

## EPP0454

### Study Protocol: Gut microbiota profiles implicated in the onset of autism spectrum disorders in preterm infants: A two-year follow-up study.

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**Introduction:** Preterm infants are at high-risk of developing autism spectrum disorders (ASD). The underlying mechanisms that explain the link between prematurity and ASD are unclear. Perinatal environmental factors may disrupt the gut-brain communication, when the gut microbiome composition is established and brain programming occurs. Therefore, the disruption of the gut-brain axis communication in response to perinatal environmental events may shed light on the association between prematurity and ASD.

**Objectives:** To describe a new research project protocol which aim is to develop a dynamic model of gut microbiota variation in response to environmental factors that modulate the ASD risk in preterm infants.

**Methods:** A two-year prospective observational study will be carried out, in which preterm infants will be assessed at birth, 40th postmenstrual week, at 6, 12, and 24 months of corrected age. Two-hundred preterm infants will be recruited. A comprehensive assessment will be conducted by collecting data on sociodemographic characteristics, medical history, family functioning, neurodevelopment, ASD screening, and diagnosis. Microbiome composition and microbial activity will be determined from feces.

**Results:** The expected results are: i) to characterize ASD since its early manifestations in an at-risk population, allowing an early diagnosis and intervention to improve clinical outcomes; ii) to identify early microbiota biomarkers in order to find potential pathophysiological pathways; iii) to understand the protective and risk factors associated to ASD since perinatal period.

**Conclusions:** A two-year predictive model will be generated based on environmental and gut microbiota variables. This predictive model of ASD would allow prevention, early diagnosis, improvement of prognosis, and personalized treatments in preterm infants.

**Disclosure:** No significant relationships.

**Keywords:** Autism Spectrum Disorders; microbiota; prematurity; follow-up study

## Emergency Psychiatry / Mental Health Care 02

## EPP0456

### Repeat Emergency Visits for Mental Health Patients: Before and during the Covid19 pandemic

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**Introduction:** Frequent users of Emergency Departments (EDs) are a diverse group accounting for disproportionate EDs visits. Psychiatric patients are more likely to visit EDs (Slankamenac, 2020). EDs utilisation by psychiatric patients increased by 4.4% during COVID-19 pandemic.

**Objectives:** to determine frequent users characteristics within an Ottawa University Hospital, and assess Covid19 impact on over-utilization of EDs compared to other hospitals.

**Methods:** Retrospective study of repeat visits characteristics, data extracted from EMR database. Repeat visits defined as no less than 30 days first visit to any EDs. Period of observation: March 1st, 2018 - February 28th, 2021 Results.

**Results:** 64% EDS visits for MH, 35% for addictions. More men (57%), age groups: 16-34 y.o. (41%), 34-64 y.o. (51%), 65 +y.o. (8%). Top presenting reasons: suicidality, self-harm, depression (40.5%). Anxiety, situational crisis (16%), bizarre behavior (12%).

Most prevalent diagnoses: schizophrenia (28.7%), stress and anxiety (25.2%), personality disorders (13.5%) and depressive episode (10.6%). Only 35.1% admitted after repeat ED visits, 35.1% came by ambulance. Increase during peak pandemic exceeding 20%. Clearly pandemic created more pressures for MH services needs.

**Conclusions:** Schizophrenia and personality disorders made most prevalent diagnostic groups. Even when patients are in acute needs, they do not always require hospitalization. Investigating what MH conditions that got more stressed by the Covid19 pandemic will be of interest.

**Disclosure:** No significant relationships.

## EPP0457

### Safety hazards in clinical practice of seclusion in psychiatric care

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**Introduction:** Seclusion is part of the clinical practice in European psychiatric hospital care with the aim to maintain the safety of patients and staff. Adverse events and harm have been reported for patients and staff resulting from seclusion. Safety hazards, which are the prerequisite of adverse events, can be identified using video observation methods. Identifying safety hazards can be used to prevent adverse events and improve the quality of psychiatric care.

**Objectives:** To identify safety hazards during seclusion in psychiatric hospital care.

**Methods:** Descriptive design with non-participant video-observation of seclusion care practice. Data consisted of video recordings (n = 36) from six wards of one psychiatric hospital in Finland. The data were analysed with inductive thematic analysis.