ACG Clinical Guideline: Preventive Care in Inflammatory Bowel Disease

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Abstract

Recent data suggest that inflammatory bowel disease (IBD) patients do not receive preventive services at the same rate as general medical patients. Patients with IBD often consider their gastroenterologist to be the primary provider of care. To improve the care delivered to IBD patients, health maintenance issues need to be co-managed by both the gastroenterologist and primary care team. Gastroenterologists need to explicitly inform the primary care provider of the unique needs of the IBD patient, especially those on immunomodulators and biologics or being considered for such therapy. In particular, documentation of up to date vaccinations are crucial as IBD patients are often treated with long-term immune-suppressive therapies and may be at increased risk for infections, many of which are preventable with vaccinations. Health maintenance issues addressed in this guideline include identification, safety and appropriate timing of vaccinations, screening for osteoporosis, cervical cancer, melanoma and non-melanoma skin cancer as well as identification of depression and anxiety and smoking cessation. To accomplish these health maintenance goals, coordination between the primary care provider, gastroenterology team and other specialists is necessary.

Introduction

The purpose of this article is to review preventive care for the inflammatory bowel disease (IBD) patient. Health maintenance issues include assessment for vaccinations, screening for cervical cancer, melanoma and non-melanoma skin cancer (NMSC), and osteoporosis. Identification of depression and anxiety and smoking cessation in IBD patients will also be reviewed. To accomplish these goals, coordination between the primary care provider, gastroenterology team and other specialists is necessary. Colorectal dysplasia surveillance and management will not be addressed in this review.

As part of this guideline preparation, a literature search was conducted using Ovid MEDLINE from 1946 to 2015, EMBASE 1988 to 2015, and SCOPUS from 1980 to 2015. The major terms were the controlled subject headings in MeSH: IBDs, colitis, ulcerative, and Crohn's disease. These were translated into the EMTREE controlled vocabulary as enteritis, ulcerative colitis (UC), and Crohn's disease (CD). Words in the title for these diseases were also included. The balance of the search involved the concepts of interest, including vaccination, immunizations, specific vaccines and diseases, as well as screening, cervical cancer, melanoma, NMSC, smoking, depression, osteoporosis, etc. The results were limited to trials, meta-analyses, systematic reviews, and existing guidelines. In some areas where trials were unavailable cohort studies and reviews were included. Each author performed an updated literature search in 2016 to include more recently published articles.

To evaluate the level of evidence and strength of recommendations, we used the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system (1). The level of evidence could range from “high” (implying that further research was unlikely to change the authors’ confidence in the estimate of the effect), “moderate” (further research would be likely to have an impact on the confidence in the estimate of effect), “low” (further research would be expected to have an important impact on the confidence in the estimate of the effect and would be likely to change the estimate), or “very low” (any estimate of effect is very uncertain). The strength of a recommendation was graded as “strong” when the desirable effects of an intervention clearly outweigh the undesirable effects and as “conditional” when there is uncertainty about the trade-offs. We preferentially used meta-analyses or systematic reviews when available, followed by clinical trials and retrospective cohort studies. To determine the level of evidence, we entered data from the papers of highest evidence into the GRADE program (accessible at http://www.gradepro.org). The recommendation statements from this guideline are shown in Table 1. Summary statements, when listed, are designed to be descriptive in nature without associated evidence-based ratings.

Table 1. Preventive health maintenance recommendations

Influenza Vaccination	
1a.	All adult patients with IBD should undergo annual vaccination against influenza. (Conditional recommendation, with very low level of evidence).
1b.	Those on immunosuppressive therapies and their household contacts should receive the non-live trivalent inactivated influenza vaccine, but not the live inhaled influenza vaccine. (Conditional recommendation, with very low level of evidence).
Pneumococcal Vaccination	
2.	Adult patients with IBD receiving immunosuppressive therapy should receive pneumococcal vaccination with both the PCV13 and PPSV23, in accordance with national guidelines. (Conditional recommendation, with very low level of evidence).
Herpes Zoster Vaccination	
3.	Adults with IBD over the age of 50 should consider vaccination against herpes zoster, including certain subgroups of immunosuppressed patients. (Strong recommendation, with low level of evidence).
Varicella Vaccination	
4.	Adults with IBD should be assessed for prior exposure to varicella and vaccinated if naive before initiation of immunosuppressive therapy when possible. (Conditional recommendation, with very low level of evidence).
Yellow Fever Vaccination	
5.	Patients with IBD who are immunosuppressed and traveling to endemic areas for yellow fever should consult with a travel medicine or infectious disease specialist prior to travel. (Conditional recommendation, with very low level of evidence).
Meningococcal Vaccination	
6.	Adolescents with IBD should receive meningococcal vaccination in accordance with routine vaccination recommendations. (Conditional recommendation, with very low level of evidence).

Table 1. Preventive health maintenance recommendations (continued)	
Live Vaccinations in Household Members of Immunosuppressed IBD Patients	
7.	Household members of immunosuppressed patients can receive live vaccines with certain precautions. (Conditional recommendation, with very low level of evidence).
Vaccinate Prior to Immunosuppression	
8.	Adults with IBD should receive age-appropriate vaccinations before initiation of immune suppression when possible. (Conditional recommendation, with very low level of evidence).
TDAP, Hepatitis A, Hepatitis B and Human Papilloma Virus Vaccinations	
9.	Vaccination against Tdap, HAV, HBV, and HPV should be administered as per Advisory Committee on Immunization Practice guidelines. (Conditional recommendation, with very low level of evidence).
Screening for Cervical Cancer	
10.	Women with IBD on immunosuppressive therapy should undergo annual cervical cancer screening. (Conditional recommendation, very low level of evidence).
Screening for Depression and Anxiety	
11.	Screening for depression and anxiety is recommended in patients with IBD. (Conditional recommendation, low level evidence).
Screening for Melanoma and Non-Melanoma Skin Cancer	
12a.	Patients with IBD (both ulcerative colitis and CD) should undergo screening for melanoma independent of the use of biologic therapy. (Strong recommendation with low level of evidence).
12b.	IBD patients on immunomodulators (6-mercaptopurine or azathioprine) should undergo screening for NMSC while using these agents, particularly over the age of 50. (Strong recommendation with low level of evidence).
Screening for Osteoporosis	
13	Patients with conventional risk factors for abnormal bone mineral density with ulcerative colitis and CD should undergo screening for osteoporosis with bone mineral density testing at the time of diagnosis and periodically after diagnosis. (Conditional recommendation with very low level evidence).
Smoking Cessation in Patients with Crohn's Disease	
14	Patients with CD who smoke should be counseled to quit. (Strong recommendation with low level evidence).
HAV, hepatitis A virus; HBV, hepatitis B virus; HPV, humanpapilloma virus; IBD, inflammatory bowel disease; NMSC, non-melanoma squamous cell cancer; PCV, pneumococcal conjugate vaccine; PPSV, pneumococcal polysaccharide vaccine.	

Table 2. Inactivated vaccine recommendations[a]

Infectious agent	Target population	Check titer before immunization	Dosing regimen
Corynebacterium diphtheria, Clostridium tetani, Bordetella pertussis	All patients	No	A single dose of Tdap recommended at age 11 through 64 years; Td booster every 10 years
Hepatitis A	All patients	Yes	2 doses at 0 and 6 months
Hepatitis B	All patients	Yes	3 doses at 1, 1–2 and 4–6 months; check titers 1 month after the last dose; if no response, 3 options: revaccinate, double dose HBV vaccination or combined HAV/HBV vaccine
HPV	Female and male; 11 to 26 years of age	No	3 Doses at 0, 2, and 6 months
Influenza	All patients	No	Annual immunization with trivalent inactivated influenza vaccine; “high dose” vaccine for patients 65 and older; live attenuated intranasal influenza vaccine is contraindicated in immunosuppressed patients
Neisseria meningitidis	High risk adults	No	Two or three doses depending on vaccine
Streptococcus pneumonia	All patients	No	If no previous vaccination, PCV13 followed by a dose of PPSV23 after 2–12 months; if received 1 or more doses of PPSV23 should receive PCV13 one or more years after PPSV23; another dose of PPSV23 should be administered 5 years after the initial PPSV23 dose and at age 65 years or older if at least 5 years have elapsed since their previous PPSV23 dose

HAV, hepatitis A; HBV, hepatitis B; PCV, pneumococcal conjugate vaccine; PPSV, pneumococcal polysaccharide vaccine.
[a]See text for details.

Table 3. Live vaccine recommendations[a]

Infectious agent	Target population	Check titer before immunization	Dosing regimen	In patient already on immunosuppressive treatment	Vaccination for family contacts
Measles Mumps Rubella	If unknown vaccination history	Yes	Two doses (>28 days apart) at least 6 weeks before starting immunosuppressive therapy	Contraindicated	Yes
Varicella	If unknown vaccination history or exposure	Yes	2 doses (4–6 weeks apart) at least 1 month before starting immunosuppressive therapy	Depends on the type of immunosuppressive medications	Yes, if vaccine related rash occurs, immunosuppressed IBD patient should avoid contact
Herpes zoster	For patients aged 50 or older	No	1 dose at least 1 month before starting immunosuppressive therapy	Depends on the type of immunosuppressive medications	Yes, if vaccine related rash occurs, immunosuppressed IBD patient should avoid contact

IBD, inflammatory bowel disease.
[a]See text for details.

Conclusions

Patients with IBD often consider their gastroenterologist to be the primary provider of care. Health maintenance issues need to be co-managed by both the gastroenterologist and primary care team. Gastroenterologists need to explicitly inform the primary care provider of the unique needs of the IBD patient, especially those on immunomodulators and biologics or being considered for such therapy. In addition to vaccinations, referral to dermatology, gynecology, psychiatry, and endocrinology may be necessary on a case by case basis. Coordination between the gastroenterology team and other providers is the basis for improving the quality of care that is provided to patients with IBD.