

## Opinion

# Gastroenterology 2021: from the heart of the COVID-19 pandemic

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Like many across the world, in January we tend to contemplate what we hope to achieve in the upcoming year. Of course, these are not hard and fast objectives due to a combination of overambition (which frequently leads to my gym goals being modified) and unforeseen circumstance. It would be an understatement to say that 2020 was affected by unforeseen circumstance. Nevertheless, as healthcare professionals we have united in our response to the COVID-19 pandemic and in our attempts to continue to provide a quality service for our patients. Here, we look back over the past year and review what we have learnt about COVID-19 and its effects on how we work as gastroenterologists as well as what questions remain unanswered.

The pandemic was initially accompanied with an explosion of case reports. Flicking through Twitter on the commute, one learnt that 'COVID-19 causes pancreatitis<sup>1</sup>', 'COVID-19 causes encephalitis<sup>2</sup>' and 'COVID-19 causes orchitis<sup>3</sup>' which left you wondering what inflammatory condition the disease was not associated with. It soon became apparent that gastrointestinal symptoms were not uncommon and that they may be associated with a more severe disease phenotype.<sup>4,5</sup> Abnormal liver function tests are frequently observed and may be associated with a more severe disease phenotype.<sup>6,7</sup> Whether or not this represents a direct effect of SARS-CoV-2 infection is still up for debate and long-term follow-up data are required to further understand the implications of developing COVID-19 on the function of the gastrointestinal tract.

The virulence and transmissibility of SARS-CoV-2 necessitated rapid changes in how we had to work. There were clear concerns regarding the risks of endoscopy to both patients and staff<sup>8</sup> given the potential for aerosolisation and faecal

transmission of the virus,<sup>9</sup> although subsequent reports demonstrated that the use of appropriate PPE significantly ameliorates this risk.<sup>10</sup> Predicting the risk of SARS-CoV-2 infection to our patients has been challenging and the British Society of Gastroenterology (BSG) worked quickly to develop guidance regarding which patient groups should shield.<sup>11,12</sup> International registry work provided observations demonstrating increased risk of adverse outcome in patients with decompensated liver disease<sup>13</sup> and inflammatory bowel disease (IBD) using corticosteroids, but not those using anti-TNF agents<sup>14</sup> or patients post liver transplant.<sup>15</sup> However, further work is required to reassure both patients and healthcare professionals managing patients with chronic gastrointestinal disorders regarding the risk of SARS-CoV-2 infection such that appropriate treatment and lifestyle advice can be offered.

In order to protect our patients and respond to the surge of patients with COVID-19, our healthcare service evolved into a 'COVID-centric' machine. With the workforce redeployed to facilitate this, great sections of gastroenterology services, including IBD services, either stopped or were significantly reduced.<sup>16</sup> To stop the spread of the virus, many patients stayed at home. Secondary effects attributed to a reduction of service provision and the avoidance of healthcare have been sadly observed, including increased mortality from upper gastrointestinal bleeding in London<sup>17</sup> and a reduction in endoscopic gastrointestinal cancer diagnoses at a large UK centre.<sup>18</sup> Furthermore, nationwide lockdowns have led to both an increase in sedentary behaviour and alcohol consumption<sup>19</sup> with a subsequent increase in the number of patients with severe alcohol-related liver disease observed in a London teaching hospital



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following relaxation of the lockdown.<sup>20</sup> This is likely to be the tip of the iceberg with more secondary effects becoming apparent as time passes.

As Benjamin Franklin said ‘out of adversity comes opportunity’. The pandemic has led to great innovation and re-evaluation of how we work as gastroenterologists, with many units demonstrating great flexibility in adapting their services. We have realised that we need to make patient pathways simpler and with a greater focus on non-invasive testing. Examples of this are a ‘no biopsy approach’ to the management of coeliac disease,<sup>21</sup> clear guidance management strategies and when to refer patients with potential upper gastrointestinal physiology disorders<sup>22</sup> and telemedicine which has been used to great effect across the breadth of gastroenterology.<sup>23–25</sup> Although many of us miss seeing our patients face-to-face, there are undoubtedly benefits for patients in terms of the convenience of avoiding travel to hospitals with secondary positive effects on the environment.

When we must see patients, we should aim to streamline this experience to prevent multiple attendances, such as the ‘one-stop’ approach to assessing patients with liver disease adopted in Queensland, Australia.<sup>26</sup> Moreover, we have realised the importance of effectively communicating changes to service provision to patients, particularly given the volume of misinformation available on social media. A team from Birmingham demonstrated that patients with IBD were less likely to be concerned about their risk of contracting COVID-19 if they had a single interaction with the IBD service (which included a generic letter or visit to the Crohn’s and Colitis UK website).<sup>27</sup> Ongoing work with patients is required to continue to simplify and innovate care provision to ensure the same high standards are maintained while reducing the risk of SARS-CoV-2 exposure.

Despite the lessons of 2020, the new year has brought fresh challenges. We are now in the midst of a greater surge of cases and mortality than during the peak of the first wave. On the horizon, the vaccination programme provides hope. While the BSG has issued guidance recommending vaccination of patients with IBD and liver disease,<sup>28 29</sup> we need to rapidly assimilate data regarding a vaccination strategy across the breadth of patients with gastroenterology conditions. The pandemic has brought us together as healthcare professionals globally as we share responsibility in providing care for patients, as well as through a collaborative research effort to respond to the direct and indirect effects of COVID-19. We hope that this united approach to healthcare continues and at Frontline Gastroenterology, we remain dedicated to promoting work that guides and improves practice at the coalface for healthcare professionals and patients. Now to make a list of aims for 2021...

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#### REFERENCES

- 1 Aloysius MM, Thati A, Gupta A, *et al.* COVID-19 presenting as acute pancreatitis. *Pancreatology* 2020;20:1026–7.
- 2 Efe IE, Aydin OU, Alabulut A, *et al.* COVID-19-Associated encephalitis mimicking glial tumor. *World Neurosurg* 2020;140:46–8.
- 3 Bridwell RE, Merrill DR, Griffith SA, *et al.* A coronavirus disease 2019 (COVID-19) patient with bilateral orchitis: a case report. *Am J Emerg Med* 2020;16.
- 4 Beattie RM, Ashton JJ, Penman ID. COVID-19 and the gastrointestinal tract: emerging clinical data. *Frontline Gastroenterol* 2020;11:290–2.
- 5 Beattie RM, Ashton JJ, Penman ID. COVID-19 and the gastrointestinal tract: recent data. *Frontline Gastroenterol* 2020;11:371–4.
- 6 Lok J, Gess M. Liver dysfunction in COVID-19: a useful prognostic marker of severe disease? *Frontline Gastroenterol* 2020;2012:flgastro-2020-101689.
- 7 Yeoman A, Maggs DR, Gardezi SAA. Incidence, pattern and severity of abnormal liver blood tests among hospitalised patients with SARS-CoV2 (COVID-19) in South Wales. *Frontline Gastroenterol* 2020;5:flgastro-2020-101532.
- 8 Edwards C, Penman ID, Coleman M. Gastrointestinal endoscopy during COVID-19: when less is more. *Frontline Gastroenterol* 2020;11:256–7.
- 9 Xiao F, Sun J, Xu Y, *et al.* Infectious SARS-CoV-2 in feces of patient with severe COVID-19. *Emerg Infect Dis* 2020;26:1920–2.
- 10 Repici A, Aragona G, Cengia G, *et al.* Low risk of COVID-19 transmission in Gi endoscopy. *Gut* 2020;69:1925–7.
- 11 BSG. BSG expanded consensus advice for the management of IBD during the COVID-19 pandemic. British Society of gastroenterology, 2020. Available: <https://www.bsg.org.uk/covid-19-advice/bsg-advice-for-management-of-inflammatory-bowel-diseases-during-the-covid-19-pandemic/> [Accessed 22 Jan 2021].
- 12 BSG. Defining patient groups that should be considered for Shielding/Highly vulnerable categories. *British Society of Gastroenterology* 2020.
- 13 Marjot T, Moon AM, Cook JA, *et al.* Outcomes following SARS-CoV-2 infection in patients with chronic liver disease: an international registry study. *J Hepatol* 2020. doi:10.1016/j.jhep.2020.09.024. [Epub ahead of print: 06 Oct 2020].
- 14 Brenner EJ, Ungaro RC, Geary RB, *et al.* Corticosteroids, but not TNF antagonists, are associated with adverse COVID-19 outcomes in patients with inflammatory bowel diseases:

- results from an international registry. *Gastroenterology* 2020;159:481–91.
- 15 Webb GJ, Marjot T, Cook JA, *et al.* Outcomes following SARS-CoV-2 infection in liver transplant recipients: an international registry study. *Lancet Gastroenterol Hepatol* 2020;5:1008–16.
  - 16 Kennedy NA, Hansen R, Younge L, *et al.* Organisational changes and challenges for inflammatory bowel disease services in the UK during the COVID-19 pandemic. *Frontline Gastroenterol* 2020;11:343–50.
  - 17 Tavabie OD, Clough JN, Blackwell J. Reduced survival after upper gastrointestinal bleed endoscopy in the COVID-19 era is a secondary effect of the response to the global pandemic: a retrospective cohort study. *Frontline Gastroenterol* 2020;52:flgastro-2020-101592.
  - 18 Longcroft-Wheaton G, Tolfree N, Gangi A, *et al.* Data from a large Western centre exploring the impact of COVID-19 pandemic on endoscopy services and cancer diagnosis. *Frontline Gastroenterol* 2020;42:flgastro-2020-101543.
  - 19 ONS. Retail sales. office for national statistics statistical Bulletin, 2020. Available: <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/march2020> [Accessed 21 Jan 2020].
  - 20 Cargill Z, Kattiparambil S, Hansi N, *et al.* Severe alcohol-related liver disease admissions post-COVID-19 lockdown: Canary in the coal mine? *Frontline Gastroenterol* 2020;flgastro-2020-101693.
  - 21 Penny HA, Raju SA, Lau MS. Accuracy of a no-biopsy approach for the diagnosis of coeliac disease across different adult cohorts. *Gut* 2020;18:gutjnl-2020-320913.
  - 22 Sykes C, Parker H, Jackson W, *et al.* Triage guidance for upper gastrointestinal physiology investigations during restoration of services during the COVID-19 pandemic. *Frontline Gastroenterol* 2020;18:flgastro-2020-101632.
  - 23 Muhammad H, Reeves S, Ishaq S, *et al.* Telephone clinic improves gluten-free dietary adherence in adults with coeliac disease: sustained at 6 months. *Frontline Gastroenterol* 2020;155:flgastro-2020-101643.
  - 24 Serper M, Cubell AW, Deleener ME, *et al.* Telemedicine in liver disease and beyond: can the COVID-19 crisis lead to action? *Hepatology* 2020;72:723–8.
  - 25 Tang J, Huang Z, Guo H, *et al.* Online video clinic Satisfies the medical requirements of patients with IBD during the COVID-19 outbreak. *Am J Gastroenterol* 2020. doi:10.14309/ajg.0000000000001033. [Epub ahead of print: 29 Oct 2020].
  - 26 Eqbal A, Wickremaratne T, Turner S. One-Stop shop for variceal surveillance: integration of unsedated ultrathin endoscopy into the routine clinic visit. *Frontline Gastroenterol* 2021;38:flgastro-2020-101680.
  - 27 Mir N, Cheesbrough J, Troth T, *et al.* COVID-19-related health anxieties and impact of specific interventions in patients with inflammatory bowel disease in the UK. *Frontline Gastroenterol* 2020;17:flgastro-2020-101633.
  - 28 BSG. British Society of gastroenterology inflammatory bowel disease section and IBD clinical research Group position statement on SARS-CoV2 vaccination. *British Society of Gastroenterology* 2020 <https://www.bsg.org.uk/covid-19-advice/british-society-of-gastroenterology-inflammatory-bowel-disease-section-and-ibd-clinical-research-group-position-statement-on-sars-cov2-vaccination/>
  - 29 BSG. A joint statement on vaccination for Sars-CoV2 in patients with liver disease. *British Society of gastroenterology* 2020 <https://www.bsg.org.uk/covid-19-advice/a-joint-statement-on-vaccination-for-sars-cov2-in-patients-with-liver-disease/>