

## HEALTH CARE UTILIZATION DIFFERENCES BETWEEN FIRST NATIONS AND THE GENERAL POPULATION WITH INFLAMMATORY BOWEL DISEASE IN SASKATCHEWAN

J. Marques Santos<sup>5</sup>, S. Fowler<sup>5</sup>, D. Jennings<sup>5</sup>, C. Brass<sup>1</sup>, L. Porter<sup>3</sup>, R. Porter<sup>4</sup>, R. Sanderson<sup>2</sup>, J. Peña-Sánchez<sup>5</sup>

1. Muskoday First Nation, Muskoday, SK, Canada; 2. James Smith Cree Nation, Kinistino, SK, Canada; 3. One Arrow First Nation, North Battleford, SK, Canada; 4. York Factory First Nation, York Factory, MB, Canada; 5. University of Saskatchewan College of Medicine, Saskatoon, SK, Canada

**Background:** Indigenous patients with inflammatory bowel disease (IBD) have expressed concerns about barriers to access IBD care. The limited evidence of IBD among Indigenous people highlights the need for studies evaluating access to IBD care in this population.

**Aims:** We aimed to compare health care utilization between First Nations (FNs) and individuals from the general population (GP) diagnosed with IBD in Saskatchewan (SK).

**Methods:** A population-based retrospective cohort study was conducted using administrative health databases of SK from 1998 to 2017 fiscal years. As a patient-oriented research initiative, outcomes of interest were chosen in collaboration with Indigenous patients and family advocates. A validated algorithm requiring multiple health care contacts was applied to identify incident IBD cases. The self-declared FN status variable was used to divide IBD cases between FNs and the general population (GP). To balance the groups, 1:5 age and sex matching was applied. Cox-proportional models were used to estimate hazard ratios (HRs) and 95% confidence intervals (95% CI). Stratified analysis was completed for those diagnosed before and after 2008 (pre- and post-biologic eras).

**Results:** A matched cohort with 696 IBD incident cases was created (FN=116, GP=580). Comparing health care utilization of FNs and individuals from the GP with IBD, there were no statistically significant differences in outpatient gastroenterology visits (FNs=81.0%, GP=83.6%), colonoscopies (FNs=91.4%, GP=86.9%), and surgeries for IBD (FNs=31.0%, GP=33.5%). We observed differences in prescription claims for any medication for IBD (FNs=79.3%, GP=89.3%) and 5-aminosalicylic acid (5-ASA) claims (FNs=75.9%, GP=81.4%). The HRs adjusted by rural/urban residence and diagnostic type showed differences in prescription claims for any IBD medication (HR=0.52, 95% CI 0.41-0.65) and 5-ASA (HR=0.57, 95% CI 0.45-0.72). In the pre-biologic era, FNs had a lower risk of having a prescription claim for any IBD

medication (HR=0.32, 95% CI 0.23-0.45) and 5-ASA (HR=0.33, 95% CI 0.24-0.47), respectively. These differences were not significant in the post-biologic era.

**Conclusions:** Our study identified an inverse association between FN status and having prescription medication claims for IBD in SK. We considered multiple confounding variables when evaluating this association but could not control by disease severity. Thus, this association might reflect a barrier to access IBD medications or that FNs with IBD might present a milder disease. Further studies should continue evaluating access to IBD care, medication use, and disease severity among FNs living with IBD.

**Funding Agencies:** Saskatchewan Centre for Patient-Oriented Research (SCPOR), Saskatchewan Health Research Foundation (SHRF), and College of Medicine, University of Saskatchewan.