

CCFC-Funded Research – A Progress Report is a regular feature in The Journal. Readers will hear about the most current Canadian research as CCFC-funded researchers report on their activities and latest findings. Two recent studies by CCFC funded researchers examined medication use and patterns of treatment in IBD patients. Their results are outlined here.

Medication use by IBD patients in Manitoba

Dr. Charles Bernstein is a CCFC Funded Research Scientist. The CCFC provides up to five years of funding to its Research Scientists – Canadian university-based investigators - to conduct IBD research on an ongoing basis, mentor junior investigators and develop more IBD research at their individual institutions.

Dr. Bernstein and a team of researchers at the University of Manitoba examined medication use by IBD patients in Manitoba for the year 1997.

The University of Manitoba Inflammatory Bowel Disease Database, is an anonymous population-based database that includes all IBD patients in the province. This database was linked to the provincial Drug Program Information Network (DPIN), which identifies all ambulatory (non-hospitalized) prescriptions issued to each person in the province. Information on all prescription drug use by IBD patients in Manitoba was extracted. This study was approved by the University of Manitoba Research Ethics Board and the Manitoba Health Information Privacy Committee and patient confidentiality is strictly maintained.

Dr. Bernstein and colleagues examined all prescriptions and costs for 1997, and compared medication use by sex, geography (urban versus non urban residence), income and disease (Crohn's disease versus ulcerative colitis). They also compared patients diagnosed between 1984 and 1987 to patients diagnosed between 1994 and 1997 to identify any differences in prescribing patterns among the two groups. Finally, researchers analyzed the usage of 5 aminosalicylic acid (5-ASA), steroids and immunomodulatory drugs.

In undertaking this study, the researchers noted the importance of gathering this type of drug usage and cost information, stating that detailed knowledge of health care service usage by people with IBD is essential to understanding the resources needed to treat these conditions. Further, the information will help identify problems of access to care, service availability and appropriateness of therapeutic decisions by age, sex, decade of diagnosis, socio-economic status and geography.

Overall results

The study results are based on information for 5,012 IBD patients in Manitoba in 1997. Of that number 87.5 per cent received at least one prescription in 1997. The rate of drug prescription in the general population was 66 per cent. This indicates, not surprisingly, that people with IBD use more prescription drugs than the general population.

The number of drugs prescribed per IBD patient and the cost of drugs per patient rose directly with the age of the patient. Additionally, female patients used a higher number of different drugs than male patients, but the cost per user was similar among the two sexes.

Geography and income level did not appear to impact medication prescription and use. The number of different drugs prescribed and the costs per user were similar among patients in urban and non-urban settings and among patients of differing income levels.

Comparison of drug use by decade

In their comparison of patients diagnosed in different decades (1984-1987 versus 1994-1997), the research team found that patients diagnosed in the latter decade were significantly more likely to take oral or rectal 5-aminosalicylic acid and steroids than those patients diagnosed in the earlier decade.

Patients diagnosed in the latter decade were also more likely to be prescribed oral or rectal 5-ASA than those in the earlier decade. The prescription of rectal 5-ASA over oral 5-ASA rose dramatically between the two decades.

The prescription of steroids was also more common among patients diagnosed in the latter decade.

The decade of diagnosis did not significantly impact the prescription patterns of immunomodulatory drugs.

5-ASA, steroids and immunomodulators

The highest rate of 5-ASA occurred among male patients over 18 years. The prescription of 5-ASA was significantly higher among ulcerative colitis patients than among Crohn's patients. The prescription of oral 5-ASA was higher in ulcerative colitis patients, however that finding was reversed for rectal 5-ASA, with the more prescriptions among Crohn's patients.

Male patients and patients with Crohn's disease were more likely to use oral steroids than other patient groups. The use of prednisone was more common in patients over 18 while budesonide was more common in patients over 40.

Immunomodulatory drugs were used by just 7.8 per cent of IBD patients, but they accounted for the highest costs, at \$1,404 per person.