

Quality of life and disability after surgical vs medical treatment in Ulcerative colitis – A systematic review

Nora Helene Wytrykowski Christensen^{1,2,4}, Jonas Andre Lundekvam^{1,3}, Johannes Kurt Schultz^{2,1,4}

- 1) University of Oslo, Faculty of Medicine, Institute of clinical medicine, Oslo, Norway
- 2) Akershus University Hospital, Department of gastrointestinal surgery, Lørenskog, Norway
- 3) Oslo University Hospital Ullevål, Department of gastroenterology, Oslo, Norway
- 4) Oslo University Hospital Ullevål, Department of pediatric and gastrointestinal surgery, Oslo, Norway

Background: Biologic treatment of Ulcerative Colitis (UC) has side effects, about 30% of patients fail to respond to first-line treatment and 45% loose efficacy (1). The alternative, surgery with colectomy, entails the risk of complications. Both treatments may impact Health-related Quality of Life (HRQoL) and disability.

Aim: Compare the effect of biologics vs. surgery in UC on HRQoL and disability

Methods: Systematic online search with controlled vocabulary and text words.
 → Medline (Ovid), Embase (Ovid) and Scopus
 → Titles and abstracts screened by two separate reviewers
 → Full-text analysis if inconclusive abstract, and of all included studies

Inclusion criteria:

- Published after 1999
- English, German or a Scandinavian language
- Population: Ulcerative colitis patients
- Intervention: Treatment with biologics
- Comparison: Surgical treatment
- Outcome of interest: HRQoL and disability

Results:

- 2905 studies identified
- 243 reported outcomes of interest in UC patients on biologics or after surgery.
- Five studies directly compared HRQoL and/or disability between treatment groups (2,3,4,5,6), results summary **Table1**.

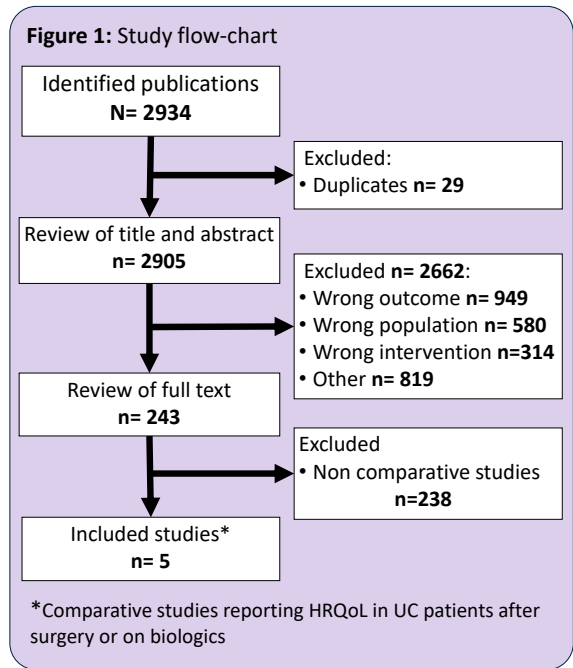


Table 1: Studies comparing HRQOL or disability between UC patients on biologics or after surgery

Article/ Country/ Design	Treatments/Sample size	Results
Meijs 2013 (2) / NL/ Cross-sectional cohort	Surgical: IPAA (n=29) Medical: Anti-TNFα (n= 29)	HRQoL: SF-36→ NS differences Disability: WPAl:UC → NS differences.
Van der Valk 2015 (3) / NL / Prospective cohort	Surgical: IPAA (n=81) Colectomy/ileostomy (n=48) Medical: Anti-TNFα (n=34)	HRQoL: IBDQ/EQ5D3L→ NS differences within or between groups. Disability: Productivity higher in both surgical groups.
Lee 2016 (4)/ NZ/ Cross-sectional cohort study	Surgical: IPAA (n=84) Medical: (n= 41), (cohort from other study → Leong 2014 (7)), biologics 15%, steroids 32%	HRQoL: IBDQ→ Higher general HRQOL after surgery, Lower in females, if work impairment or after complications. Disability: IBD-DI→ less disability after surgery.
van Gennep 2017 (5)/ NL&BE /matched cohorts	Surgical: IPAA (n=59) Medical: Anti-TNFα (n= 297)	HRQoL:SF36/EQ5D3L→ Higher scores after surgery Disability: IBD-DI→ NS differences.
Portela 2020 (6)/ Portugal/ Cross- sectional cohort	Surgical: IPAA (n=44)/ Ileostomy (n=4)/ IRA (n=15) Medical: IFX (n=42), other medication (n= 50)	HRQoL: SF36/IBDQ→ NS differences in total scores. Surgical group had lower scores on Social dimensions and Physical functioning, NS difference between IPAA and IRA

Abbreviations: IPAA- Ileal Pouch-Anal anastomosis, UC – ulcerative colitis, IRA – Ileo-Rectal anastomosis, IFX – Infliximab; SF 36 – Short Form 36, SF12 – Short Form 12 Questionnaire, WPAl – Work productivity and Activity Index, SIBDQ – Short Inflammatory Bowel Disease Questionnaire, IBDQ – Inflammatory Bowel Disease Questionnaire, IBD-DI – Inflammatory Bowel Disease Disability index, EQ5D3L – EuroQol reported in 5 Dimensions and 3 Levels.

Conclusion: HRQoL in UC patients on biologics or after colectomy is good. Disability is similar or lower after surgical treatment, despite an increased use of antidiarrheals. Colectomy is a good alternative to treatment with biologics, shared decision making is encouraged!

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