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The Use of Long-Acting Injectable Antipsychotic Therapy for Schizophrenia

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Introduction

Antipsychotic medications form the cornerstone of schizophrenia treatment. However, only a minority of patients adhere to their initial antipsychotic regimen. It's expected that Long-Acting Injectable (LAI) antipsychotics improves patient adherence to treatment, however previous research comparing the use of first generation LAI's against oral antipsychotics reported results that were inconclusive.

Objectives and Approach

Explore the effectiveness of the use of LAI's in the delivery of mental health services in Alberta.

Using linked data from AHS Analytics:

- Physician claims
 - National Ambulatory Care Reporting System (NACRS),
 - Discharge Abstract database (DAD)
 - Pharmacy Information Network (PIN)
 - Alberta Provincial Registry data
1. Define a cohort of patients on antipsychotic medications.
 2. Explore and contrast outcomes related to the use of LAIs against other antipsychotic medication types. Specifically using linked data to define:
 - Treatment Adherence
 - Utilization of LAI vs. other medication
 - Demographic differences
 - Outcomes pre- and post-LAI treatment

Results

A patient cohort was established containing only cases from April 1, 2013 to March 31, 2015. Additional data was used to perform a two year washout and a one year follow-up.

Case and medication definitions were determined by a team of psychiatric clinicians. Patient comorbidity information was extracted using previously validated methods.

Overall, 6349 incident cases were identified.

Preliminary analysis indicate:

- Overall patient cohort is older than expected
- Use of additional medication types is correlated with greater health services utilization after diagnosis
- Patients on only oral medications appear to have lower treatment adherence
- Males seem to have higher treatment adherence than females
- No significant differences were found between patients with rural vs. urban postal codes

Conclusion/Implications

We faced significant challenges when defining cases, medication use and outcomes. However, the linkage of a large number of data sources gives us powerful and multi-faceted insight into the use of antipsychotic medication use in Alberta. Future work will include work on definition validations and deeper analysis of outcomes.