# **CHRD 2024: Abstract Submission Form**

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**Role in the project** Design Perform Experiments Analyze Data Write Abstract Presenter Status Non-Trainee

Research Category Community Health / Policy

#### Title

Gabapentin utilization and indications in pregnant people in Manitoba, Canada

## Background

Given the limited safety data of gabapentin in pregnancy, it is pivotal to explore how gabapentin use in pregnancy has changed over time in terms of utilization trends, indications, and prescribing patterns.

#### Objective

To examine the trends of gabapentin utilization, prescribing patterns, and indications in pregnant people in Manitoba during the last 20 years.

#### Methods

This cohort study utilized administrative health databases in Manitoba, Canada, covering the period from April 1, 1999, to March 31, 2019, and adhered to the STROBE Checklist for observational studies. The study was population-based and included all pregnant individuals residing in Manitoba during the study period.

Exposure to gabapentin was defined as having at least one gabapentin prescription filled during pregnancy. The primary outcomes were the annual trends in gabapentin utilization and the specific indications for its prescription in each pregnancy period. Descriptive statistics were applied to assess the distribution of gabapentin prescriptions by prescriber specialty.

#### Results

There were 870 gabapentin exposed pregnancies in Manitoba between the years 1999 and 2019 in Manitoba. Gabapentin use in pregnancy substantially rose by 38.6-fold over the years and its use was predominant in the first trimester. Trend analysis revealed a significant increase in the 5-year utilization rates in all three trimesters. Pain was the most frequent indication (32.8%), followed by mood and personality disorders (17.4%). Among pain indications, back, joint, and soft tissue disorders (66.7%) were the most common. Among mood and personality disorders, anxiety (70.4%) was the most common. Prescribers were predominantly general practitioners (77.8%).

#### Conclusion

Gabapentin use in pregnant people in Manitoba had risen significantly over the past twenty years and it was predominantly used in the first trimester. Gabapentin is being heavily prescribed for pain and mood disorders, and it is often prescribed by general practitioners. The utilization data and prescribing patterns can help inform future policymakers and clinicians on the importance of balancing the risks and benefits of using gabapentin for off-label conditions in pregnancy, thus translating into better outcomes for patients and their off-springs. The limited knowledge of gabapentin safety coupled with its increased use necessitates the need for future safety studies on the outcomes of gabapentin use in pregnancy.

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