

ADVANCES IN IBD

Current Developments in the Treatment of Inflammatory Bowel Disease

Section Editor: Stephen B. Hanauer, MD

Reviewing Recommendations for Vaccines and Health Care Maintenance in Patients With Inflammatory Bowel Disease



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G&H What are the current recommendations for influenza and respiratory syncytial virus vaccines in patients with inflammatory bowel disease?

FF All patients with inflammatory bowel disease (IBD) should receive the inactive injectable annual influenza vaccine. There are 3 formulations (Flublok Quadrivalent, Protein Sciences Corporation; Fluvad Quadrivalent, Seqirus; and Fluzone High-Dose Quadrivalent, Sanofi Pasteur). Patients 65 years and older should receive the inactive injectable high-dose formulation. There are data to suggest that, regardless of age, patients receiving anti-tumor necrosis factor (TNF) therapy should also receive the inactive injectable high-dose influenza vaccine.

Respiratory syncytial virus (RSV) is underdiagnosed and a significant cause of morbidity and mortality, especially in adults older than 65 years of age. In 2023, 2 RSV vaccines were approved by the US Food and Drug Administration (FDA): RSVPreF3 (Arexvy, GlaxoSmith-Kline) and RSVpreF (Abrysvo, Pfizer). These vaccines have shown safety and efficacy in preventing RSV infections in clinical trials. These nonlive vaccines can be safely administered to all patients regardless of immunosuppression. The Advisory Committee on Immunization Practices (ACIP) has recommended offering either of these 2 vaccines to adults 60 years of age and older based on shared decision-making that takes into consideration their risks for complications if infected with RSV. Work from our group has demonstrated that patients with IBD have an increased risk of developing RSV. In particular,

those patients receiving immunomodulators or anti-TNF agents are at increased risk. Patients with IBD are also at increased risk for hospitalization. In my practice, I recommend RSV vaccination for patients 60 years and older based on their personal risk factors such as diabetes, chronic kidney or lung disease, or receipt of immunosuppressive therapy. Additional data are needed to understand the cost-effectiveness of administering these vaccines to patients with IBD under 60 years of age who are immunocompromised.

G&H What are the latest updates for COVID-19 vaccination in this patient population?

FF With the rapid spread of the COVID-19 Omicron variant, updated vaccines against this strain were approved in the fall of 2023. Individuals previously vaccinated with the original bivalent mRNA-1273 (Moderna) or BNT162b2 (Pfizer-BioNTech) vaccines should receive the updated formulations of either of these messenger RNA (mRNA) vaccines or the Novavax COVID-19 Vaccine, Adjuvanted. For individuals who have concerns regarding mRNA vaccines, the Novavax vaccine uses well-established and longstanding technology similar to the hepatitis B and shingles vaccines combining the spike protein of the COVID-19 virus with an adjuvant. Non-immunosuppressed patients can receive a single dose of these vaccines, whereas individuals who are significantly immunocompromised should discuss with their provider if an additional dose is appropriate. If a patient with IBD

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at risk for adverse outcomes is diagnosed with COVID-19, nirmatrelvir/ritonavir (Paxlovid, Pfizer) is recommended. In a study that my colleagues and I conducted, nirmatrelvir/ritonavir was shown to reduce the severity of illness from COVID-19 in patients with IBD.

G&H What are the most recent updates for pneumococcal vaccines in patients with IBD?

FF In 2021, the FDA licensed 2 new pneumococcal vaccines for use in adults (pneumococcal conjugate 15-valent vaccine [PCV15; Merck] and pneumococcal conjugate 20-valent vaccine [PCV20; Pfizer]). Individuals 65 years of age and older who have never received a pneumococcal vaccine can receive PCV20 alone or PCV15 followed 1 year later by pneumococcal polysaccharide 23-valent vaccine (PPSV23; Merck). In my practice, I simply offer PCV20 to these patients. The ACIP recommends the administration of pneumococcal vaccine in adults 19 years of age and older who are immunocompromised. It is known that patients with IBD are at increased risk for upper respiratory tract infections, including pneumococcal pneumonia, based on the innate immune dysfunction associated with IBD itself as well as the use of immunosuppressive drugs. Therefore, in my practice, I offer PCV20 to all patients with IBD 19 years of age and older who have not previously been vaccinated. The ACIP's pneumococcal vaccine recommendations for patients with a previous history of receiving pneumococcal conjugate 13-valent vaccine or PPSV23 are outlined at <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/pneumo.html>.

G&H What other vaccines are recommended in patients with IBD?

FF Patients with IBD should receive all standard vaccines recommended to individuals of their age group. These include vaccines for hepatitis A, hepatitis B, human papillomavirus (HPV), and shingles. I screen for hepatitis A

and B exposure at the time of the initial office visit and vaccinate nonimmune patients. Patients with IBD have an increased risk of developing shingles. Specific classes of drugs such as thiopurines and Janus kinase (JAK) inhibitors further increase this risk. Patients who have previously received the live shingles vaccine Zostavax, which is no longer available in the United States, should receive the inactive recombinant zoster vaccine (Shingrix, GlaxoSmithKline). It is also recommended that patients with a history of shingles receive the recombinant zoster vaccine, as vaccination has been shown to reduce future episodes of the disease. Although the original indication for the recombinant zoster vaccine was for patients 50 years of age and older, the Centers for Disease Control and Prevention and ACIP updated their recommendations in 2021 so that immunocompromised patients 19 years of age and older or those at risk for immunosuppression can receive the inactive recombinant zoster vaccine. In my practice, I recommend this vaccine to all patients with IBD aged 19 years and older. A recent analysis by our group demonstrated that the shingles vaccine is cost-effective for all adults with IBD.

G&H Has immunosuppression been demonstrated to affect the efficacy of these vaccines?

FF Some but not all immunosuppressive therapies can attenuate the response to vaccines. One meta-analysis evaluating immune response to hepatitis A and B, pneumococcal, and influenza vaccines found that immunosuppressed patients with IBD had a significantly lower vaccine-induced immune response compared with nonimmunosuppressed patients. Use of corticosteroids and JAK inhibitors can also decrease immune response to certain vaccines. As such, the ideal time to vaccinate patients is at the time of diagnosis before immunosuppressive therapy is initiated. Vaccinating patients prior to beginning immunosuppressive therapy is likely to yield the highest immune response. A blunted immune response, however, may nonetheless protect against developing severe illness, and clinicians should use every opportunity to update vaccinations when interacting with patients, including visits to an infusion center. If patients with IBD are flaring, the primary goal should be to control their disease. A study by Morwani and colleagues showed that there is no reason to hold immunosuppressive therapy when administering COVID-19 vaccines. Patients on significant immunosuppressive therapy should not receive live vaccines. The most commonly encountered live vaccines are the measles, mumps, and rubella vaccine as well as the varicella (chickenpox) vaccine. There are also a number of live vaccines administered for international travel, and

immunocompromised patients should be evaluated by infectious disease specialists or at a traveler's clinic.

G&H Which cancer screenings are recommended in patients with IBD?

FF It is known that patients with longstanding Crohn's disease are at increased risk of developing melanoma. In addition, certain medications such as thiopurines and JAK inhibitors are associated with an increased risk of nonmelanoma skin cancer. For those reasons, I refer all patients with IBD to a dermatologist regardless of their age for an initial evaluation. The dermatologist can then stratify the patient based on personal history of sun exposure, family history of skin cancer, and other risk factors, and can then determine the frequency of follow-up visits.

Women with IBD who are immunocompromised, especially those receiving thiopurines and those infected with HPV, are at increased risk for developing cervical cancer. I refer women to their primary care provider or gynecologist to discuss the frequency of cervical cancer screening, which is dependent on several factors, including sexual history, HPV infection, and smoking.

In terms of colon cancer screening, I follow the recommendations of the American Gastroenterological Association that were published by Murthy and colleagues in *Gastroenterology* in 2021. These recommendations stratify patients based on their personal risk factors to surveillance colonoscopy yearly, every 2 or 3 years, or every 5 years.

G&H What are the current screening recommendations for osteoporosis in this patient population?

FF A subset of patients with IBD are at increased risk of developing osteoporosis. The American College of Gastroenterology preventive care guidelines, which I and other IBD experts worked on, recommend that patients with ulcerative colitis or Crohn's disease with conventional risk factors for abnormal bone mineral density (older age, White or Asian race, female sex, and use of corticosteroids) should undergo screening for osteoporosis with bone mineral density testing at the time of diagnosis and periodically thereafter.

G&H Should vitamin D levels be checked in all patients with IBD?

FF In addition to its effects on bone metabolism, vitamin D has immunomodulatory effects and has been implicated both in the development of IBD and as an adjunctive treatment for IBD. Given the high rates of vitamin D deficiency in patients with IBD, especially in

patients with Crohn's disease, I check vitamin D levels in all patients with IBD and supplement with oral vitamin D as needed. Vitamin D supplementation is well tolerated. Administering additional vitamin D, along with calcium, to patients receiving corticosteroids is essential to maintaining bone health.

G&H What other health care maintenance is recommended?

FF Patients with chronic disorders, including IBD, have increased risks of anxiety and depression. Identifying these patients and referring them for appropriate treatment is associated with improved quality of life and better disease control.

It is also important to identify patients with IBD who smoke. Smoking is associated with increased adverse events in patients with Crohn's disease. Given the multitude of adverse effects of smoking, all patients with IBD should be counseled to discontinue smoking.

G&H What is the role of the gastroenterologist in promoting vaccination and health care maintenance in patients with IBD?

FF As more patients with IBD are treated with advanced therapies that may place them at increased risk for vaccine-preventable diseases or malignancies such as nonmelanoma skin cancer, it is essential that patients receive appropriate vaccinations and other preventive health measures. Because gastroenterology clinicians are often the only provider seen by this subset of patients, it is incumbent upon us to be proactive in recommending health care maintenance for these patients. I and others have advocated that gastroenterology providers be at the forefront for recommending vaccines and routine health care maintenance for their patients with IBD. Working with primary care providers is to be encouraged, but given time constraints in primary care practices, gastroenterologists taking ownership for these tasks is more likely to yield higher rates of vaccination and successful completion of other health care maintenance tasks. It is not expected that practices offer vaccination on-site but rather that there is ample access to essentially all vaccines at large pharmacies where walk-in service is available with real-time confirmation that vaccine administration is covered by insurance.

G&H What are the main challenges of following these health care recommendations, and how can the challenges be overcome?

FF The main challenges revolve around time constraints

in routine office visits to discuss vaccination and other health care maintenance tasks. To help overcome such challenges, many of these tasks can be managed by other members in the office, including registered nurses, nurse practitioners, physician assistants, and, in some practices, PharmDs, as my colleagues and I detailed in an article published in *Gastroenterology* last year. Several studies have demonstrated that a provider's recommendation

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for vaccination carries significant weight in convincing patients to receive preventative health services. As such, providers should be proactive and encourage vaccination and other health maintenance tasks for their patients. Checklists from the Crohn's and Colitis Foundation as well as Cornerstones Health can be useful adjuncts in helping providers remember appropriate screening tests, vaccinations, and monitoring of patients on advanced therapies.

G&H How can reluctant patients be encouraged to follow these recommendations?

FF The exacerbation of underlying IBD is a concern raised by many patients. Clinicians should share with patients that data from multiple different studies confirm that there is no increased risk of IBD exacerbation with vaccination. In a 2022 systematic review and meta-analysis of 13 studies with more than 2000 patients looking at the influenza, pneumococcal, recombinant zoster, and hepatitis B vaccines, my colleagues and I found that the majority of adverse events were mild and local, as typically

seen with vaccines in individuals without IBD. Flares of IBD were reported in 2% of patients, consistent with the background rate of flare.

In addition, I let patients know that I personally receive age-specific recommended vaccines to demonstrate my belief in their safety. Vaccination, especially with the rapid development and rollout of COVID-19 vaccines, is a polarizing issue in the United States. As clinicians, we need to rely on decades of science demonstrating the benefits of vaccination in a nonjudgmental fashion while ultimately respecting the patient's personal decision.

Disclosures

Dr Farraye has received consulting fees from Avalo Therapeutics, BMS, Braintree Laboratories, Fresenius Kabi, GI Reviewers, GSK, IBD Education Group, Iterative Health, Janssen, Pfizer, Pharmacosmos, Sandoz Immunology, and Viatrix. He serves on a Data and Safety Monitoring Board for Eli Lilly and Company.

Suggested Reading

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