Introduction: Depression in pregnancy is common and often requires treatment with antidepressant drugs. Most antidepressants are metabolized by the cytochrome P450 system (CYP), in particular CYP2C19 and -2D6, both of which are genetically polymorphic. Additionally, the activity of these enzymes is altered during pregnancy.

Objectives: To investigate pharmacogenetic variability regarding CYP2C19 and -2D6 in pregnant users of antidepressants and treatment outcomes.

Methods: The study population comprises all women born between 1981-1999, who gave birth to at least one child before December 2015 identified from the large Danish population-based iPSYCH2012 case-cohort study sample linked to information on genetic variants, prescription drug use and outcome data. Pharmacogenetic genotypes and phenotypes of CYP2C19 and CYP2D6 will be categorized into poor, (PM), intermediate, (IM), extensive, (EM), rapid (RM) and ultra-rapid metabolizers (RM) using array-based SNP information. Antidepressant drug use and comedication during pregnancy will be assessed based on prescription data. Outcomes include treatment discontinuation, switching and psychiatric hospitalizations. Cox regression analysis will be performed to estimate the hazard ratios comparing the rates of the different outcomes in people with different phenotypes, compared with EM adjusted for a number of confounding factors.

Results: Based on previous research we will be able to identify approximately 6531 pregnant women with a psychiatric history. Among those, we estimate to find 14 PM, 161 IM, 285 EM, 168 RM and 25 UM of CYP2C19, and 27 PM, 218 IM and 408 EM of CYP2D6. Exposure to antidepressants is estimated at 10%.

Conclusions: We expect to be able to present the results at the conference.

Disclosure: No significant relationships.

Keywords: Depression; Antidepressants; pharmacogenetics; Pregnancy

O0108
Pharmacogenetics and antidepressant treatment outcomes in pregnancy: a Danish-population based study

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Introduction: The physical and mental health of women prior to conception can have a significant impact on pregnancy and child outcomes. Given the rising burden of non-communicable diseases, the aim of this analysis was to explore the relationship between mental health, physical health and health behaviour in women planning a pregnancy.

Objectives: To investigate the association between indices of physical and mental health in a large population of women in the UK planning a pregnancy.

Methods: Responses to a preconception health digital education tool provided data on the physical and mental health and behaviour of 131,182 women planning pregnancy. Logistic regression was used to explore associations between mental health and physical health variables. Multiple imputation by chained equations was implemented to handle missing data.

Results: There was evidence for an association between physical and mental health conditions (OR 2.22; 95% CI 2.14, 2.3). There was also an association between having a mental disorder and physical inactivity (OR 1.14; 95% CI 1.11, 1.18), substance misuse (OR 2.4; 95% CI 2.25, 2.55) and less folic acid use (OR 0.89; 95% CI 0.86, 0.92).

Conclusions: There is a need for greater integration of physical and mental healthcare for women in the preconception period, which could support women, including those who wish to conceive, to optimise their health during this time.

Disclosure: No significant relationships.

Keywords: preconception; pregnancy; health behaviour; mental disorder

O0109
Depressive symptoms in the peripartum: incidence and associated characteristics

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Introduction: The peripartum is a period at high risk for the onset of depressive symptoms. The prevalence of peripartum depression (PD) ranges from 6 to 20% and is burdened with high adverse birth outcomes, poor mother-infant bonding, and a high risk for suicidal ideation and attempts. However, PD is underrecognized and consequently undertreated.

Objectives: We aimed at screening depressive symptoms in women during pregnancy and postpartum, and evaluating the socio-demographic and clinical characteristics associated with depressive symptoms.

Methods: 199 women, 55 during pregnancy and 144 in the postpartum period, consecutively admitted to the Perinatal Mental Health Service of Ancona (Italy) were administered a socio-demographic and clinical questionnaire together with the Edinburgh