

Impact of the Transition from Pediatric to Adult Medical Care on Health Service Utilisation in Inflammatory Bowel Disease (IBD)

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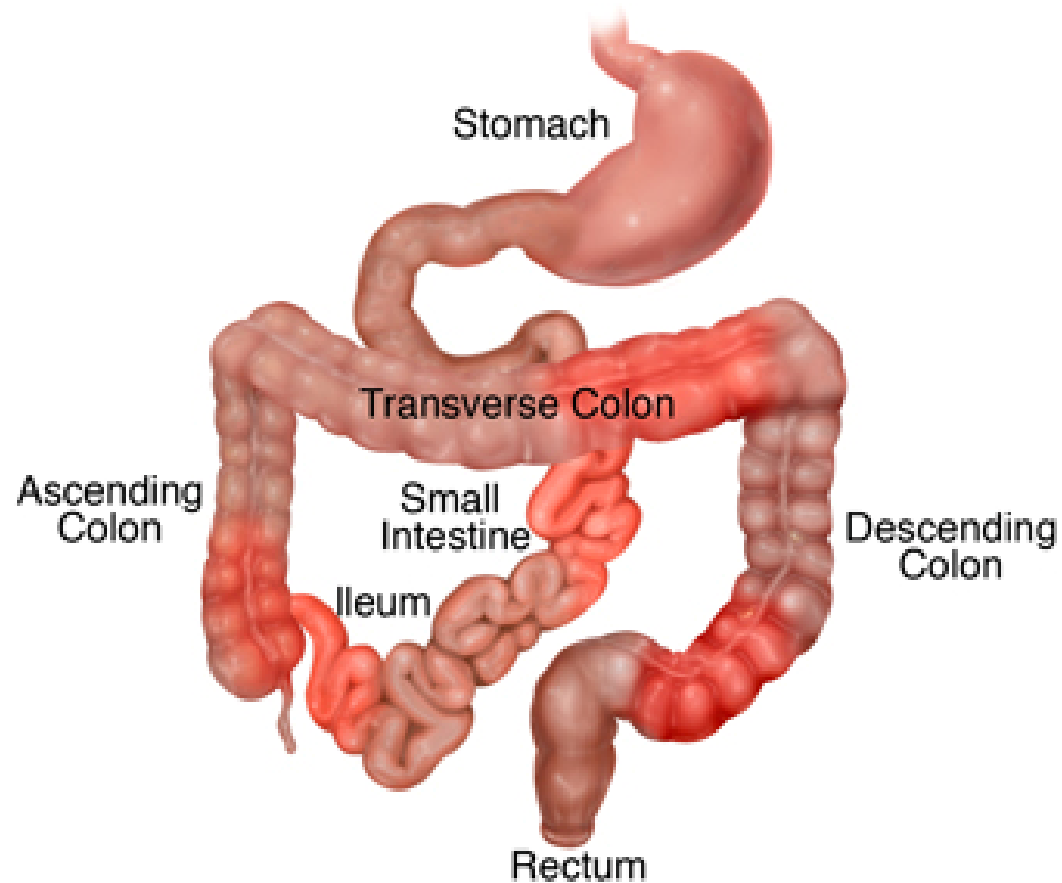


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INFLAMMATORY BOWEL DISEASE (IBD)

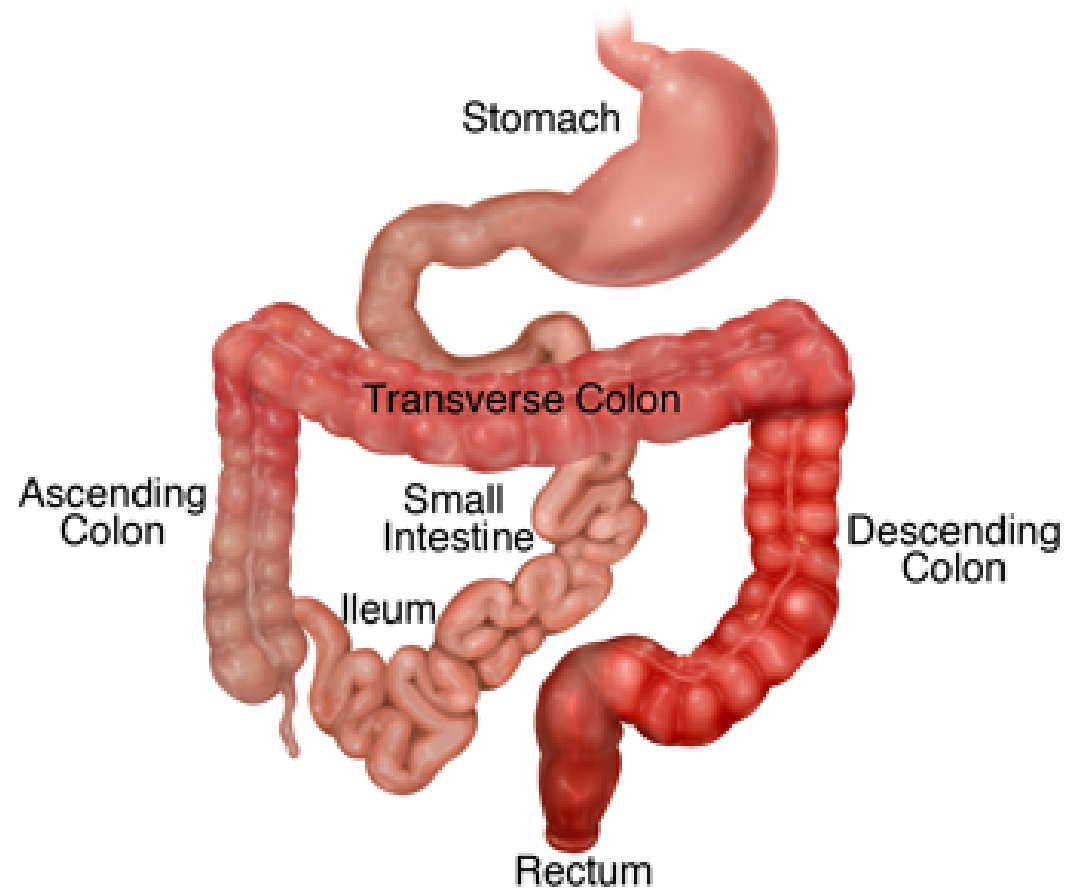
- Chronic, inflammatory condition of the gastrointestinal tract
- Unknown etiology
- No cure, lifetime
- Prevalence of IBD in Canada: 0.7%
- Paediatric-onset incidence increased

Crohn's Disease



Source: crohnsandcolitis.com.au

Ulcerative colitis



Source: crohnsandcolitis.com.au

TRANSITION

- Multi-facet active approach
 - Preparation
 - Actual transfer period
- Importance of smooth transition

STUDY PURPOSE

- Assess difference in health services utilization before and after the transfer from pediatric to adult care

METHODS

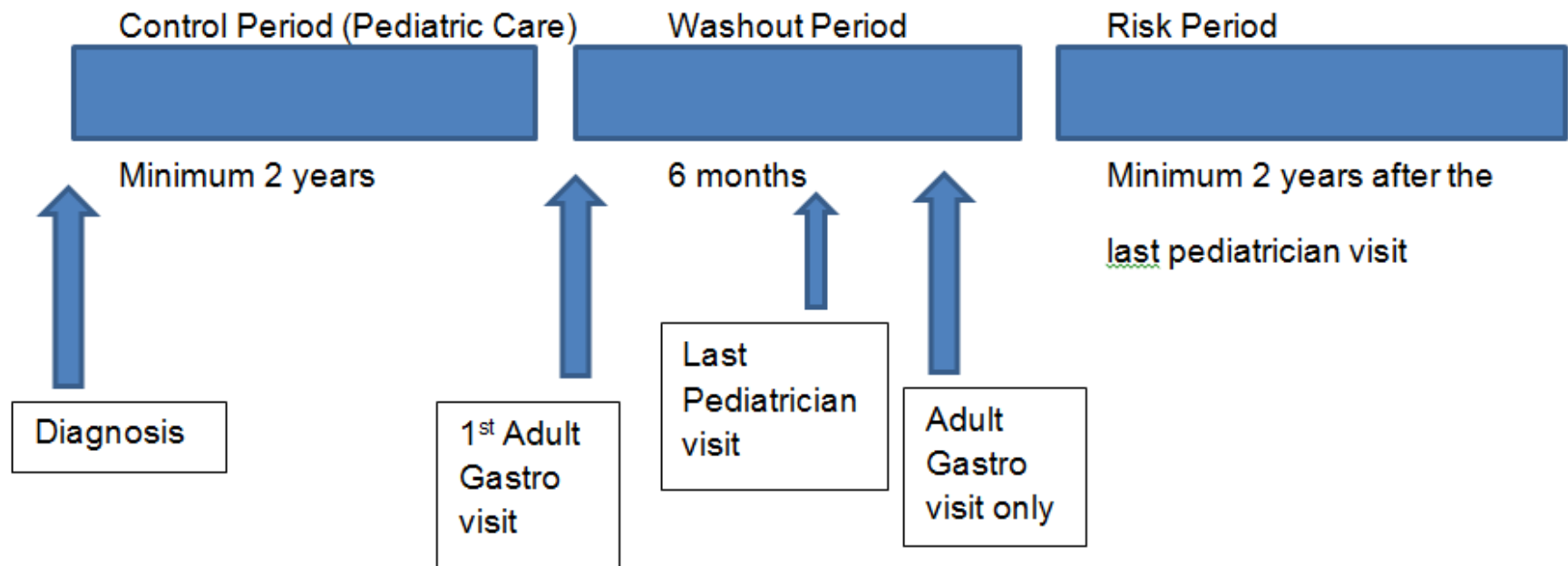
DATA SOURCES

- Ontario health administrative data
 - The Ontario Crohn's and Colitis Cohort (OCCC)
 - ICES Physician Database (IPDB)
 - Ontario Health Insurance Plan Database (OHIP)
 - CIHI Discharge Abstract Database (DAD)
- Linkable across databases using unique identification number

STUDY DESIGN

- Population based retrospective cohort
 - Children diagnosed <18y
 - Ontario resident
 - Diagnosed April 1 1994 to March 31 2009
 - Experienced transition from paediatric to adult gastroenterologists
 - Min. 2 pediatric and 2 adult GI visits
 - Min. 2 years with pediatric GI followed by 2 years with adult GI
- Self-Controlled Case Series (SCCS) method
 - Each patient served as his/her own control
 - Relative incidence ratio (RIR)

COHORT DEFINITION

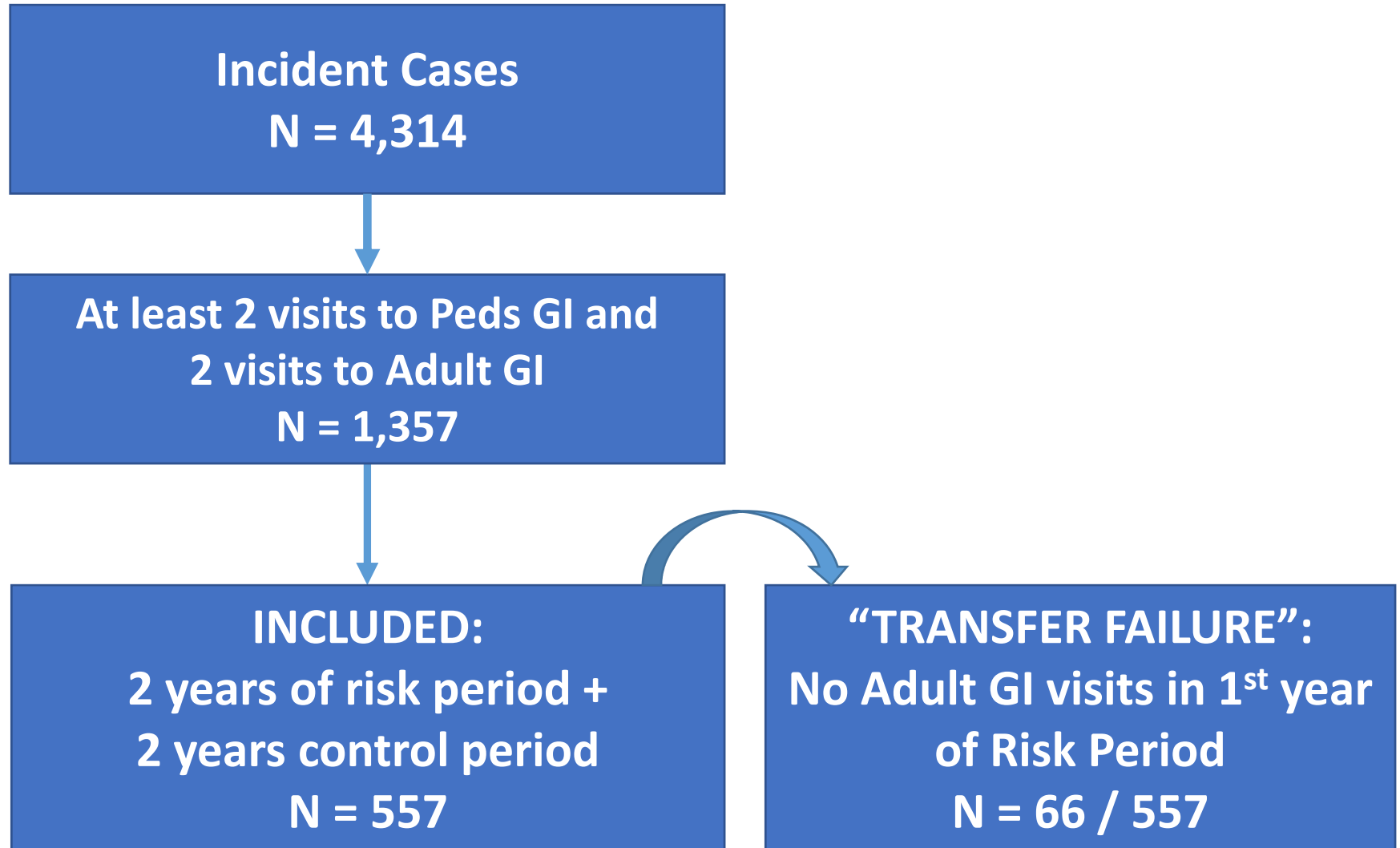


OUTCOMES

- Outpatients Visits
 - Hospitalization
 - Emergency Department (ED) Visits
 - Lab Tests
-
- Number/Counts – Poisson regression
 - Controlled for: sex, mean neighbourhood income quintile

RESULTS

STUDY POPULATION



STUDY POPULATION

CHARACTERISTIC	NUMBER
Included Patients (n)	557
Gender	
Male	325 (58%)
Female	232 (42%)
Diagnosis	
Crohn's	388 (70%)
UC	148 (27%)
Unclassifiable	21 (4%)
Age at Diagnosis Median (IQR)	13.5 (2.9)
Age at First Adult GI Visit Median (IQR)	18.1 (0.8)
Age at Start of Risk Period Median (IQR)	18.6 (0.8)

NUMBER OF HOSPITAL ADMISSIONS IBD-RELATED

CROHN'S



Pediatric

Wash-Out

Adult

RIR 1.80 (95%CI 1.02 to 3.18, P=0.044)

ULCERATIVE COLITIS



Pediatric

Wash-Out

Adult

RIR 4.56 (95%CI 0.21 to 98.43, P=0.333)

EMERGENCY DEPARTMENT IBD-RELATED

CROHN'S



RIR 2.10 (95%CI 1.68 to 2.61, P<0.0001)

ULCERATIVE COLITIS



RIR 1.19 (95%CI 0.48 to 3.00, P=0.7059)

OUTPATIENT VISITS IBD-RELATED

CROHN'S



RIR 1.04 (95%CI 1.03 to 1.06, P<0.0001)

ULCERATIVE COLITIS



RIR 1.05 (95%CI 1.01 to 1.09, P=0.008)

LAB TESTS (OVERALL)

CROHN'S



RIR 1.07 (95%CI 1.05 to 1.08, P<0.0001)

ULCERATIVE COLITIS



RIR 1.08 (95%CI 1.05 to 1.10, P< 0.0001)

LIMITATIONS

- Findings may be specific to Ontario
- Shadow billing
- Types of clinics
- Loss to follow up – moved from province after high school

CONCLUSIONS

- CD Patients
 - Health service utilisation increased after transfer
 - Hospitalization, ED, outpatient, lab visits
- UC Patients:
 - Only outpatient and lab visits increased

CONCLUSIONS

- Indicates need for:
 - Identification of adolescents at risk for complications after transfer
 - Structured transition program
 - Can this prevent increased health services utilisation?

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