorders 03**

#### EPP0431

# Healthcare costs and productivity losses in treatmentresistant depression in Finland

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**Introduction:** Due to its relatively high prevalence and recurrent nature, depression causes a major burden on healthcare systems and societies.

**Objectives:** To investigate healthcare resource utilization and costs associated with treatment-resistant depression (TRD) compared with non-TRD depression in Finland.

Methods: Of all patients aged 16-65 years and diagnosed with depression in Finland during 2004-2016, persons with TRD (N=15 405) were identified from nationwide registers and matched 1:1 with comparison persons with depression but no TRD. TRD was defined as initiation of a third treatment trial after having failed two pharmacological treatment trials. Follow-up period covered five years after TRD or corresponding matching data (until end of 2018). Healthcare resource utilization was studied with negative binomial regression and average excess costs of TRD with generalized estimating equations, by adjusting for baseline costs, comorbidity and baseline severity of depression. **Results:** Persons with TRD (mean age 38.7, SD 13.1, 60.0% women) had more healthcare utilization and work disability (sick leaves and disability pensions), adjusted incidence rate ratio for work disability days was 1.72 (95% CI 1.64-1.80). This resulted in higher total costs for persons with TRD, adjusted mean difference 7572 (95% CI 7215-7929) EUR per patient per year, higher productivity losses (due to sick leaves and disability pensions, mean difference 5296, 95% CI 5042-5550) and direct healthcare costs (2002, 95% CI 1853-2151) compared with non-TRD patients. Mean difference was highest during the first year after TRD (total costs difference 11760, 95% CI 11314-12206). Conclusions: Treatment-resistant depression is associated with a significant cost burden.

**Disclosure:** This study was funded by Janssen-Cilag Finland and the Finnish Ministry of Social Affairs and Health through the developmental fund for Niuvanniemi Hospital. ML was partly funded by personal grants from the Finnish Medical Foundation and Emil Aaltonen fou **Keywords:** treatment resistant depression; healthcare utilization; cost; Depression

#### EPP0430

# The identification of treatment-resistant depression patients in electronic health records, a retrospective cohort study in China

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**Introduction:** Previous Electronic Health Records (EHR) based studies adopted various definitions in identifying Treatment-Resistant Depression (TRD) patients. There is a lack of similar attempts among Chinese population which limits the understanding of TRD in China.

**Objectives:** Assess TRD identification using EHR from a major psychiatric hospital in China.

**Methods:** This study utilized a retrospective Major Depressive Disorder (MDD) cohort of patients who newly initiated pharmaceutical treatment (2010-2018); follow-up was ended upon 1-year or treatment discontinuation ( $\geq$ 120d without treatment). TRD was first identified based on common clinical definition of two prior regimen failures (change of regimen) with 4-week as regimen adequacy threshold (Def1). Alternative adequacy thresholds of 2-week and 6-week were applied. Based on Def1 (4-week), at least 3 distinctive regimens were additionally required in TRD identification (Def2). Further, a data-driven definition (Def3) based on drug count as having  $\geq$ 3 antidepressants or  $\geq$ 1 antipsychotic within 1 year was considered (Cepeda et al., 2018).

**Results:** From 12257 MDD patients included in the cohort, Def1 identified 633 (5.2%) TRD cases, whereas regimen adequacy thresholds of 2-week and 6-week identified 1772 (14.5%) and 61 (0.5%) cases, respectively. Further, Def2 identified 261 (2.4%) TRD cases. Finally, Def3 yielded 2449 (20.0%) TRD cases, including 1966 exclusive cases that were not identified by Def1.

**Conclusions:** This study showed different definitions for TRD identification had considerable impact on the number of patients identified among Chinese population, obscuring the comparability among EHR-based TRD studies. As first step, we found the criteria of regimen adequacy as major contributor to the observed variability in China.

Disclosure: No significant relationships.

Keywords: Treatment-resistant depression; Elctronic Health Records (EHR); Epidemiology; psychiatry

#### EPP0431

# Prediction of post-partum depression and anxiety based on clinical interviews and symptom self-reports of depression and anxiety during pregnancy.

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**Introduction:** The tools used to evaluate mental health during pregnancy matter. Their efficacy in identifying symptom severity enables better predictions of postpartum mental health. The Mother & Youth: Research on Neurodevelopment & behaviour (MYRNA) cohort is an NIH funded longitudinal cohort from

Sherbrooke, Canada studying the effects of pregnant women's mental health.

**Objectives:** We examine which mental health tools will better gauge depression and anxiety during pregnancy based on predicting postpartum outcomes. Our hypothesis is that an approach combining a clinical interview with self-report questionnaires may predict mental health in postpartum women.

**Methods:** Participants' mental health is evaluated by the SCID-5-RV, a lifetime interview administered at 30 weeks and monthly questionnaires including PHQ-9 and GAD-7. Participants are in the depression/anxiety group if they either pass all the criteria in the SCID during pregnancy or have an average PHQ-9 or GAD-7 score greater than 7. The Edinburgh Postnatal Depression Scale (EPDS) and the Perceived Stress Scale (PSS) are the outcome variables.

**Results:** PHQ-9 was correlated with EPDS, r(220)=.38, p<.01, and GAD-7 was correlated with PSS, r(213)=.56, p<.01. SCID results only had a significant effect on PSS, F(3,220)=3.77, p=.01 and not with EPDS, F(3,219)=1.08, p=.36. When the self-report measures and interview were combined significant effects were seen for both the EPDS, F(1,222)=18.71, p<.01 and the PSS, F(1,223)=34.94, p<.01.

**Conclusions:** Preliminary results show significant associations between measures administered during pregnancy and postpartum measures. Prediction models based on classification will be analyzed once more data is collected.

**Disclosure:** No significant relationships. **Keywords:** Depression; Psychometric measures; Anxiety; Postpartum

#### **EPP0433**

### Educational Attainment Inequalities in Depressive Symptoms in More Than 100 000 Individuals in Europe

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**Introduction:** Increasing educational attainment (EA) could decrease the occurrence of depression. We investigated the relationship between EA and depressive symptoms in older individuals across four European regions.

**Objectives:** 1) examine association between EA and depressive symptoms 2) determine, if there is an upper limit to this association 3) explore regional and demographic differences within this relationship across Europe

**Methods:** We studied 108 315 Europeans (54 % women, median age 63 years old) in Europe assessing EA and depressive symptoms. Logistic regression estimated the association between EA and depressive symptoms, adjusting for sociodemographic and health-related factors; testing for sex/age/region and education interactions.

**Results:** Higher EA was associated with lower odds of depressive symptoms, independent of sociodemographic and health-related

factors. A threshold of the lowest odds of depressive symptoms was detected at the first stage of tertiary education (OR 0.60; 95% CI 0.55-0.65; p<0.001; relative to no education). Central and Eastern Europe showed the strongest association (OR for high vs. low education 0.37; 95% CI 0.33-0.40; p<0.001) and Scandinavia the weakest (OR for high vs. low education 0.69; 95% CI 0.60-0.80; p<0.001). The association was strongest amongst younger individuals. There was a sex and education interaction only within Central and Eastern Europe. **Conclusions:** Level of EA is reflected in later-life depressive symptoms, suggesting that supporting individuals in achieving EA, and considering those with lower EA at increased risk for depression, could lead to decreased burden of depression across the life-course. Further educational support in Central and Eastern Europe may decrease the higher burden of depressive symptoms in women.

**Disclosure:** No significant relationships. **Keywords:** education; Depression; Epidemiology; Europe

### EPP0434

# Clinical validation of the self-rated 6-item Hamilton Depression Rating Scale among inpatients

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**Introduction:** Measurement-based care (i.e., the systematic use of rating scales to guide clinical decision-making) has shown great promise in the treatment of major depression in clinical trials. Unfortunately, measurement-based care has not yet gained ground in clinical practice, possibly because clinician-rated scales are time-consuming and limited by the availability of trained raters. Hence, brief and valid self-rated scales (questionnaires) may serve as an alternative or supplement to clinician-rated scales. The self-rated 6-item Hamilton Depression Rating Scale (HAM-D6-SR) has shown some promise in this regard, but its validity among inpatients remains unclear.

**Objectives:** The objective of this study is to evaluate the criterion validity and responsiveness (sensitivity to change) of the HAM-D6-SR among inpatients using the clinician-rated 17-item Hamilton Rating Scale for Depression (HAM-D17) as gold standard reference.

**Methods:** Inpatients with depression will complete the HAM-D6-SR twice during admission (at least one week between the two self-ratings). At both occasions, the patients will subsequently be rated on the HAM-D17 by trained raters, who are blind to the HAM-D6-SR ratings. The agreement between the HAM-D6-SR and the HAM-D6 extracted from the HAM-D17 will be evaluated using intra-class correlation.

**Results:** A total of 100 inpatients will be recruited for the study. Data collection is ongoing, and the results of the study will be presented at the 2022 EPA meeting.

**Conclusions:** If the agreement between the HAM-D6-SR and the HAM-D6 extracted from the HAM-D17 is satisfactory, the HAM-D6-SR could inform decision-making in the treatment of depression.

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