Health Maintenance in IBD: What’s Required and Who’s Responsible?

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Learning Objectives

- Review screening for cervical, colon, and skin cancer in the IBD patient
- Discuss smoking cessation, bone health, and screening for depression and ocular problems
- Understand the importance of vaccinating the IBD patient
- Review efficacy, safety, and schedule of vaccinations in the IBD patient
Health Maintenance

- IBD patients do not receive preventive services at the same rate as general medical patients
- Gastroenterologists are often the primary decision makers for the IBD patient
- Delegate routine health care issues to the primary care clinician


Health Maintenance

- Clarify the limits of your responsibilities with the patient
- Offer guidance on the unique health maintenance needs in IBD patient on immunomodulators and biologic agents
- Should certain health maintenance tasks such as vaccinations be the responsibility of the treating gastroenterologist?

Cervical Cancer and Pap Testing

- Cervical (and anal) cancer is caused by persistent infection with the oncogenic human papilloma virus (HPV)
- Meta-analysis of 5 cohort studies and 3 case-control studies of 77,116 IBD patients with 995 women on any immunosuppression with cervical high-grade dysplasia/cancer
- Patients with IBD had an increased risk of cervical high-grade dysplasia/cancer compared with healthy controls (odds ratio = 1.34, 95% CI: 1.23-1.46)

Pap Testing in IBD Patients

- Vaccination against HPV is warranted
- Document an up-to-date PAP smear ideally prior to immunosuppressive therapy
  - Rule out HPV infection
  - Rule out an abnormal cervical cytology
- Women on immunomodulators should follow ACOG guidelines for yearly PAP testing


Skin Cancer
Non Melanoma Skin Cancer (NMSC)

- Basal cell and squamous cell carcinoma
- Estimated 3.5 million cases per year of NMSC
- No increased risk of NMSC in IBD patients
- Increase risk in immunosuppressed IBD patients
  - Thiopurine use (OR: 4.27, CI 3.08-5.92)
  - Anti-TNF use (OR: 2.18, CI 1.07-4.46)
  - Combined thiopurine and anti-TNF agent (OR: 6.75, CI 2.74-16.65)
- Risk decreases with discontinuation of Thiopurines


Skin Cancer Recommendations

- Despite lack of RCTs, it seems prudent to educate patient on sun protection strategies
- Cost effective analysis: At a willingness-to-pay threshold of $50,000, screening all patients with CD over the age of 50 annually for NMSC proved the most cost-effective strategy
- Consider yearly dermatology evaluation in patients on immunosuppressive agents, especially in patients older than 50

Bone Health

Bone Health In IBD Patients

- Measure 25 OH Vitamin D levels in all patients
- Selectively order bone density scan (DEXA) in IBD patients with risk factors for osteoporosis and osteopenia
- Minimize steroid use when possible, adding steroid-sparing agents where appropriate
- Supplementation with calcium, vitamin D in all patients on steroids and consider referral to endocrinology to consider bisphosphonates in high risk individuals

Smoking Cessation in CD Patients

- Increased prevalence of Crohn’s disease in smokers
- Crohn’s disease patients who are smokers
  - More severe ileal disease, more frequent flares, an increased need for steroids, and immunomodulators and higher rates of surgery
- Smoking cessation is a crucial aspect in the management of Crohn’s patients that is often overlooked

Smoking Cessation in CD Patients

- Smoking cessation
  - Decreased risk of relapse
  - Decreases need for steroids or immunomodulators

- Negative effects of smoking are dose-dependent
  - Any decrease in the number of cigarettes smoked daily can improve the course of Crohn’s disease


Depression
Depression

- May affect as many as 15-35% of patients with IBD

- Predisposing factors: chronic relapsing nature of IBD and some medications used as treatment

- Appropriate medical treatments are available and well tolerated


Depression

1. “Over the past month, have you felt down, depressed, or hopeless?”

2. “Over the past month, have you felt little interest or pleasure in doing things?”

Ophthalmologic Issues in the IBD Patient

- Approximately 10% of IBD patients develop ocular problems related to the disease itself or to disease treatment.
- Several ocular manifestations are associated with significant morbidity including uveitis, scleritis, episcleritis, corneal disease, and keratoconjunctivitis sicca.
- Patients on chronic corticosteroids should be evaluated by an ophthalmologist for glaucoma and cataracts.

Surveillance for Colorectal Neoplasia

- We recommend that all patients with UC or CD colitis undergo a screening colonoscopy 8 years after disease onset to (1) re-evaluate extent of disease and (2) initiate surveillance for colorectal neoplasia. (Moderate)

- We recommend surveillance colonoscopy be performed every 1 to 3 years beginning after 8 years of disease in patients with UC with macroscopic or histologic evidence of inflammation proximal to and including the sigmoid colon and for patients with Crohn’s colitis with greater than one-third of colon involvement. (Moderate)

- We recommend chromoendoscopy with targeted biopsies as the preferred surveillance technique to maximize dysplasia detection. (Moderate)

Colorectal Neoplasia Surveillance

• We suggest that chromoendoscopy-targeted biopsies are sufficient for dysplasia surveillance in patients with IBD and that consideration should be given to taking two biopsies from each colon segment for histologic staging to assess extent and severity of inflammation. (Low)

• We suggest that random biopsies with targeted biopsies of any suspicious appearing lesions remain a reasonable alternative for dysplasia surveillance if the yield of chromoendoscopy is reduced by significant underlying inflammation, significant pseudopolyposis, or poor preparation or if chromoendoscopy is not available. (Low)

• We recommend that patients with IBD whose polypoid dysplastic lesions have been removed completely receive endoscopic surveillance at 1 to 6 months and at 12 months, with yearly surveillance thereafter. (Moderate)

Colorectal Neoplasia Surveillance

• We suggest that patients with IBD whose non-polypoid dysplastic lesions have been removed completely receive endoscopic surveillance at 1 to 6 months and at 12 months, with yearly surveillance thereafter. (Low)

• We recommend proctocolectomy in patients with IBD if a detected lesion is not endoscopically resectable, if there is evidence of dysplasia at the base of the lesion, or if endoscopically invisible HGD or multifocal LGD is found in the colon during a high-quality chromoendoscopy examination. (Moderate)

Vaccinating the IBD Patient
A Practical Guide

The Vaccine Problem

- Immunomodulators and biologics used to treat IBD puts patients at increased risk for infections
  - Several of these are vaccine preventable
  - Multiple case reports of infections including fulminant hepatitis or fatal varicella

- IBD patients (like other patients on immunosuppressive therapy) are not being vaccinated appropriately

Vaccination in IBD Patients

Survey of 108 gastroenterologists (2009)

- Only 50% of GI providers ask about vaccinations always or most of the time
- Poor knowledge regarding the appropriate vaccines to recommend: 20-30% would erroneously give live vaccine to immunosuppressed patient while 25-35% would erroneously hold live vaccine to immunocompetent patient
- Majority thought PCP was responsible for determining which vaccinations to give (65%) and administering the vaccine (83%)


PCPs Hesitant to Treat IBD Patients

- Survey of 61 attendees at a family medicine review course
- Only 37% of doctors felt comfortable providing primary care to IBD patients across a range of illness severity
- Only 30% felt comfortable coordinating vaccinations for the immunosuppressed IBD patient

GI Responsibility To Our Patients

- Gastroenterologists are often the primary decision makers for the IBD patient
- Should take a more proactive role in assuring that patients are vaccinated appropriately
- May allow for the administration of the appropriate vaccinations before immunosuppressive therapy is initiated


Keep your patients safe by being sure you and your staff are up to date with your own vaccinations
Will the Vaccine Work or Exacerbate the IBD?

- Diminished immune response in patients on anti TNFs alone or with immunomodulators but not with vedolizumab
- No evidence that vaccination exacerbates IBD

Vaccines in Subsets of Adults Aged 19 Years or Older


Vaccines to Consider

- IBD is rare before age 5 so most patients have received all their childhood vaccines
- In adults, consider hepatitis A, hepatitis B, HPV, influenza, pneumococcal, herpes zoster, and varicella vaccinations
Definition of “Immunosuppressed”

- Rx with glucocorticoids ( >prednisone 20mg/day equivalent for 2 or more weeks, and within 3 months of stopping)
- Rx with effective doses of 6MP/azathioprine or recent discontinuation within previous 3 months
- Rx with methotrexate or recent discontinuation within previous 3 months
- Rx with infliximab, adalimumab, certolizumab, or natalizumab or recent discontinuation within the previous 3 months
- Significant protein-calorie malnutrition


General Vaccination Considerations

Titers to check at first office visit:

- MMR – if vaccination history unknown
- Varicella – if vaccination history or history of chicken pox/zoster unknown
- Hepatitis A – except those with evidence of protective titer within 5 years of vaccine administration
- Hepatitis B – except those with evidence of protective titer within 5 years of vaccine administration

Vaccinations to administer in specific patient groups regardless of immunosuppressive drug use:

- Tdap
- HPV
- Influenza (yearly)
- Pneumococcal (PCV 13 and PPSC 23)
- Hepatitis A (if not immune)
- Hepatitis B (if not immune)
- Meningococcal

Vaccinations to consider if NO plans to start immunosuppressive therapy in 4-12 weeks:

- MMR (if not immune)
- Varicella (if not immune)
- Zoster (if age 60 or older)

Inactivated Vaccine Recommendations (Regardless of Immunosuppression)

- Td/Tdap q 10 years
- HPV- 3 doses (0, 2, 6 months) for males and females 12-26 years
- Influenza annually
- PCV 13 given 8 weeks prior to PPSV23 or one year later
- Pneumococcal (PPSV 23) 1-2 doses (one time revaccination after 5 years if immunosuppressed)
- Hepatitis A- 2 doses
- Hepatitis B- 3 doses
  - Check post-vaccine titers 1 month after last dose
  - If no response, then vaccinate with double dose (or with combination hepatitis A/B)
- Meningococcal vaccine if risk of exposure

**Live Vaccine Recommendations**

<table>
<thead>
<tr>
<th>Pre vaccination Titer?</th>
<th>Before IMs?</th>
<th>Already on IMs</th>
<th>Family Vaccination</th>
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</thead>
<tbody>
<tr>
<td>Herpes Zoster</td>
<td>No</td>
<td>Contraindicated 1–3 months before start of biologics *</td>
<td>Biologics: contraindicated *</td>
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<tr>
<td></td>
<td></td>
<td>Low dose immunomodulators OK **</td>
<td>Low dose immunomodulators OK **</td>
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<tr>
<td>Varicella</td>
<td>Yes</td>
<td>Contraindicated 1–3 months before start</td>
<td>Contraindicated</td>
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* See next slide, ** <0.4 mg/kg/wk MTX, <3.0 mg/kg/d AZA, <1.5 mg/kg/d 6-MP, <14 d prednisone


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**Zoster Vaccine in Patients on Anti-TNFs**

- Large retrospective administrative database cohort study of over 460,000 patients with immune disorders including IBD
- No cases of zoster in 633 patients on biologic agents in the 42 days after receiving zoster vaccine
- Adjusted hazard ratio for the individuals receiving vaccine was 0.61 (95% CI, 0.52-0.71) over a median of 2 years of follow up
- Vaccine use was safe and associated with a lower zoster incidence over a median of 2 years of follow-up

Special Considerations

- OK to vaccinate household contacts of immunosuppressed IBD patient with live vaccine
  - Rotavirus: meticulous hand washing with diaper changes
  - Varicella and zoster: avoid contact if household member develops vaccine related rash

- Vaccination for infants born to mothers on biologic agents
  - Defer the live vaccine (rotavirus) until 6 months old or check infants drug level of infliximab or adalimumab and administer when no detectable drug

- Vaccinations for immunosuppressed travelers


The IBD Patient Leaving the Country

<table>
<thead>
<tr>
<th>Live Vaccines</th>
<th>Inactivated Vaccines</th>
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<tbody>
<tr>
<td>Yellow fever</td>
<td>Japanese encephalitis</td>
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<tr>
<td>Measles mumps rubella</td>
<td>Rabies vaccine</td>
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<tr>
<td>Oral typhoid</td>
<td>Oral typhoid</td>
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<tr>
<td>Oral polio</td>
<td>Oral polio</td>
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<tr>
<td>Intranasal influenza</td>
<td>Intranasal influenza</td>
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<tr>
<td>TB Bacillus Calmette Guerin (BCG)</td>
<td>Hepatitis B</td>
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<tr>
<td></td>
<td>Hepatitis A</td>
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<tr>
<td></td>
<td>Human papilloma virus (HPV)</td>
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<tr>
<td></td>
<td>Meningococcal</td>
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<td></td>
<td>Tetanus diphtheria (Td)</td>
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<td></td>
<td>Tetanus diphtheria acellular pertussis (Tdap)</td>
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Take Home Messages

- IBD patients have low immunization rates
- IBD patients can mount a response to vaccines
- Immunogenicity is diminished in patients on combination therapy of immunomodulator and anti-TNF agent
- Ideally vaccinate on diagnosis and prior to initiation of immunosuppressive agents
- Take responsibility to vaccinate your IBD patients or make explicit recommendations to the patients PCP
Take Home Messages

- Make sure you and your staff are vaccinated
- Live vaccines are contraindicated in immunosuppressed patients with certain exceptions
- Add diagnosis “Immunosuppressed” to problem list
- Be aware of the risks of cervical, colon and skin cancer
- Discuss smoking cessation, bone health and screen for depression and ocular problems

Thank You

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