

Patterns of Analgesic Usage Among Inflammatory Bowel Disease Patients: Insights from a National Inpatient Sample (2016-2020)

Maram Albandak^{1*}, Bisher Sawaf¹, Yusuf Hallak¹, Nezam Altorok²

¹Resident, Division of Internal Medicine, Department of Medicine, 3000 Arlington Avenue, The University of Toledo, Toledo OH 43615

²Professor, Program Director Rheumatology Fellowship, Director Internal Medicine Residency, Division of Internal Medicine, Department of Medicine, 3000 Arlington Avenue, The University of Toledo, Toledo OH 43615

Email: maram.albandak@utoledo.edu

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Background: Understanding analgesic usage patterns among inflammatory bowel disease (IBD) patients is crucial for improving clinical practices and tailoring pain management across different age groups. **Methods:** We analyzed data from a National Inpatient Sample (2016-2020), for individuals aged 18 and above diagnosed with IBD, stratified into young adults (18-39 years), adults (40-59 years), and older adults (≥60 years). The prevalence and trends of analgesic usage, specifically opiates and NSAIDs, was investigated across various age groups, races, insurance statuses, and income levels.

Results: The analysis included 304,969 IBD patients (114,940 with ulcerative colitis and 190,029 with Crohn's disease), with a mean age of 54.18 years. The cohort was 56.38% female, 78.83% White, 11.23% Black, and 6.11% Hispanic. Of these patients, 3.59% (10,948 patients) reported analgesic use, exhibiting a statistically significant trend over the study period (OR: 1.07; $p < 0.0001$). Among them, 78.87% (8,635) used opiates, 24.97% (2,734) used NSAIDs, and 3.8% (421) used both, with significant trends observed for opiates (OR: 1.05; $p < 0.0001$) and NSAIDs (OR: 1.16; $p < 0.0001$). Older adults showed a higher prevalence of analgesic use compared to young adults (38.47% vs. 23.91%; $p < 0.0001$). Opiate usage was significantly higher among older adults and adults (OR: 1.08 and 1.06, respectively; $p < 0.0001$). NSAID usage was also more common in older adults (44.44%) compared to adults (34.64%) and young adults (20.92%), with significant trends observed across age groups. Disparities included higher opiate use among White patients (81.22%), Medicare recipients (46.49%), and those in the lowest income quartiles (27.06%).

Conclusion: This study highlights significant age-related and demographic disparities in analgesic use among IBD patients. Older adults use analgesics more, particularly NSAIDs, while opiate use is higher in certain racial and socioeconomic groups. Targeted pain management strategies and policy interventions are needed to address these disparities.

Keywords: Inflammatory Bowel Disease, Ulcerative Colitis, Crohn's Disease, Opiates, NSAIDs, Demographic Disparities
