NASPGHAN-IBD Committee, COVID-19 General Information:
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Information about COVID-19 is developing at an incredibly rapid pace. Data is coming from a multitude of sources including physicians, scientists, traditional media, social media and other sites. The following document was developed to help the general pediatric gastroenterologist implement a plan and recommendations for their pediatric patients with inflammatory bowel disease.

What is COVID-19?
A novel strain of coronavirus identified at the end of 2019 that is highly infectious with a range of severity from asymptomatic to deadly.

To get the most up-to-date information, please visit one of the following trusted websites:

COVID-19 signs and symptoms:
COVID-19 infection can present with signs and symptoms that vary(4). In children, there may not be any significant symptoms(5-7). In general, the most common symptoms are:
- Fever
- Cough
- Muscle Aches
- Shortness of breath
- Other less common symptoms include fatigue, diarrhea, abdominal pain, rhinorrhea.

COVID-19 Digestive Symptoms:
The angiotensin-converting enzyme 2 (ACE2) receptor mediates entry of the virus(8), and the ACE2 receptor is present in some of the highest concentrations in the terminal ileum and colon(9). There is increasing evidence that patients with COVID-19 may also experience gastrointestinal symptoms, including diarrhea, nausea, vomiting and abdominal discomfort, potentially prior to the common respiratory symptoms (10, 11).

Key Findings:
- It is recommended patients be monitored if they present with initial GI distress, encouraging earlier detection, diagnosis, intervention and isolation
- Viral RNA is detectable in stool of those suspected to have coronavirus
- Viral gastrointestinal infection and potential fecal-oral transmission can last even after viral clearance from the respiratory tract
- Prevention of fecal-oral transmission should be taken into consideration to control the spread the virus

Groups at High-risk for Severe Illness with COVID-19:
High-risk groups (defined by the CDC) are being advised to take extra precautions. Children are NOT considered a high-risk group at this time. To learn more about all high-risk groups, visit the trusted websites above. Of note, high risk groups include: Those with conditions that can cause a person to be immunocompromised, including cancer treatment, smoking, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids. Potential risk factors that need further study include: IBD patients experiencing active malnutrition or on certain medications may have some degree of immunosuppression.
**IBD-Specific Recommendations:**

1. IBD patients should **not stop their IBD medications** unless they are instructed to do so by their physician as it is highly likely that uncontrolled or active IBD places a person at higher risk for infection than IBD medications (except prednisone). **See further information below**

2. Remind patients (and close contacts) of the importance of **strict adherence to the following:**
   - Avoid close contact with people who are sick.
   - Wash your hands with soap and water for at least 20 seconds.
   - If soap and water are not available, use a hand sanitizer that contains at least 60% alcohol.
   - Do not touch your nose, eyes, and mouth if you have not washed your hands.
   - Follow the specific guidance being issued by your local health department regarding social distancing, travel, wearing of cloth face coverings, handling of deliveries, and gathering in groups.

3. Conduct medical visits through **telemedicine** if possible; HIPAA restrictions have been eased in the United States to facilitate this(15).

4. Elective and semi-elective surgeries and endoscopies **should be delayed.** Please see recommendations from the NASPghan endoscopy committee or American Society for Gastroenterological Endoscopy.

5. Patients receiving infusions **should continue to receive the infusion without delays at the location where they have received it to date** unless there are mitigating circumstances (e.g. transportation issues). **See further information below under Home infusion vs Hospital infusion**.

6. Changing a well-controlled patient from an infusion therapy to a self-injectable is **not advised.**

7. Advise patients to **contact their provider if feeling sick** so that their physician might guide decisions on when to seek in-person care and when, or if, to delay medications.

8. Help contribute to our evolving knowledge by **reporting cases and outcomes to the SECURE-IBD Database.** **See further information below under SECURE-IBD**.

**COVID-19 and IBD Medications:** Adapted from Rubin DT et al. *Gastroenterology* 2020(17)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Pred (≥20mg/d)</th>
<th>BUD</th>
<th>5-ASA</th>
<th>AZA/6MP</th>
<th>MTX</th>
<th>Anti-TNF</th>
<th>VDZ*</th>
<th>UST*</th>
<th>TOFA*</th>
<th>Clinical Trial Med*</th>
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<tr>
<td>This therapy increases the risk of COVID-19 disease.</td>
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<td>Patients taking this therapy should discontinue or reduce the dose of therapy to prevent SARS-CoV-2 infection.</td>
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<td>Patients taking this therapy should delay* therapy if they develop COVID-19.</td>
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**Legend:**
- Appropriate/ Likely
- Uncertain
- Inappropriate/ Unlikely
- NA

Figure 1: Summary Table of IOIBD RAND Panel Statements(17) on IBD Medications and COVID-19; Abbreviations: Pred, Prednisone; BUD, Budesonide; 5-ASA, 5-aminosalicylic acid; AZA, Azathioprine; 6MP, 6-mercaptopurine; MTX, methotrexate; Anti-TNF, anti-tumor necrosis alpha therapy; VDZ, vedolizumab; UST, ustekinumab; TOFA, tofacitinib.

*medications not FDA approved in pediatrics

†panel voted on statements with “stop” terminology that we do not believe accurately reflects their intent
IBD COVID Considerations

SECURE-IBD:
Information on the effects of COVID-19 on patients with IBD is based on the experience of physicians and patients in China and Europe. NASPGHAN is a supporter of developing a database of IBD patients infected with COVID-19 and encourages all of our membership to be part of the critical data collection and help improve our understanding of the effects of COVID-19 infection on IBD patients, please follow weekly updates from the SECURE-IBD registry(16), and, if you have a patient with IBD that contracts COVID-19, regardless of the outcome, please register that patient at www.covidibd.org.

Home Infusion vs Hospital Infusion:
Currently, there is no data available on COVID-19 to specifically answer the question of where it is safest to receive an infusion. Yet, IOIBD(17) and multiple IBD centers across the country have suggested that hospital infusions are safe and appropriate. There is less regulation of use of PPE and appropriate hygiene with home infusion, and homecare companies are increasingly challenged to provide timely care due to staffing issues. See the prior NASPGHAN Clinical Report on Non-hospital-based Biologic Infusions in Pediatric IBD(18). In addition, a transition to homecare requires a significant amount of time and effort to move the authorization and to coordinate with the homecare company to provide the infusion, which could lead to inadvisable delays in receiving therapy. Finally, there is some recent adult data that suggests that the risk of complications and flare of disease is increased in patients that receive home infusions of biologics(19).

Due to these issues, we are making the following recommendations:
Above all encourage your patient **not to** stop the use of the biologic unless instructed to do so by a physician. **Do not** delay their appointment. We do not recommend moving infusions to homecare due to timing, access and safety concerns. All patients currently receiving infusions should continue to do this at the location where they have received it to date. If receiving hospital-based infusions, continue to do so; if already receiving home infusions, this should also be continued.

Psychological health:
Don’t forget that this is an extremely stressful situation(20). This is true for patients, guardians and providers. The Crohn’s and Colitis Foundation has some suggestions reviewed here and at https://www.crohnscolitisfoundation.org/coronavirus/mental-health(21)

- Parents should talk to their children about their thoughts and concerns
- Turn off media and news for some time each day.
- Being stuck inside for prolonged times can be overwhelming and demotivating. If it helps, set up a schedule to follow for you and your family. Having times set aside for specific activities may help add structure and normalcy back into your day.
- Begin a regular stress management practice using relaxation, mindfulness or meditation. The following apps are helpful to create your routine: Smiling Mind, Mindfulness Coach, Buddhify, Headspace, Calm, etc.
- Try some coping mechanisms to help you de-stress. Whether it is cooking your favorite meal, taking a relaxing bath, or mindful breathing, there are many options you can try.
- Connect with friends and family. There are many ways to connect with others through technology. Take time to check in with your loved ones, with video conferencing, or phone calls.
- Enjoy fresh air while following social distancing recommendations. If you have a backyard, take advantage of some time outdoors. Even if you can’t go outside, try to stay active. There are many online videos you can do at home to keep your body moving. Call your local gym and ask if they recommend or host any online workouts.
For Parents: How do I talk with my child or teen about COVID-19?

- **NPR**
  - Just for Kids: A Comic Exploring the New Coronavirus
    A resource for children about coronavirus, what it is and how to protect oneself.

- **National Association of School Psychologists**
  - Talking to Children About COVID-19 (Coronavirus): A Parent Resource
    A resource for parents on how best to talk to children about the coronavirus.

- **Psychology Today**

- **New York Times**
  - Talking to Teens and Tweens about Coronavirus
    This article details advice from experts on how parents can help teens be prepared and have the right information about the coronavirus.
References: