ADVANCES IN IBD

Current Developments in the Treatment of Inflammatory Bowel Disease

Section Editor: Stephen B. Hanauer, MD

Vaccination Updates for Patients With Inflammatory Bowel Disease

Francis A. Farraye, MD, MSc
Professor of Medicine
Director, Inflammatory Bowel Disease Center
Division of Gastroenterology and Hepatology
Mayo Clinic
Jacksonville, Florida

G&H Why are vaccinations important for patients with inflammatory bowel disease?

FF As many as 70% of patients with inflammatory bowel disease (IBD) will be on immunosuppressive therapy at some point during their illness. Immunosuppressive therapies increase the risk of developing certain infections. Several medications used to treat patients with IBD, such as corticosteroids, anti–tumor necrosis factor agents, thiopurines, and Janus kinase inhibitors, are of particular concern. The risk of developing an infection is cumulative, meaning that combinations of these agents increase the risk further than taking a single medication. Finally, if an immunosuppressed patient develops an infection, he or she can have worse outcomes. For example, influenza infections in immunosuppressed patients with IBD are more likely to lead to hospitalization.

G&H When is the ideal time to vaccinate patients with IBD?

FF The best time to vaccinate patients with IBD is at one of their initial visits and ideally prior to beginning immunosuppressive therapy. Based on all of the available data from studies in patients with IBD, there is no need to time vaccinations relative to scheduled biologic infusions or injections. Vaccination is an important part of preventive health measures. Gastroenterologists, gastroenterology nurse practitioners, and gastroenterology physician assistants should use every visit with their patients as an opportunity to update vaccinations and other health care maintenance activities. As the use of small molecules, biologic agents, and combinations of immune-modulating therapy is expanded for the treatment of patients with IBD, it is the responsibility of gastroenterologists to be certain that patients with IBD receive appropriate vaccinations. This responsibility should not be deferred to primary care providers.

G&H What are the new pneumococcal vaccine recommendations?

FF In the past, pneumococcal vaccination involved the pneumococcal conjugate 13-valent vaccine (PCV13; Pfizer), which contained 13 serotypes, or the pneumococcal polysaccharide 23-valent vaccine (PPSV23; Merck), which includes 12 of the serotypes in PCV13 plus 11 other serotypes. PCV13 is no longer recommended for adults. Recently, the pneumococcal conjugate 15-valent vaccine (PCV15; Merck) and the pneumococcal conjugate 20-valent vaccine (PCV20; Pfizer) were approved by the US Food and Drug Administration (FDA) and endorsed by the Advisory Committee on Immunization Practices (ACIP). PCV15 and PCV20 contain the PCV13 serotypes along with 2 and 7 other serotypes, respectively. My colleagues and I recently published an article in *Inflammatory Bowel Diseases* to educate gastroenterologists on how to use the new vaccines. In a patient with IBD who has never received a pneumococcal vaccine, a single dose of PCV20 is recommended. Alternatively, a patient who

has not received any pneumococcal vaccine can receive PCV15 followed by PPSV23 1 year later unless immunosuppressed. In that case, the 2 vaccines can be given 8 weeks apart. The article also reviews which vaccine to use in patients who were previously vaccinated with either PCV13 or PPSV23.

At present, I am prioritizing RZV vaccine administration to patients with IBD 19 to 49 years of age who are immunosuppressed as well as all patients 50 years of age and older regardless of immunosuppression.

G&H Are any data available yet on the use of the new pneumococcal vaccines in patients with IBD?

FF No studies have yet examined the use of the new pneumococcal vaccines in patients with IBD. However, studies have shown that the use of the pneumococcal vaccines previously available was associated with a decrease in developing severe pneumococcal disease. In a study by Love and colleagues, patients with IBD who received PCV13 either alone or in combination with PPSV23 had a 5-fold decreased risk of developing serious pneumococcal disease compared with unvaccinated patients.

G&H What are the latest recommendations for the shingles vaccine?

FF Patients with IBD are at an increased risk of developing shingles. The live shingles vaccine (Zostavax) is no longer available in the United States. Previously, the inactive shingles vaccine, or recombinant zoster vaccine (RZV; Shingrix, GlaxoSmithKline), was recommended for all individuals 50 years of age and older. The newest recommendation, from October 2021, is that any immunosuppressed patient 19 years and older is eligible for the RZV vaccine. In addition, the FDA states that patients at risk for future immunosuppression are also eligible for vaccination. Therefore, the majority of patients with IBD 19 years and older may be eligible for this vaccine. At present, I am prioritizing RZV vaccine administration to patients with IBD 19 to 49 years of age who are immunosuppressed as well as all patients 50 years of age and older regardless of immunosuppression. Recent studies by Kochhar and colleagues and Khan and colleagues have demonstrated a decreased risk of shingles in patients who have received the RZV vaccine.

G&H Are there any other updates involving the vaccination of patients with IBD?

FF The ACIP now recommends hepatitis B vaccination in all nonimmune adults aged 19 to 59 years as well as all adults 60 years and older who have risk factors for hepatitis B. In addition to the Engerix-B (GlaxoSmithKline) and Recombivax HB (Merck) vaccines (which consist of 3 doses given over 6 months), 2 other vaccines have been approved to prevent hepatitis B. These include the 2-dose vaccine Heplisav-B (Dynavax), which is given over 1 month, and the 3-dose vaccine PreHevbrio (VBI Vaccines), which is given over 6 months. My colleagues and I performed a retrospective study in patients with IBD that found that Heplisav-B had greater efficacy than Engerix-B in this patient setting.

G&H Should patients with IBD be vaccinated against monkeypox?

FF The United States declared the monkeypox outbreak to be a national emergency on August 4, 2022. According to the US Centers for Disease Control and Prevention (CDC), monkeypox spreads through close contact (eg, physical contact directly with lesions, sharing of respiratory secretions via face-to-face interaction, and handling of contaminated items). Having IBD itself does not increase the risk of developing monkeypox. There are currently 2 vaccines that are available. One (Jynneos, Bavarian Nordic) is given in 2 doses 4 weeks apart, but its availability is presently limited. The other vaccine (ACAM2000, Emergent Product Development) is a second-generation smallpox vaccine. Jynneos contains a live vaccine that does not replicate efficiently, whereas ACAM2000 contains a live virus that does replicate. Therefore, immunocompromised patients should not receive ACAM2000. The 2 vaccines can be given to people exposed to monkeypox or those at high risk for exposure. In the overwhelming majority of cases, monkeypox is a self-limited disease; however, patients with severe cases can be treated with tecovirimat (Tpoxx, Siga Technologies), which must be obtained directly from the CDC. Because this is a rapidly evolving field, clinicians should routinely check the CDC's website for guidance (www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.html).

G&H What other vaccinations are currently recommended for patients with IBD?

FF Vaccine recommendations for healthy adults, as well as those with comorbidities or immunosuppression, are published annually in the *Annals of Internal Medicine*. Tables published in this article review the indicated vaccines for all adults and include specific recommendations for patients who are immunosuppressed, which apply to patients with IBD.

G&H Are there contraindications to administering any of these vaccines to patients with IBD?

FF For all vaccines, the ACIP states that there is a contraindication to vaccination if the patient develops a severe allergic reaction (eg, anaphylaxis) after a previous dose or to a vaccine component. Otherwise, there are few contraindications to administering vaccines to patients with IBD. All patients, regardless of immunosuppression, can receive nonlive vaccines. These include vaccines for hepatitis A, hepatitis B, human papillomavirus, influenza, pneumococcal disease, tetanus, and shingles. Patients who are highly immunosuppressed should not receive live vaccines for measles, mumps, and rubella or for varicella, nor the intranasal influenza vaccine. There are several other live vaccines administered for international travel (eg, yellow fever); for these vaccines, patients should be referred to a travel clinic or infectious disease expert several months prior to expected travel.

It is now known that the initial and subsequent COVID-19 vaccines can be administered with vaccines for other diseases.

G&H Can vaccination affect disease activity of IBD?

FF It is important that gastroenterologists understand that there is no convincing evidence that vaccination exacerbates disease activity of IBD. My colleagues and I recently performed a meta-analysis examining vaccinations in patients with IBD and found that adverse events that occurred following vaccination were mainly local or mildly systemic. In addition, these events were similar to those expected following vaccinations administered to the general population.

G&H How has the COVID-19 pandemic affected vaccinations for patients with IBD?

FF At the beginning of the pandemic, there was decreased opportunity for face-to-face visits and, consequently, fewer vaccinations were administered. In addition, there was initially concern about combining COVID-19 vaccines with vaccines for other diseases. It is now known that the initial and subsequent COVID-19 vaccines can be administered with vaccines for other diseases. As many patients require multiple COVID-19 vaccines, there is some vaccine fatigue on the part of patients that should be addressed to avoid losing ground on the progress made in patients with IBD. Several studies, including one by Wasan and colleagues, have shown that provider recommendations are a major factor in patients' acceptance of vaccination. It is important that vaccination history be routinely reviewed at in-person and virtual office visits.

G&H What resources are available to help keep providers updated on vaccination recommendations?

FF The Crohn's & Colitis Foundation and the educational company Cornerstones Health offer checklists that can be used to remind clinicians to recommend vaccines and other health maintenance tasks. These checklists can be found at: www.crohnscolitisfoundation.org/sites/default/files/2019-09/Health%20Maintenance%20Checklist%202019-3.pdf and www.cornerstoneshealth.org/wp-content/uploads/2020/08/NEW-IBD-Checklist-for-Monitoring-Prevention-526a.pdf.

G&H How aware are IBD providers of recent vaccination updates?

FF Although there is always room for improvement, over the past 10 years, I have seen an increased emphasis on vaccination, as well as on other aspects of preventive health care, by gastroenterology providers. However, efforts must continue to educate gastroenterologists, advanced practice providers, physician assistants, and IBD nurses on the importance of vaccinations in an effort to keep patients well.

G&H What are the biggest challenges associated with administering vaccinations to these patients?

FF It is not cost-effective for small gastroenterology practices to store and administer vaccines on-site, unlike for large gastroenterology academic and private practices. However, regardless of where gastroenterologists practice, they can simply write a prescription for their patients to take to a local pharmacy. Pharmacists can run a claim, and the patients will know immediately if there is any charge for the vaccine.

Disclosures

Dr Farraye is a consultant for Bristol Myers Squibb, GlaxoSmithKline, Janssen, and Pfizer.

Suggested Reading

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