

IBD Working Group
British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN)
Coronavirus (SARS-CoV-2) and COVID-19 in children with IBD

Position Statement: Management of PIBD during the SARS-CoV-2 pandemic

Specific guidance on how to manage children and adolescents with IBD during the current SARS-CoV-2 pandemic has been difficult to develop given the frequently changing government advice for the general public [1] and lack of pandemic specific data for PIBD. More recently however, the British Society of Gastroenterology (BSG) has published a disease risk stratification to help providing specific advice for IBD patients taking disease status and medical therapy into account [2]. In addition, the first international experience of children with IBD and COVID-19 has been published including work from the ESPGHAN PORTO Group led by Dan Turner and Richard Russell [3].

This statement aims to provide general recommendations regarding the management of PIBD with emphasis on three topics: (1) Assessment of COVID-19 related risk for PIBD patients, (2) IBD specific medication and (3) communication and hospital contact during the SARS-CoV-2 pandemic. We aim to endorse already available and peer reviewed recommendations to avoid variation in management across all UK PIBD units.

1. Assessment of COVID-19 related risk for PIBD patients

The core document for COVID-19 risk assessment in IBD was produced by the BSG stratifying patients in high, medium and low risk, taking therapy and disease activity into account (UK IBD COVID-19 Working Group) [2]. Crohn's & Colitis UK (CCUK) published a flow chart which takes BSG recommendation into consideration [4]. Both documents are tailored towards the adult population however are mostly applicable for PIBD (modified version: Table 1). The two scenarios, 'social distancing' and 'shielding', are described in detail via the official governmental website [1].

The three main features of '**social distancing**' applicable to patients with PIBD are:

- Avoid contact with someone who is displaying symptoms of coronavirus (COVID-19). These symptoms include high temperature and/or new and continuous cough.
- Avoid non-essential use of public transport.
- If outside your home, avoid contact with the public and maintain a safe distance to other people of at least 2 metres.

These three points currently apply to all people in the UK but should be even more stringently followed by children with IBD in the moderate risk column (see table 1).

Further enhancing protection of children with PIBD by '**shielding**' requires:

- Strictly avoiding contact with someone who is displaying symptoms of coronavirus infection.
- Not leaving the home, therefore not going out for shopping, leisure or travel.
- The governments' guidance to minimise all non-essential contact with other members of their household/family in shielded patients might not be possible in young children. It is however advisable to keep the number of carers/parents who look after 'shielded' children to a minimum and for those to strictly follow guidance on how to look after 'shielded' persons [1].

Stratification Table from the UK IBD COVID-19 Working Group modified for PIBD

Highest Risk: 'Shielding'	Moderate risk: 'Stringent social distancing'	Lowest risk: 'Social distancing' same as general population
<ol style="list-style-type: none"> 1. PIBD patients with other co-morbidities, separately highlighted as 'vulnerable' (e.g. respiratory, cardiac, metabolic or endocrine) and on IBD therapy (as per middle column). 2. PIBD patients regardless of co-morbidity meeting one or more of the following criteria: <ul style="list-style-type: none"> • On oral or intravenous steroids * • Induction therapy with combination therapy (starting biologic within previous 6 weeks). • Moderate-to-severely active disease despite immunosuppression/ biologics** • Short gut syndrome requiring nutritional support. • Requirement for parenteral nutrition. 	<p>Patients on the following medications:</p> <ol style="list-style-type: none"> 1. Monotherapy: <ul style="list-style-type: none"> • Thiopurines (azathioprine, 6-MP) • Methotrexate • Calcineurin inhibitors (tacrolimus or ciclosporin) • Anti-TNF alpha monotherapy (infliximab, adalimumab, golimumab) • Ustekinumab • Vedolizumab • Janus kinase (JAK) inhibition (tofacitinib) 2. Combination therapy (Biologic and immunomodulator): <ul style="list-style-type: none"> • On therapy for >6 weeks and stable 	<p>Patients on the following medications:</p> <ul style="list-style-type: none"> • 5-ASA • Rectal therapies • Orally administered topically acting steroids (budesonide or beclometasone) • Exclusive Enteral/Partial Enteral Nutrition or other diet based CD-therapy • Antibiotics for bacterial overgrowth or perianal disease

*For patients < 40kg: >0.5mg/kg per day of oral prednisolone or equivalent, for patients ≥ 40kg: ≥20mg per day or higher. Consider applying shielding advice for patients within 2 weeks after falling below described threshold.

** As adjudged by PIBD team responsible for patient.

Table 1: Risk stratification for PIBD patients.

2. COVID-19 and IBD Specific Medication

There is emerging evidence that children are safe to continue all IBD therapies during the coronavirus pandemic and that stopping medicines put children at risk of disease relapse. The international SECURE-IBD registry, a database curating cases of IBD patients infected with SARS-CoV-2 world-wide, shows that current outcomes for IBD patients do not vary substantially from outcomes from the general population [10].

Reassuringly, first international paediatric data published by Turner et al. confirms that the small number of reported cases (n=8) of PIBD cases with COVID-19 have experienced a mild disease course despite treatment with immunomodulators or immunomodulator/biologic combination therapy. Furthermore, Turner et al. highlighted that China and South Korea reported an exacerbation rate of approx. 20% in children whose infliximab infusions were delayed [3].

The specific advice regarding medical management for PIBD during the SARS-CoV-2 pandemic listed below was endorsed by > 90% of the voting PORTO Group members [3] and by the IBD Working Group BSPGHAN:

- Active IBD should be treated according to the standard guidance PIBD protocols as before the epidemics, since the risk of IBD complications in active IBD outweighs any risk of COVID-19 complications, especially in children.
- There is currently no concrete evidence that any of the IBD treatments increases the risk for acquiring SARS-CoV-2 or for a more severe infection once infected. Therefore, uninfected children should generally continue their medical treatment, including immunomodulators and biologic therapies, as the risk of a disease flare outweighs any estimated risk of SARS-CoV2 infection. This is especially true in children who have a much milder infection.
- Corticosteroids can be used to treat disease relapses, but as always recommended in children, the drug should be weaned as soon as possible. In Crohn's disease exclusive enteral nutrition should be preferred.
- The use of anti-TNFs should be continued at the regular intervals and doses.
- Switching from infliximab to adalimumab in a stable child should be discouraged unless impossible to provide intravenous infusions, since the risk of disease exacerbation after such a switch has been documented in the clinical trial setting.
- There is no clear indication to stop IBD treatment during COVID-19 infection, also due to the typical prolonged effect of IBD drugs. Nonetheless, we recommend suspending immunosuppressive treatment during an acute febrile illness until fever subsides and the child returns to normal health, irrespective of the SARS-CoV2 testing status.

In summary, the IBD Working Group BSPGHAN advises to continue therapy unless specifically advised by the IBD team responsible for the patients' care considering the points outlined above.

3. COVID-19 and IBD-related Hospital Visits

Due to the SARS-CoV-2 pandemic, our PIBD patients and IBD medical teams are facing significant alterations to face-to-face reviews, day-case admissions for infusion therapies, provision of medicines and diagnostic and therapeutic interventions. The IBD Working Group BSPGHAN endorsed the following general statements:

- Outpatient Clinics:
 - To minimise the risk for patients and staff, outpatient clinic appointment for follow up or new patients should be converted to telephone/virtual clinics if possible.
 - Face-to-face review and examination will only be required in acutely unwell patients and the appointment visit should follow each NHS trusts established COVID-19 protocols.

- Day-Case Admissions for Infusion Therapies:
 - Infusion therapies should not be omitted/delayed because of the SARS-CoV-2 pandemic. Each NHS trust should have established COVID-19 protocols to ensure a safe environment to provide infusion therapies.
- Provision of oral or home-injection medicines and monitoring bloods:
 - Ongoing oral or home-injection therapies should be ordered timely as prescription processing and delivery might take longer than usual.
 - Monitoring bloods (e.g. azathioprine) should continue in the safest environment possible. This will vary between trusts (community nursing team, GP surgery, hospital).

- Endoscopy in patients with suspected PIBD or IBD flare:

The British Society of Gastroenterology, European Society of Gastrointestinal Endoscopy (ESGE), the European Society of Gastroenterology and Endoscopy Nurses and Associates (ESGENA) and ESPGHAN produced position statements on gastrointestinal (GI) endoscopy during the SARS-CoV-2 pandemic [6, 7 and 8].

Key statements are:

- GI endoscopy units should strongly consider temporarily postponing elective, non-urgent endoscopy procedures.
- Upper GI endoscopy which is an ‘aerosol-generating procedure’ (AGP) carries as such as high risk of virus transmission in SARS-CoV-2 positive patients. Equally, lower GI endoscopy might carry additional risks given the emerging evidence that SARS-CoV-2 is excreted in faeces.
- Apart from immediate life-saving endoscopies, each service needs to balance IBD and COVID-19 related morbidity/mortality to decide on the appropriateness of endoscopy for PIBD patients. See flow chart: [7].
- In the event of endoscopy being required a full personal exposure protection package should be worn by those in the immediate vicinity of the endoscopy including an FFP3 mask or equivalent [7 and 9].

The preliminary data on disease risk for the paediatric general population and COVID-19 in PIBD, suggests that ongoing evidence-based PIBD service provision including endoscopy should remain accessible in selected cases. Focussing endoscopic resources on moderate-severe cases of PIBD seems reasonable but needs to be decided using each individual PIBD teams/trusts’ discretion taking the above listed societies’ statements into consideration.

- Small bowel imaging in PIBD

- Similarly to endoscopy provision particularly for patients with moderate-severe disease activity, small bowel imaging (e.g. MR Enterography) should remain accessible for selected cases. Appropriateness needs to be discussed within each service on a patient by patient basis. Access to different imaging modalities may vary during the pandemic and this may influence the choice of investigation for patients with PIBD.

This IBD Working Group Statement is based on data available up to the 6nd of April 2020. More evidence of PIBD behaviour during the SARS-CoV-2 pandemic will emerge requiring regular updates. This document is a working group statement/recommendation and not evidence-based clinical guidance. The approach to PIBD patients in the SARS-CoV-2 pandemic might vary due to different individual trusts' policies.

IBD Working Group, BSPGHAN, 06nd of April 2020

Core References and Web-Links

1. <https://www.gov.uk/coronavirus>
2. <https://www.bsg.org.uk/covid-19-advice/bsg-advice-on-ibd-patient-risk-groups/>
3. 'COVID-19 and Paediatric Inflammatory Bowel Diseases: Global Experience and Provisional Guidance (March 2020) from the Paediatric IBD Porto group of ESPGHAN'
Turner et al., JPGN, March 2020
4. <https://www.crohnsandcolitis.org.uk/news/advice-for-people-with-crohns-and-colitis-self-isolation-social-distancing>
5. <https://www.cicra.org/news/coronavirus/>
6. <http://www.espghan.org/societal-papers/covid-19-informational-statements/>
7. <https://www.esge.com/esge-and-esgena-position-statement-on-gastrointestinal-endoscopy-and-the-covid-19-pandemic/>
8. <https://www.bsg.org.uk/covid-19-advice/endoscopy-activity-and-covid-19-bsg-and-jag-guidance/>
9. <https://www.bsg.org.uk/covid-19-advice/bsg-jag-summary-recommendations-for-ppe-in-endoscopy-protecting-staff-patients-and-the-ppe-supply-chain/>

Case Reporting:

10. SECURE-IBD - <https://covidibd.org/>
11. ESPGHAN PORTO Group - <https://research.szmc.org.il/redcap/surveys/?s=FP38CNWRL>

Guidance on supporting children and young people's wellbeing:

<https://www.gov.uk/government/publications/covid-19-guidance-on-supporting-children-and-young-peoples-mental-health-and-wellbeing>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/healthy-parenting>