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Possibility of IBD flare and disease complications	-	Negative	Actions for IBD patients	Positive		
		Lower adherence to medication	Telemedicine consultations	No need to go/travel to outpatient clinics		Reduced risk of COVID-19 contamination
		Increase in immune resistance	Stopping biologics and immunomodulators	Reduction in systemic immune suppression		
		Loss of efficacy of medical therapy and response	Avoiding IV biologics and switching to SC	No need to go/travel to infusion clinics		
		Possibility of disease progression and complications	Delaying initiation of biological therapy	Reduction in systemic immune suppression		
		Inadequate monitoring	Delaying elective colonoscopy and laboratory tests	No invasive procedures in possibly contaminated environment		
		Possibility of complications and extension	Delaying elective surgical procedures	No invasive procedures in possibly contaminated environment		

Difficult decisions in IBD management during COVID-19 era: possible consequences

Figure 1. Inflammatory bowel disease (IBD) therapeutic interventions and possible negative and positive consequences during the novel coronavirus disease-2019 (COVID-19) era. IV, intravenously; SC, subcutaneously.

though decisions in terms of medical therapy could decrease the risk of COVID-19 infection, these measures could also increase the risk of an IBD flare and disease progression. The same is true for surgical procedures, because patients who undergo elective procedures can have an increased risk of severe COVID-19–related complications.⁶

In the COVID-19 era, the prognosis of patients with IBD can be significantly influenced by therapeutic interventions. The findings from the article by Norsa et al¹ show that keeping medical therapy in patients with IBD can be a safe strategy, despite the short follow-up period of the study. There is a clear need for an individualized approach of IBD interventions in this difficult moment of COVID-19 global pandemic.² Our generation of IBD physicians is learning how to balance difficult decisions at the epicenter of the problem. Involving patients in shared decision making can improve the possibilities of having no negative consequences during this difficult moment for mankind.

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References

1. Norsa L, et al. Gastroenterology 2020;159:371–372.

- 2. Danese S, et al. Nat Rev Gastroenterol Hepatol 2020; 17:253–255.
- 3. Fiorino G, et al. J Crohns Colitis 2020;14:1330–1333.
- 4. Mao R, et al. Lancet Gastroenterol Hepatol 2020;5:425-427.
- 5. Spinelli A, Pellino G. Br J Surg 2020;107:785-787.
- 6. Lei S, et al. EClinicalMedicine 2020;21:100331.

Conflicts of interest

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Inflammatory Bowel Disease and the SARS-CoV-2 Pandemic: More Speed, Less Haste



The ongoing severe acute respiratory syndrome novel coronavirus 2 (SARS-CoV-2) pandemic is one of the greatest medical challenges of the modern era. This emergency raises several questions for patients with chronic diseases, including inflammatory bowel disease (IBD). Do patients with IBD present a higher risk of infection with SARS-CoV-2? Do immunosuppressive drugs have an impact on the risk of complications and/ or death after developing novel coronavirus disease 2019 (COVID-19)? At present, no evidence-based guidelines have been issued in this respect, and so gastroenterologists are unable to advise and reassure their patients. In contrast, it is possible that immunosuppressants might dampen the cytokine storm associated with severe COVID-19.

A recent publication in *Gastroenterology* reported on a cohort of patients with IBD in at the university hospital in Bergamo, Italy. Over a 1-month period, none of the 522 monitored patients developed COVID-19.¹ Similarly, no cases of COVID-19 had been observed in an IBD cohort in Wuhan, China, 2 months after the start of the local SARS-CoV-2 outbreak ². The researchers concluded—hastily, in our opinion—that IBD patients taking immunosuppressants might have a lower risk of developing COVID-19.

The provision of well-grounded answers to these questions requires complex epidemiologic risk and benefit analyses with an a priori sample size calculation and a design that takes account of confounding factors and likely sources of bias.³ According to modelling results recently published by the Institut Pasteur (Paris, France), only 6% of the French population may have been in contact with SARS-CoV-2, and 2.6% of exposed people have been hospitalized for COVID-19.⁴ Given the lack of solid epidemiologic evidence, we referred to our population-based registry (EPIMAD) of all incident cases of IBD recorded in northern France since 1988.⁵ This area has around 6 million inhabitants, or approximately 10% of the whole French population. We calculate that at the time of writing, approximately 20 patients with IBD should have been hospitalized for COVID-19 in northern France. We also hypothesize that a lower than expected number of severe cases of COVID-19 might be primarily owing to tighter containment of people suffering from chronic diseases.

This low expected number of incident cases of COVID-19 among patients with IBD prevents any analysis of factors associated with severe viral disease. Our calculation highlights how difficult is it to build rigorous, robust studies designed to answer crucial questions about managing patients with chronic diseases during the SARS-CoV-2 pandemic.

The recently published, underpowered publications cannot provide answers for patients with IBD, and more generally infrequent diseases, and may even prompt misguided and possibly harmful treatment decisions.

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References

- 1. Norsa L, et al. Gastroenterology 2020 April 2 [Epub ahead of print].
- 2. An P, et al. Lancet Gastroenterol Hepatol 2020 April 17 [Epub ahead of print].
- 3. Rothman KJ, Greenland S, eds. Modern epidemiology, 2nd ed. Philadelphia: Lippincott Williams & Wilkins.
- Salje H, et al. Available: https://hal-pasteur.archivesouvertes.fr/pasteur-02548181/document.
- 5. Gower-Rousseau C, et al. Dig Liver Dis 2013;45:89–94.

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Reply. We are grateful for the interest of Dr Kotze et al and Dr Gower-Rousseau et al in our article, and we would like to take the opportunity to respond to their interesting comments.

We totally agree with the concept elucidated by Dr Kotze, that a tailored therapeutic approach should always be maintained when caring for patients with a chronic disease facing an event such as the severe acute respiratory disease novel coronavirus-2(SARS-CoV-2) pandemic. Our main aim was focused on the importance to avoid overreacting to a possible threat before demonstrating its real risks. As the first Western epicenter of the pandemic, we felt committed to share the Bergamo experience on the uneventful course of patients with inflammatory bowel disease (IBD) during the epidemic,¹ which was followed by other papers confirming our impression,² endorsing our early hypothesis that, in general, immunosuppression does not increase the risk of severe novel coronavirus disease-19.³ As also shown