

Invited Editorial

On-site Availability Improves Vaccination Rates in Patients With Inflammatory Bowel Disease

Vaccines play a crucial role in preventing several infections in patients with inflammatory bowel diseases (IBDs) and an important aspect of preventative care for our patients.¹ Multiple studies have confirmed that vaccinations are safe and efficacious for patients with IBD. Despite the established importance of vaccination and the reassuring safety profile, vaccination rates remain low among patients with IBD. Many barriers interfering with vaccination have been identified and still need to be overcome. In this month's *Crohn's and Colitis* 360 edition, Hussain et al and coinvestigators from Yale, report that offering on-site vaccines in the office enhances vaccine completion rates.²

Patients with IBD are at an increased risk for contracting several vaccine preventable diseases, including influenza, pneumonia, herpes zoster, among several others.^{3–6} This risk is increased due to inherent immune dysregulation associated with IBD, immunosuppressive therapy, malnutrition, including other comorbidities.⁷ Several studies have confirmed low vaccination rates in patients with IBD.^{1,8}

Several barriers to vaccination exist and may play a role in the low rates of vaccination among patients with IBD when compared to the general population. Our role as clinicians who care for patients with IBD should focus on addressing such barriers to improve vaccine uptake. Barriers for vaccination include lack of knowledge of both primary care physicians and gastroenterologists about recommended vaccinations for patients with IBD, despite clear guidelines and available checklists to improve vaccination rates.^{1,8} Similarly, lack of ownership and responsibility from both, primary care physicians and gastroenterologists, toward vaccination in patients with IBD contribute to the low vaccination rates. Studies have shown that most primary care physicians did not feel comfortable providing immunization advice for patients with IBD. It is advised that gastroenterology clinicians assume responsibility for providing immunization recommendations for their patients with IBD and if unable to administer the vaccines, advise the patient to be vaccinated at their local pharmacy.⁹ Additionally, a “cocoon” vaccination strategy should be implemented by making sure that a patient's family members are also up to date with their immunizations.

A recent study evaluated barriers to administration of vaccines at IBD Centers across the United States and identified that over a third of the centers (36%) cannot administer vac-

cines to patients with IBD due to inability to stock vaccines because of cost, inadequate storage facilities, lack of staff to administer vaccines, and concerns over reimbursement.¹⁰ Many vaccines require a series of vaccination such as the inactive shingles vaccine, hepatitis B vaccines making it even more challenging to coordinate office-centered vaccinations, particularly for patients driving far distances to visit their IBD specialist. When available, delegating a medical assistant to review immunization history and vaccinate per protocol in offices that stock the most common vaccines has been shown to improve vaccine uptake.⁹ Other alternative methods to promote uptake include leveraging electronic health records to remind patients and their primary care providers about need for a certain vaccination, as well as providing disease specific information and education to patients through the electronic health record portal.¹⁰ Apte et al recommend sending patients directly to their local pharmacy for vaccination as an alternative resource to improve vaccination rates among IBD patients.¹¹ This recommendation was based on demonstrating that pharmacies have adequate vaccine supplies, are open for extended hours, and can process patient's insurance policies, and at times offer vaccinations for a minimal fee or for free. A simple written educational form designed to assess vaccination status and enable providers to offer same day vaccination has also been shown to be another important intervention to increase vaccination uptake among IBD patients.¹²

In the retrospective chart review of 356 patients with IBD by Hussain et al, the authors compared vaccination discussion and vaccination completion rates between 2 IBD centers that were staffed by the same physicians and fellows, but differed only by the availability for an on-site vaccination service.² This study was conducted prior to the COVID-19 pandemic and compared face-to-face visits, not telehealth appointments. Both offices utilized an electronic medical record preventative health services IBD checklist. On-site vaccination was performed by an IBD nurse, immediately after the conclusion of the office visit, in offices that offered on-site vaccination, while patients seen in the other office were referred to their primary care physicians or local pharmacy for vaccine administration. The vaccines that were evaluated included: influenza, pneumococcal pneumonia, herpes zoster, hepatitis A, hepatitis B, tetanus–diphtheria–pertussis, and human papilloma virus vaccines.

There were no differences in demographics, IBD subtype, and IBD medication use between the group of patients presenting to the on-site vaccination office (174 patients) and those presenting to the non-on-site vaccination office (182 patients). When evaluating the specific vaccination discussion rates, there was no difference in discussions of the influenza vaccine, pneumococcal vaccine, or the HPV vaccine between both offices, but discussions about the herpes zoster vaccine, tetanus–diphtheria–pertussis, and rates of serologies checked for the hepatitis A and B vaccines were higher in the office that offered on-site vaccination compared to the other office.

When comparing vaccination completion rates, the only significant impact was seen with the influenza vaccine, with higher rates noted in the on-site vaccination office. There were no differences in completion rates for the pneumococcal vaccine, herpes zoster vaccine, or the human papilloma virus vaccine. Results from hepatitis A and hepatitis B vaccinations were not very clear as only documentation of immunity was considered for hepatitis A (and this was found to have significantly higher rates of immunity in the on-site vaccination site) while documentation of immunity or receiving hepatitis B vaccine was noted for hepatitis B (with no difference in the results between both offices). It is important to note that pneumococcal, herpes zoster, and hepatitis B completion rates were numerically higher in the office that offered on-site vaccination.


Results of this study demonstrated that vaccination discussion rates and vaccination completion rates were enhanced for certain vaccines among the appointment visits that occurred in the office that had on-site vaccination services. The convenience and immediate availability of vaccines was thought to enhance vaccine completion rates. Increasing vaccination rates in our patients with IBD is a priority especially as we navigate the COVID-19 pandemic, and no one system will work for all practices. As we all strive to have our patients with IBD get vaccinated, implementing on-site vaccination in the office appears to be one way to accomplish this task.

Funding

None declared.

Conflicts of Interest

None declared.

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