

ADVANCES IN IBD

Current Developments in the Treatment of Inflammatory Bowel Disease

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Health Maintenance Assessment for Patients With Inflammatory Bowel Disease



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G&H Why is health maintenance assessment important in patients with inflammatory bowel disease?

SK Many patients with inflammatory bowel disease (IBD) are relatively young (ie, between 18 and 40 years), so they do not see other physicians; many of these patients receive all of their health care from their IBD specialist. Thus, it is particularly important that IBD specialists pay attention to preventable conditions for which primary care physicians (or obstetrician-gynecologists) would normally undertake assessment and screening for the health maintenance of the patient. For example, IBD patients should be assessed for conditions such as osteoporosis, melanoma and nonmelanoma skin cancers, cervical cancer, and depression and anxiety.

G&H Do all IBD patients have an increased risk for osteoporosis or bone health issues?

SK Yes, there are data to suggest that merely having the diagnosis of IBD increases the risk for fracture from osteoporosis by 40%. This risk can further increase depending on the IBD treatments being used (eg, corticosteroids, methotrexate, or total parenteral nutrition). In addition, many IBD patients are vitamin D–deficient and are not very physically active, which are independent risk factors for osteoporosis, as is smoking.

In contrast, it seems that being on anti-tumor necrosis factor (TNF) agents can improve bone health and decrease the risk of osteoporosis. This likely occurs because anti-TNF agents control inflammation.

G&H Why does IBD itself seem to increase the risk of fracture and bone health issues?

SK There are several theories. One is that the inflammation associated with IBD increases the risk of poor bone health. Another theory involves lifestyle factors commonly associated with IBD. Patients with IBD are less mobile and tend to avoid dairy (and thus are vitamin D–deficient), and some IBD patients smoke, all of which lead to an increased risk of fracture and bone health problems. However, osteoporosis can still occur in IBD patients who are physically active and have normal vitamin D levels. Nevertheless, a diagnosis of IBD is probably not enough by itself to increase the risk of bone health issues; other risk factors are likely needed.

G&H According to the current guidelines, which patients with IBD require screening for osteoporosis?

SK Currently, guidelines by both rheumatologic and gastroenterologic societies suggest that IBD patients who have at least 1 risk factor for osteoporosis should be screened; as mentioned above, having the diagnosis of IBD alone is not sufficient for screening. For example, if a patient has been diagnosed with IBD and has been on corticosteroids for longer than 3 months, he or she would be considered to have high enough of a risk of osteoporosis to undergo screening. However, if an IBD patient has never been on corticosteroids, has a normal vitamin D level, does not have a family history of osteoporosis, is not a smoker, does not consume a lot of

alcohol, or is not postmenopausal, he or she does not need to be screened.

G&H If screening is needed, how should it be performed?

SK Screening should consist of a dual-energy x-ray absorptiometry (DEXA) scan. If the scan is normal, then a repeat screening is not necessary until the patient's risk

... all IBD patients should undergo mental health screening.

profile changes (usually menopause for women or age over 65 years for men). Then, the scan should be repeated annually.

In addition, gastroenterologists do not often think about testosterone levels in their male patients, but any man who has hypogonadism should undergo a DEXA scan. If the scan is abnormal, it should be followed up on an annual basis.

G&H Can at-risk patients do anything to reduce their risk of bone loss or osteoporosis?

SK Yes. They can quit smoking and become more physically active. If they are on corticosteroids, they can speak with their health care provider about medical therapies that are not associated with bone destruction (which corticosteroids are). In addition, these patients should be on supplemental calcium, vitamin D, and potentially even a bone-sparing agent.

G&H Do all IBD patients have an increased risk of melanoma and nonmelanoma skin cancers?

SK The diagnosis of IBD in and of itself does not increase the risk for these skin cancers; however, certain IBD treatments (eg, immunomodulators and biologic agents), as well as the fact that many IBD patients are vitamin D–deficient, increase the risk for both melanoma and nonmelanoma skin cancers. For example, for a patient taking a thiopurine, the risk for a nonmelanoma skin cancer can be upwards of 40-fold higher and the risk for melanoma skin cancer is likely 2- to 3-fold higher compared with patients who are on other therapy.

Damage to the DNA of skin cells because of immunomodulator therapy may be the underlying cause of this

increased risk, but the full mechanism for this phenomenon has not been elucidated.

G&H Should all IBD patients on immunomodulators and biologic agents undergo screening for these skin cancers?

SK IBD patients who are on a biologic agent or an immunomodulator should at least undergo screening by a dermatologist to assess their risk for these skin cancers. If the patient is white, has a family history of skin cancer, and lives in a very sunny climate, his or her risk for melanoma and nonmelanoma skin cancers will be higher than an African American or Hispanic patient. The recommended follow-up depends on the individual and how many risk factors he or she has; in particular, a history of skin cancer requires more frequent follow-up visits.

G&H Do all female patients with IBD have an increased risk of cervical cancer?

SK Only female IBD patients who are on immunomodulators (particularly 6-mercaptopurine or azathioprine) are at an increased risk for cervical dysplasia; there are no data to suggest that biologic agents increase the risk for cervical dysplasia. Likely the reason for the increased risk with immunomodulators is that thiopurine therapy increases the risk of cellular damage from viruses, and the majority of cervical dysplasia is driven by the human papillomavirus (HPV). If performed frequently enough, Pap smears can usually catch cervical dysplasia before it turns into cancer. Thus, it is recommended that women with IBD who are taking an immunomodulator should undergo Pap smears on an annual basis rather than every 3 years. This additional screening is needed regardless of whether the patient has been vaccinated against HPV.

G&H What is the current understanding of the relationship between IBD and depression and anxiety?

SK We know that IBD patients are at an increased risk for depression and that the relationship between the 2 conditions is multifactorial. IBD patients should undergo screening for depression because concomitant depression decreases the efficacy of therapy, probably because patients are more likely to nonadhere to their office visits and medications. In addition, perceived stress (whether real or not) or anxiety leads to perceived worsening of symptoms; the patient may not actually have increased levels of inflammation, but he or she complains more about symptoms.

G&H According to the currently available data, how common are depression and anxiety in patients with IBD?

SK Depression and anxiety are fairly common. Depending on the study, up to 20% of IBD patients have some sort of psychiatric or psychological issue. Because there are effective treatment strategies for mental health disorders, and because undiagnosed depression can lead to increased morbidity and health care costs from unnecessary care, all IBD patients should undergo mental health screening.

G&H When and how should patients with IBD be screened?

SK Multiple tools, such as anxiety and depression scales, are available that could be used to screen patients. One such tool is the Hospital Anxiety and Depression Scale (commonly referred to as HADS), which is an easily administered, written questionnaire that patients fill out

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about their anxiety and depression. Another marker that can be used is a quality-of-life score. If a patient has a low quality of life, then he or she likely has some underlying anxiety or depression.

A good time for screening patients is when the diagnosis of IBD is made and then periodically; annual screening is not needed. Certainly, patients should be screened whenever there is a change in the status of their disease, particularly after surgery or after a change in medications.

G&H Are there any strategies or tips that can be used to help gastroenterologists question IBD patients about their mental health?

SK Often, just recognizing the fact that these patients are at risk and bringing up the topic with them is enough. If gastroenterologists feel that they do not have the time or training to address mental health issues, they should refer their patients to someone who can deal with these issues.

G&H Is there any other screening that patients with IBD should undergo?

SK In terms of preventive health, it is important to make sure that patients with IBD receive age-appropriate vaccines, as outlined by the Advisory Committee on Immunization Practices and published yearly in *Annals of Internal Medicine*. In addition, IBD patients should be screened for alcohol and tobacco use.

G&H What is the current understanding of the relationship between smoking and IBD?

SK It is fairly well known that smoking makes Crohn's disease worse but is protective against ulcerative colitis. Thus, a patient who has Crohn's disease who is an active smoker should receive counseling in regard to smoking cessation. Gastroenterologists should keep documentation that they told the patient that he or she needs to quit smoking because surveys have shown that patients claim that their doctors never told them how bad smoking was for their IBD. Whether patients choose to believe that smoking is bad for them or not, gastroenterologists should not just assume that patients know.

In contrast, patients with ulcerative colitis may experience a flare in disease activity when they quit smoking. Gastroenterologists are not going to recommend that patients start smoking again, but understanding the relationship between smoking and ulcerative colitis is important because it may explain what caused the change in disease activity. We do not currently know why smoking is protective against ulcerative colitis.

G&H Why do patients with IBD need to be screened for alcohol abuse?

SK All patients, not just IBD patients, should be screened for alcohol abuse. Although there are no specific IBD-related reasons for this recommendation, alcohol abuse can interact with methotrexate and cause liver damage.

G&H Is there a significant gap between the above screening recommendations and the screening actually received by the average patient with IBD?

SK Yes. The importance of screening patients with IBD has been discussed for probably a decade now but has not necessarily been appreciated until recently, when more data have become available showing the significance and impact of health maintenance on overall patient outcomes. Probably the most compelling example is of vaccination—receiving a vaccination can potentially save one's life.

One of the reasons that the average IBD patient is not adhering to screening recommendations is that he or she is usually not seeing a primary care physician on a regular basis and his or her gastroenterologist has limited time to spend with patients in the clinic. Thus, the gastroenterologist is focusing mainly on the patient's gastrointestinal health and is not prioritizing health maintenance (or perhaps does not even realize that screening falls under his or her care). Accordingly, IBD patients themselves are usually not aware of the importance of screening. Gastroenterologists can recommend that their patients find a primary care physician, but they should make sure that the patients actually do so. If patients do not end up getting a primary care physician, it is especially important that gastroenterologists themselves assess the patients for any conditions for which they are at risk.

G&H Are there any resources or strategies that gastroenterologists can use to improve or increase screening?

SK There are helpful checklists available online from Cornerstones Health and the Crohn's & Colitis Foundation that can be downloaded onto a tablet, printed out, or scanned into a patient's chart. In addition, the EPIC Smart Form, which is a clinical workflow tool that is based on electronic medical records, includes a preventive health checklist. Having this information as part of the patient's medical record can make it easier for the

gastroenterologist to remember to ask about screening, or else have the patient fill out the checklist and keep it as part of the patient's medical record.

G&H What is the next step in research in this area?

SK The next step is to devise processes and protocols that can be documented to improve compliance by both providers (in making these screening recommendations) and patients (in following the recommendations). In addition, it should be proved that, compared to a historical cohort who did not receive these services, patients who underwent screening experienced improvements in terms of their health (eg, prevention of complications, decreased corticosteroid use, and living longer).

Dr Kane has no relevant conflicts of interest to disclose.

Suggested Reading

Farraye FA, Melmed GY, Lichtenstein GR, Kane SV. ACG clinical guideline: preventive care in inflammatory bowel disease. *Am J Gastroenterol*. 2017;112(2):241-258.

Keefer L, Kane SV. Considering the bidirectional pathways between depression and IBD: recommendations for comprehensive IBD care. *Gastroenterol Hepatol (NY)*. 2017;13(3):164-169.

Moscandrew M, Mahadevan U, Kane S. General health maintenance in IBD. *Inflamm Bowel Dis*. 2009;15(9):1399-1409.

Sinclair JA, Wasan SK, Farraye FA. Health maintenance in the inflammatory bowel disease patient. *Gastroenterol Clin North Am*. 2012;41(2):325-337.