

## Withdrawal of the British Society of Gastroenterology IBD risk grid for COVID-19 severity

At the start of the SARS-CoV-2 pandemic, we and others produced guidance for people living with IBD and their clinical teams on behalf of the British Society of Gastroenterology.<sup>1</sup> This included publication of a risk grid based on key variables that were believed to increase the risk of adverse COVID-19 outcomes. The grid has been widely adopted providing a useful framework for patients, clinicians and policymakers but is now no longer relevant and should not be used.

The risk grid was the basis for categorisation into clinically vulnerable and extremely clinically vulnerable grouping informing those who should follow 'shielding' recommendations. It subsequently informed prioritisation for vaccination against SARS-CoV-2 and more recently use of antivirals and monoclonal antibody therapies directed against SARS-CoV-2. We developed the grid in April 2020 based on early information about the risk of severe COVID-19 outcomes and extrapolated from pre-existing data about the risk of severe infection in patients with IBD.

With hindsight, the key groupings, set 2 years ago, appear to have largely been accurate. The risk of severe COVID-19 is higher in older people, males, obesity and other major comorbidities.<sup>2</sup> Crohn's disease and ulcerative colitis are not inherently associated with increased risk of severe outcomes as shown by the OpenSafely platform.<sup>3</sup> Corticosteroids and active IBD both appear to increase risk although no study has managed to conclusively or mechanistically clarify this relationship.<sup>4-6</sup> Other commonly used IBD therapies (anti-tumour necrosis factor (TNF) (unless used in combination with thiopurines), anti-IL12/23, Janus Kinase inhibitors) do not appear to impart an increased risk, in contrast to rituximab, an antibody that depletes B cells, used in rheumatology.<sup>3</sup>

Vaccination against SARS-CoV-2 has uncoupled symptomatic infection and poor outcomes (hospitalisation, Intensive Care Unit admission and death).<sup>5</sup> The 'ImpaCt of bioLogic therApy on saRs-cov-2 Infection and immuniTY' (CLARITY) and 'Vaccination immunogenicity in Immunosuppressed

inflammatory bowel disease Patients' (VIP) studies provided critical observations about the immune response and effectiveness of vaccination in patients with IBD informing policy in the UK and beyond.<sup>7-9</sup> We have shown that antibody responses are attenuated and less durable in patients treated with anti-TNF therapy, and to a lesser extent with tofacitinib, but not with thiopurines. Antiviral T cell responses are largely intact. After two primary doses of vaccine, breakthrough and reinfection with SARS-CoV-2 are more common in anti-TNF-treated patients compared with vedolizumab.<sup>7</sup> Reassuringly, like the general population, severe infection after a full course of vaccination in anti-TNF-treated patients is rare.<sup>7</sup> Nevertheless, anti-TNF-treated patients should continue to accept booster doses to overcome this effect.

The velocity of the pandemic has recently shifted, with two waves of Omicron starting with the emergence of BA.1 in November 2021. This variant is highly transmissible but associated with reduced severity.<sup>10</sup> More recently, the BA.2 variant of Omicron is driving a further wave of symptomatic COVID-19 infections and an increase in hospitalisations, as almost all COVID-19 restrictions are lifted in the UK and many other countries. A booster dose of mRNA vaccine after either ChAdOx1 nCoV-19 or BNT162b2 has been shown to provide protection against symptomatic Omicron infection, although this wanes over time.<sup>11</sup> The protection against severe outcomes is likely to be prolonged.

Where does this leave IBD patients today? We want to reassure patients that for the vast majority there is no increased risk of adverse COVID-19 outcomes. The major potential risk to date has been of inadequate vaccination responses, which have been largely overcome by adjusted primary vaccine schedules, boosters and availability of antivirals. We, therefore, predict that the disruption from the pandemic for individuals with IBD will largely now be no different to the general population. Therefore, with all of this in mind, it is the right time to discontinue the risk grid.

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