

# Congenital lung malformation patients experience respiratory dysfunction after resection

## A population-based cohort study

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### INTRODUCTION

The benefit of elective resection of asymptomatic congenital lung malformations continues to be debated.

### AIM

Our study aimed to determine if, after resection, congenital lung malformation patients experienced more respiratory dysfunction by 10 years of age compared to controls without a history of congenital lung malformation.

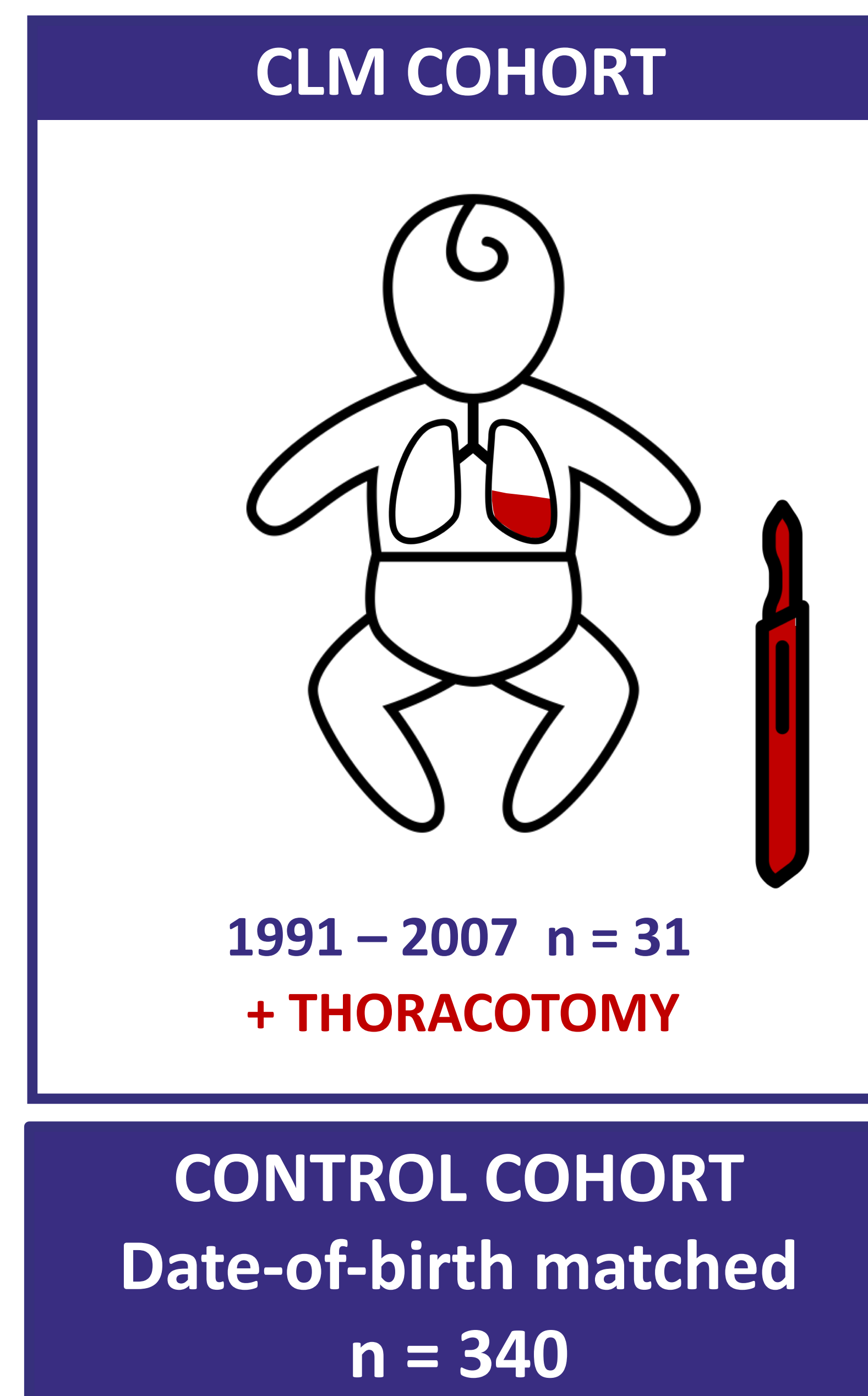
### METHODS

Retrospective cohort study (1991-2007)

Winnipeg's Surgical Database of Outcomes and Management (WiSDOM)

10:1 date-of-birth matched control group was generated from a population-based administrative data repository.

International Classification of Disease codes and Anatomical Therapeutic Chemical classifications to assess outcomes



### RESULTS

Risk: Risk ratio  
Rate: Relative rate

Outcomes

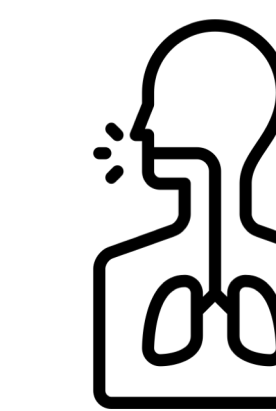
\* p<0.05  
\*\* p<0.001

0-5 years of age

5-10 years of age

#### Acute respiratory infections

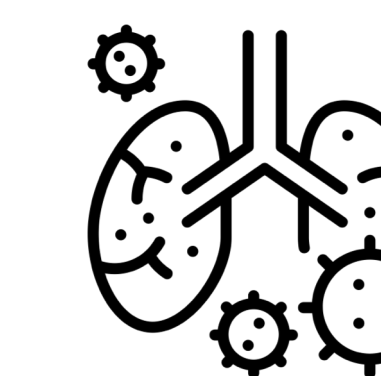
Risk 1.00 =  
Rate 1.49\*\* ↑



Risk 1.04 =  
Rate 2.09\*\* ↑

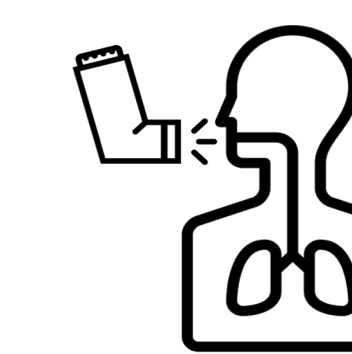
#### Pneumonia

Risk 2.64\* ↑  
Rate 15.51\*\* ↑

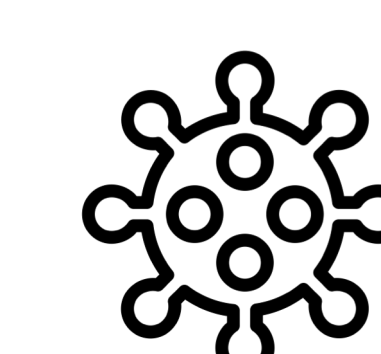


Risk 3.69\* ↑  
Rate 11.31\*\* ↑

#### Asthma



#### Influenza



#### Medication



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### CONCLUSION

Our data demonstrate that after resection of a congenital lung malformation, children are at greater risk of respiratory diseases in the first 10 years of life compared to the general population. Therefore, parental counselling should include the risk for ongoing pulmonary dysfunction after surgery.

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