

Introduction

- Gender disparities in medical treatment and healthcare access are widely recognized across various chronic diseases.
- However, limited data exist specifically evaluating these disparities in ulcerative colitis (UC), a major subtype of inflammatory bowel disease (IBD).
- Understanding gender-based differences in medication use, surgical management, and hospitalizations can help improve patient-centered care in UC.
- This systematic review and meta-analysis aims to quantify gender disparities in the management of UC and explore their impact on treatment decisions and healthcare utilization.

| P | I | C | O | S |
|---|---|-----------------------------|--|-------------------------------------|
| Population | Intervention | Control | Outcome | Study Design |
| Adult patients (≥18 years) diagnosed with Ulcerative Colitis (UC) | Sex-based comparison of UC treatment and healthcare utilization | Male vs. Female UC patients | Primary Outcomes: -Medical Treatment Disparities -Surgical Outcomes -Healthcare Utilization | Systematic review and meta-analysis |

Total studies screened: 1544 across 4 databases
Total Studies Included: 8 studies with a total of 47,089 UC patients

Results



- Biologic Therapy OR: 0.89 (95% CI: 0.69–1.15, p = 0.36)
- Corticosteroid Use OR: 1.17 (95% CI: 0.89–1.54, p = 0.27).
- Immunomodulator Use: **OR: 0.89** (95% CI: 0.85–0.94, p < 0.0001).



- Total Abdominal Colectomy: OR: 0.78 (95% CI: 0.55–1.10, p = 0.15)
- Any Surgical Intervention: OR: 0.94 (95% CI: 0.59–1.52, p = 0.81)



- UC-Related Hospitalization Rates: **OR: 1.41** (95% CI: 1.22–1.64, p < 0.00001, I² = 16%).

Conclusion

Sex-based differences in UC management exist, particularly in immunomodulator use and hospitalization rates. Addressing these disparities through personalized treatment approaches may improve outcomes for female UC patients.

Discussion

- Underuse of Immunomodulators in Women: May reflect provider bias or concerns about safety during childbearing years.
- Balanced Use of Biologics and Steroids: Suggests growing consistency in evidence-based prescribing across genders.
- Comparable Surgical Rates: Despite more hospitalizations, women did not undergo surgery more frequently.
- Higher Healthcare Burden in Women: Increased hospitalizations point to potential gaps in disease monitoring or support.
- Call for Gender-Informed Strategies: Emphasizes the need to tailor UC care with gender considerations in mind.

References

1. Scaats LA, Morris AM, Bundorf MK, et al. Sex Differences in Treatment Strategies Among Patients With Ulcerative Colitis: A Retrospective Cohort Analysis of Privately Insured Patients. *Dis Colon Rectum*. 2019 May;62(5):586-594. doi: 10.1097/DCR.0000000000001342.
2. van der Valk ME, Mangan MJ, Leenders M, et al.; COIN study group and the Dutch Initiative on Crohn and Colitis. Healthcare costs of inflammatory bowel disease have shifted from hospitalisation and surgery towards anti-TNF α therapy: results from the COIN study. *Gut*. 2014 Jan;63(1):72-9. doi: 10.1136/gutjnl-2012-303376.
3. Spekhorst LM, Imhann F, Festen EAM et al.; Parelsnoer Institute (PSI) and the Dutch Initiative on Crohn and Colitis (ICC). Cohort profile: design and first results of the Dutch IBD Biobank: a prospective, nationwide biobank of patients with inflammatory bowel disease. *BMJ Open*. 2017 Nov 8;7(11):e016695. doi: 10.1136/bmjopen-2017-016695.
4. Magro F, Dias CC, Portela F, et al.; GEDII [Portuguese IBD Group]. Development and Validation of Risk Matrices Concerning Ulcerative Colitis Outcomes-Bayesian Network Analysis. *J Crohns Colitis*. 2019 Mar 30;13(4):401-409. doi: 10.1093/ecco-jcc/jjy168.
5. Blumenstein I, Herrmann E, Filmann N, et al. Female patients suffering from inflammatory bowel diseases are treated less frequently with immunosuppressive medication and have a higher disease activity: a subgroup analysis of a large multi-centre, prospective, internet-based study. *J Crohns Colitis*. 2011 Jun;5(3):203-10. doi: 10.1016/j.crohns.2010.12.012.
6. Samuel S, Ingle SB, Dhillon S, et al. Cumulative incidence and risk factors for hospitalization and surgery in a population-based cohort of ulcerative colitis. *Inflamm Bowel Dis*. 2013 Aug;19(9):1858-66. doi: 10.1097/MIB.0b013e31828c84c5.
7. Targownik LE, Singh H, Nugent Z, et al. The epidemiology of colectomy in ulcerative colitis: results from a population-based cohort. *Am J Gastroenterol*. 2012 Aug;107(8):1228-35. doi: 10.1038/ajg.2012.127.