

ABSTRACT SUBMISSION FORM

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SEX + GENDER

Exploring the role of sex and gender on health research



CHR D 2020: Abstract Submission Form

Submitter Name

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Title

Asthma Visit Comparison of Manitoba CHIL D Study with Source Population and Validation of Administrative Asthma Definitions in Preschool Children

Background

Asthma is multifactorial and affects a quarter of Canadian children. Generalizability of cohort study asthma outcomes is affected by how well they represent their source population. Validated administrative definitions of asthma in preschool children improve the ability to compare asthma outcomes between general-population cohort studies.

Objective

We compared incident asthma to age 3 years for Manitoba CHIL D Study participants and the population from which they were recruited. We also validated administrative definitions of asthma using CHIL D physician asthma diagnoses as the gold standard.

Methods

We compared first healthcare visits for asthma to age 3 years of life defined using administrative data housed at the Manitoba Centre for Health Policy. CHIL D participants were compared with all children born in Winnipeg and southern Manitoba from 2009-2011. Asthma visits were identified from ICD-9CM, ICD-10CA and Emergency Department Information System codes. Medication dispensing was determined from Manitoba Drug Program Information Network records. We calculated sensitivity, specificity, positive predictive value (PPV) and Cohen's Kappa.

Results

After adjusting for biological sex, birth year and income quintile, the percent of children with 1 asthma hospitalization or 2 outpatient asthma visits within 2 consecutive years was similar for CHIL D participants and southern Manitoba children from 0-3.5 years (11.5% versus 13.6%, respectively, $p=0.81$) and from 2.5-3.5 years (6.1% versus 6.4%, respectively, $p=0.74$). CHIL D diagnosis of asthma or possible asthma was 12.3% at 3 years. The administrative asthma definition with the highest Cohen's Kappa (0.43) was 1

asthma hospitalization or outpatient asthma visit plus 2 dispensed asthma medications; 1 asthma hospitalization or 2 outpatient asthma visits within 2 consecutive years had the highest specificity (97.1%) and PPV (57.6%).

Conclusion

Incident asthma to age 3 years was similar for Manitoba CHLD participants and Manitoba children from which they were recruited. Administrative asthma definitions had high specificity and moderate PPV.

Theme:

Clinical

Do you have a table/figure to upload?

No

Are you willing to participate in Goodbear's Den?

Yes

Presenter Status:

Undergraduate Students

What was your role in the project?

Collected data, wrote abstract

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