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# TITLE PAGE

**Title:** Smoking as a Modifiable Risk Factor for a Complicated Course in Crohn's Disease.

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**Abbreviations:** IBD inflammatory bowel disease

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We read the paper by De Bie et al. with interest. (1) The authors examined patient-awareness of the effects of smoking on the natural history of inflammatory bowel disease (IBD). The majority of IBD patients seemed unaware of the fact that smokers have an increased risk of developing Crohn's disease, an increased likelihood of requiring surgery, and higher rates of recurrence after surgery.

Given that the association between smoking and an increased risk of developing Crohn's disease was reported over 30 years ago, (2) the results from this recent article were surprising to us. Only 37% of patients with Crohn's disease taking part in the study were aware that smoking is a risk for development of the disease. Furthermore, only 30% and 27% of patients, respectively, were aware of the link between smoking and higher rates of surgical intervention or postoperative recurrence.

Although the study was conducted in only one specialist centre in Belgium, it highlights that doctors should not assume that patients with Crohn's disease are aware of the negative effects of smoking on the natural history of their disease. Patients should therefore be educated about the risks of smoking in Crohn's disease. Physicians may be hampered in their attempts to do this by conflicting information from previous studies that have examined this issue, (3-7) as well as uncertainty about the magnitude of the detrimental effect of smoking on the course of Crohn's disease.

This suggests that a definitive summary of the evidence in order to estimate the overall effect of smoking on the course of Crohn's disease is required. This will give healthcare professionals summary statistics to quote to patients in order to encourage smoking cessation. A recent cost-utility analysis demonstrated that

smoking cessation strategies in Crohn's disease were all more cost-effective than no active intervention. (8) Smoking is therefore an important modifiable environmental risk factor for a complicated course in Crohn's disease that can be targeted, hopefully leading to a reduction in the number of flare-ups of disease activity, inpatient admissions, and surgical interventions, thereby reducing the costs of managing the disease.

## REFERENCES

- 1. De Bie C, Hendriks N, Coenen S, Weyts E, Van Assche G, Vermeire S, et al. Smoking behaviour and knowledge of the health effects of smoking in patients with inflammatory bowel disease. Alimentary Pharmacology and Therapeutics. 2015.
- 2. Somerville KW, Logan RF, Edmond M, Langman MJ. Smoking and Crohn's disease. Br Med J (Clin Res Ed). 1984;289(6450):954-6.
- 3. Timmer A, Sutherland LR, Martin F. Oral contraceptive use and smoking are risk factors for relapse in Crohn's disease. The Canadian Mesalamine for Remission of Crohn's Disease Study Group. Gastroenterology. 1998;114(6):1143-50.
- 4. Cosnes J, Carbonnel F, Carrat F, Beaugerie L, Cattan S, Gendre J. Effects of current and former cigarette smoking on the clinical course of Crohn's disease.

  Aliment Pharmacol Ther. 1999;13(11):1403-11.
- 5. van der Heide F, Wassenaar M, van der Linde K, Spoelstra P, Kleibeuker JH, Dijkstra G. Effects of active and passive smoking on Crohn's disease and ulcerative colitis in a cohort from a regional hospital. Eur J Gastroenterol Hepatol. 2011;23(3):255-61.

- 6. Fraga XF, Vergara M, Medina C, Casellas F, Bermejo B, Malagelada JR. Effects of smoking on the presentation and clinical course of inflammatory bowel disease. Eur J Gastroenterol Hepatol. 1997;9(7):683-7.
- 7. Odes HS, Fich A, Reif S, Halak A, Lavy A, Keter D, et al. Effects of current cigarette smoking on clinical course of Crohn's disease and ulcerative colitis. Dig Dis Sci. 2001;46(8):1717-21.
- 8. Coward S, Heitman SJ, Clement F, Negron M, Panaccione R, Ghosh S, et al. Funding a smoking cessation program for Crohn's disease: An economic evaluation. Am J Gastroenterol. 2015;110:368-77.