GI & Hepatology News

American Gastroenterological Association's official newspaper
July 2026 | news.gastro.org

Credit: Adobe Stock

Experts offer roadmap for IBS-like symptoms in IBD remission

"This consensus study is important because it addresses a common but historically under-recognized problem in IBD care: many patients continue to experience abdominal pain, bloating, diarrhea, constipation or mixed bowel habits despite having little or no objective evidence of active inflammation."

Read More • Page 21

Clinical practice update: Prioritizing fidaxomicin for *C. difficile* in IBD

Update urges early testing, continued immunosuppression, and microbiome-based therapies to reduce recurrent infection in patients with inflammatory bowel disease.

By Doug Brunk

According to a new AGA clinical practice update, patients with inflammatory bowel disease (IBD) who develop *Clostridioides difficile* infection (CDI) should receive fidaxomicin as the preferred first-line treatment, continue any necessary immunosuppressive therapy, and be considered for microbiome-based therapies if the infection recurs.

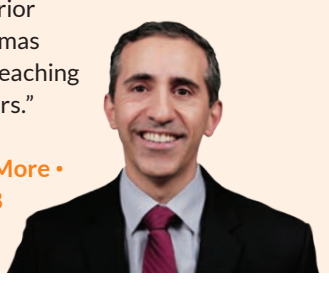
The expert review, published in *Gastroenterology*, provides 12 best practice recommendations for managing CDI in people with IBD, who face a higher risk of infection, more severe illness, and more frequent recurrences than those without IBD. The authors noted that CDI symptoms often resemble an IBD flare, making diagnosis and treatment more challenging.

"This is a very timely update as the management of CDI in patients with IBD continues to be both common and complex," one of the review's authors, Sahil Khanna, MBBS, MS, a consultant in the division of gastroenterology and hepatology in the department of internal medicine at Mayo Clinic, Rochester, Minnesota, told *GI & Hepatology News*. "Patients with IBD are at a higher risk for CDI despite lack of exposures to antibiotics, and have higher rates of hospitalization, recurrences, escalation or failure of IBD therapy, and surgery. Clinically, CDI and an IBD flare can look very similar, yet the treatments differ."

Continues • Page 22

Risk of colorectal cancer and mortality in older adults by adenoma history

"These findings raise major questions about the clinical relevance of surveillance colonoscopy in older adults with prior adenomas after reaching 75 years."

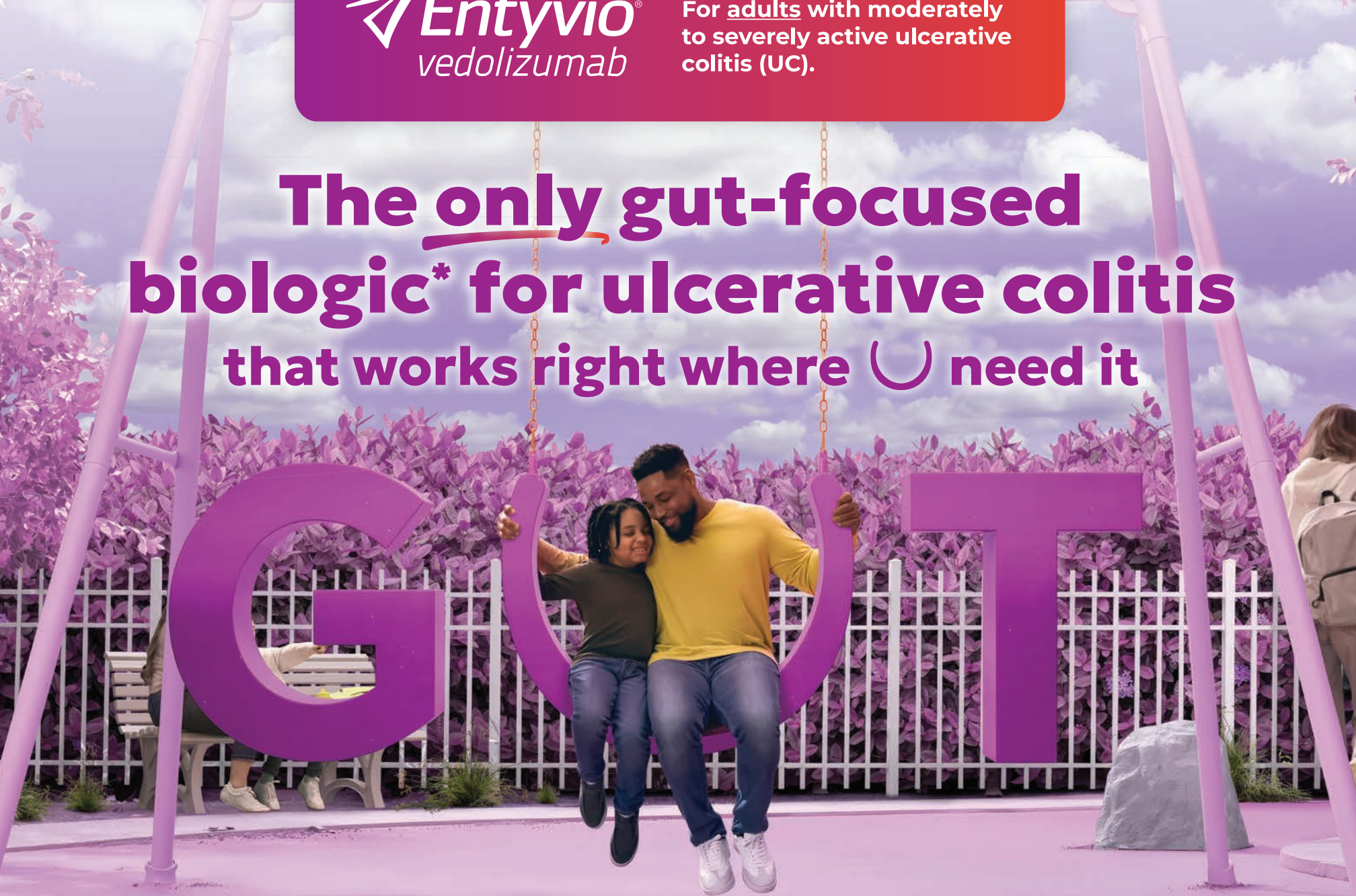


Read More • Page 8

Entyvio® vedolizumab

For adults with moderately to severely active ulcerative colitis (UC).

The only gut-focused biologic* for ulcerative colitis that works right where U need it



*ENTYVIO specifically binds to the ꟻ4ħ7 integrin and blocks its interaction with MAdCAM-1, which is mainly expressed on gut endothelial cells.[1]

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

ENTYVIO is contraindicated in patients who have had a known serious or severe hypersensitivity reaction to ENTYVIO or any of its excipients.

WARNINGS AND PRECAUTIONS

- **Infusion-Related and Hypersensitivity Reactions:** Infusion-related reactions and hypersensitivity reactions, including anaphylaxis, dyspnea, bronchospasm, urticaria, flushing, rash, and increased blood pressure and heart rate, have been reported. These reactions may occur with the first or subsequent infusions and may vary in their time of onset from during infusion or up to several hours post-infusion. If anaphylaxis or other serious infusion-related or hypersensitivity reactions occur, discontinue administration of ENTYVIO immediately and initiate appropriate treatment.
- **Infections:** ENTYVIO increases the risk for developing infections. Serious infections in clinical trials included anal abscess, sepsis (some fatal), tuberculosis (TB), salmonella sepsis, Listeria meningitis, giardiasis, and cytomegaloviral colitis. Postmarketing reports include systemic bacterial, fungal, viral, and parasitic opportunistic infections.
  Do not start ENTYVIO in patients with a clinically important active infection until resolved or adequately treated. In patients with chronic infection or history of recurrent infection, consider risks and benefits prior to ENTYVIO. Instruct patients to seek medical advice if signs or symptoms of acute or chronic infection occur. If a serious infection develops or does not respond to therapy, monitor closely and do not administer ENTYVIO until resolved.

  Tuberculosis: Consider evaluating for TB prior to ENTYVIO. Do not administer ENTYVIO to patients with active TB. Before starting ENTYVIO, treat latent TB and consider anti-TB therapy in patients with a history of TB if adequate course of treatment cannot be confirmed. Monitor for active TB during and after ENTYVIO.
- **Progressive Multifocal Leukoencephalopathy (PML):** PML, a rare and often fatal opportunistic infection of the central nervous system (CNS), has been reported with systemic immunosuppressants, including another integrin receptor antagonist. PML typically only occurs in patients who are immunocompromised. One case of PML in an ENTYVIO-treated patient with multiple contributory factors has been reported. Although unlikely, a risk of PML cannot be ruled out. Monitor patients for any new or worsening neurological signs or symptoms that may include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes. If PML is suspected, withhold dosing with ENTYVIO and refer to neurologist; if confirmed, discontinue ENTYVIO dosing permanently.
- **Liver Injury:** There have been reports of elevations of transaminase and/or bilirubin in patients receiving ENTYVIO. ENTYVIO should be discontinued in patients with jaundice or other evidence of significant liver injury.
- **Immunizations:** Prior to initiating treatment with ENTYVIO, all patients should be brought up to date with all immunizations according to current immunization guidelines. Patients receiving ENTYVIO may receive non-live vaccines and may receive live vaccines if the benefits outweigh the risks.

Results Need

GEMINI I TRIAL

Lasting relief and CS-free remission
at Week 52[1†]

Rapid symptom relief as early as Week 6[1†]

Rapid and long-term visible mucosal improvement
as early as Week 6 and Week 52[1‡]

VARSITY TRIAL

Superior to Humira® (adalimumab) in clinical remission
at Week 52 in the overall population in the VARSITY Trial[2§‖]

VARSITY primary end point (overall population): ENTYVIO IV 31% (n=383) vs 23% (n=386) with Humira® (*P*=0.006; 95% CI: 3%, 15%)[1]

Individual results may vary.

†Many patients taking ENTYVIO IV achieved remission at Week 52 vs placebo, some without steroids. Some achieved remission at Week 6. Clinical remission was defined as UC complete Mayo Score of ≤2 points and no individual subscore of >1 point. CS-free remission is the proportion of patients receiving corticosteroids at baseline and who discontinued steroids and achieved clinical remission.

‡Visible mucosal improvement=Mayo endoscopy subscore of 0 (normal or inactive disease) or 1 (erythema, decreased vascular pattern, mild friability).

§Clinical remission was defined as a complete Mayo Score of ≤2 points and no subscore >1 point.

‖Humira® is a registered trademark of AbbVie Inc., North Chicago, IL. For information related to Humira®, please see AbbVie.com.

CS=corticosteroid; MAdCAM-1=mucosal addressin cell adhesion molecule-1.

ADVERSE REACTIONS

The most common adverse reactions (incidence ≥3% and ≥1% higher than placebo) were: nasopharyngitis, headache, arthralgia, nausea, pyrexia, upper respiratory tract infection, fatigue, cough, bronchitis, influenza, back pain, rash, pruritus, sinusitis, oropharyngeal pain, pain in extremities, and injection site reactions with subcutaneous administration.

DRUG INTERACTIONS

Because of the potential for increased risk of PML and other infections, avoid the concomitant use of ENTYVIO with natalizumab products and with TNF blockers. Upon initiation or discontinuation of ENTYVIO in patients treated with CYP450 substrates, monitor drug concentrations or other therapeutic parameters, and adjust the dosage of the CYP substrate as needed.

INDICATIONS

ENTYVIO is indicated in adults for the treatment of:

- moderately to severely active ulcerative colitis (UC)
- moderately to severely active Crohn's disease (CD)

DOSAGE FORMS & STRENGTHS

- ENTYVIO Intravenous Infusion: 300 mg vedolizumab; Subcutaneous Injection: 108 mg vedolizumab

Please see accompanying Brief Summary of Full Prescribing Information on adjacent pages.

References: 1. ENTYVIO (vedolizumab) prescribing information. Takeda Pharmaceuticals. **2.** Sands BE, Peyrin-Biroulet L, Loftus EV Jr, et al. Vedolizumab versus adalimumab for moderate-to-severe ulcerative colitis. *N Engl J Med*. 2019;381(13):1215-1226.

Explore the pivotal GEMINI I trial and VARSITY trial data and analyses on ENTYVIOHCP.com

If you are a Colorado prescriber, please see the Colorado WAC disclosure form at Takeda.info/ENTYVIOCOPricing.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

Consult the Full Prescribing Information for complete product information.

ENTYVIO (vedolizumab) for injection, for intravenous use
ENTYVIO (vedolizumab) injection, for subcutaneous use
ENTYVIO PEN (vedolizumab) injection, for subcutaneous use

INDICATIONS AND USAGE

ENTYVIO is indicated in adults for the treatment of:

- moderately to severely active ulcerative colitis (UC).
- moderately to severely active Crohn's disease (CD).

CONTRAINDICATIONS

ENTYVIO is contraindicated in patients who have had a known serious or severe hypersensitivity reaction to ENTYVIO or any of its excipients (such as dyspnea, bronchospasm, urticaria, flushing, rash and increased heart rate) *[see Warnings and Precautions]*.

WARNINGS AND PRECAUTIONS

Infusion-Related Reactions and Hypersensitivity Reactions

Infusion-related reactions and hypersensitivity reactions have been reported, including anaphylaxis, dyspnea, bronchospasm, urticaria, flushing, rash, and increased blood pressure and heart rate *[see Adverse Reactions]*. These reactions may occur with the first or subsequent infusions of ENTYVIO and may vary in their time of onset from during infusion or up to several hours post-infusion.

If anaphylaxis or other serious infusion-related or hypersensitivity reactions occur, discontinue administration of ENTYVIO immediately and initiate appropriate treatment.

Infections

Patients treated with ENTYVIO are at increased risk for developing infections *[see Adverse Reactions]*. Serious infections reported in clinical trials include anal abscess, sepsis (some fatal), tuberculosis (TB), salmonella sepsis, Listeria meningitis, giardiasis, and cytomegaloviral colitis. Postmarketing cases of systemic bacterial, fungal, viral, and parasitic opportunistic infections have been reported.

Treatment with ENTYVIO should not be initiated in patients with a clinically important active infection until the infection resolves or is adequately treated. In patients with a chronic infection or a history of recurrent infection, consider the risks and benefits prior to prescribing ENTYVIO. During treatment with ENTYVIO, instruct patients to seek medical advice if signs or symptoms of clinically important acute or chronic infection occur. If a serious infection develops or an infection is not responding to standard therapy, monitor the patient closely. ENTYVIO should not be administered until the infection resolves.

Tuberculosis

Consider evaluating patients for TB infection prior to initiating treatment with ENTYVIO. Treatment with Entyvio should not be administered to patients with active TB infection. Initiate treatment of latent TB prior to administering ENTYVIO. Consider anti-TB therapy prior to initiation of ENTYVIO in patients with a past history of latent or active TB in whom an adequate course of treatment cannot be confirmed. Monitor patients for signs and symptoms of active TB during and after ENTYVIO treatment.

Progressive Multifocal Leukoencephalopathy

PML, a rare and often fatal opportunistic infection of the central nervous system (CNS), has been reported with systemic immunosuppressants, including another integrin receptor antagonist. PML is caused by the John Cunningham (JC) virus and typically only occurs in patients who are immunocompromised. One case of PML in an ENTYVIO-treated patient with multiple contributory factors has been reported in the postmarketing setting (e.g., human immunodeficiency virus [HIV] infection with a CD4 count of 300 cells/mm^3 and prior and concomitant immunosuppression). Although unlikely, a risk of PML cannot be ruled out.

Monitor patients on ENTYVIO for any new onset, or worsening, of neurological signs and symptoms. Typical signs and symptoms associated with PML are diverse, progress over days to weeks, and include progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes. The progression of deficits usually leads to death or severe disability over weeks or months. If PML is suspected, withhold dosing with ENTYVIO and refer to a neurologist; if confirmed, discontinue dosing permanently.

Liver Injury

There have been reports of elevations of transaminase and/or bilirubin in patients receiving ENTYVIO. In general, the combination of transaminase elevations and elevated bilirubin without evidence of obstruction is generally recognized as an important predictor of severe liver injury that may lead to death or the need for a liver transplant in some patients. ENTYVIO should be discontinued in patients with jaundice or other evidence of significant liver injury *[see Adverse Reactions]*.

Immunizations

Prior to initiating treatment with ENTYVIO, all patients should be brought up to date with all immunizations according to current immunization guidelines. Patients receiving ENTYVIO may receive non-live vaccines (e.g., influenza vaccine injection) and may receive live vaccines if the benefits outweigh the risks. There are no data on the secondary transmission of infection by live vaccines in patients receiving ENTYVIO *[see Adverse Reactions]*.

ADVERSE REACTIONS

The following topics are also discussed in detail in the Warnings and Precautions section:

- Infusion-Related Reactions and Hypersensitivity Reactions *[see Warnings and Precautions]*
- Infections *[see Warnings and Precautions]*
- Progressive Multifocal Leukoencephalopathy *[see Warnings and Precautions]*
- Liver Injury *[see Warnings and Precautions]*

Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The data described below reflect exposure to intravenous ENTYVIO in 3,326 patients and healthy volunteers in clinical trials, including 1,396 exposed for greater than one year, and 835 exposed for greater than two years.

Intravenous Infusion

The safety data described in *Table 1* are derived from four controlled Phase 3 trials (UC Trials I and II, and CD Trials I and III); data from adult patients receiving open-label intravenous ENTYVIO treatment at Weeks 0 and 2 (prior to entry into UC Trial II and CD Trial III) and from Weeks 6 to 52 (non-responders at Week 6 of UC Trial I and CD Trial I) are included.

In these trials, 1,434 patients received ENTYVIO 300 mg intravenously for up to 52 weeks, and 297 patients received placebo for up to 52 weeks. Of these, 769 patients had ulcerative colitis and 962 patients had Crohn's disease. Patients were exposed for a mean duration of 259 days (UC Trials I and II) and 247 days (CD Trials I and III).

Adverse reactions were reported in 52% of patients treated with intravenous ENTYVIO and 45% of patients treated with placebo (UC Trials I and II: 49% with ENTYVIO and 37% with placebo; CD Trials I and III: 55% with ENTYVIO and 47% with placebo). Serious adverse reactions were reported in 7% of patients treated with intravenous ENTYVIO compared to 4% of patients treated with placebo (UC Trials I and II: 8% with ENTYVIO and 7% with placebo; CD Trials I and III: 12% with ENTYVIO and 9% with placebo).

The most common adverse reactions (reported by ≥3% of patients treated with intravenous ENTYVIO in the UC Trials I and II and CD Trials I and III combined group and ≥1% higher than in combined placebo group) were nasopharyngitis, headache, arthralgia, nausea, pyrexia, upper respiratory tract infection, fatigue, cough, bronchitis, influenza, back pain, rash, pruritus, sinusitis, oropharyngeal pain and pain in extremities *(Table 1)*.

Table 1. Adverse Reactions in ≥3% of Intravenous ENTYVIO-Treated Adult Patients and ≥1% Higher than in Placebo (UC Trials I and II* and CD Trials I and III*)

Adverse Reaction	ENTYVIO IV† (N=1434)	Placebo‡ (N=297)
Nasopharyngitis	13%	7%
Headache	12%	11%
Arthralgia	12%	10%
Nausea	9%	8%
Pyrexia	9%	7%
Upper respiratory tract infection	7%	6%
Fatigue	6%	3%
Cough	5%	3%
Bronchitis	4%	3%
Influenza	4%	2%
Back pain	4%	3%
Rash	3%	2%
Pruritus	3%	1%
Sinusitis	3%	1%
Oropharyngeal pain	3%	1%
Pain in extremities	3%	1%

* Data from patients receiving open-label intravenous ENTYVIO treatment at Weeks 0 and 2 (prior to entry into UC Trial II and CD Trial III) and from Weeks 6 to 52 (non-responders at Week 6 of UC Trial I and CD Trial I) are included.
† Patients who received ENTYVIO for up to 52 weeks.
‡ Patients who received placebo for up to 52 weeks.

Safety data for patients (n=279) in UC Trials I and II and CD Trials I and III who received intravenous ENTYVIO at Weeks 0 and 2 and were then randomized to placebo at Week 6 for up to 52 weeks, and for patients (n=416) in CD Trial II, a 10-week Crohn's disease trial, are similar to those listed in *Table 1*.

Infusion-Related Reactions and Hypersensitivity Reactions

Serious infusion-related reactions and hypersensitivity reactions including anaphylaxis have been reported following intravenous ENTYVIO administration in clinical trials *[see Warnings and Precautions]*. In UC Trials I and II and CD Trials I and III, one case of anaphylaxis [one out of 1,434 patients treated with intravenous ENTYVIO (0.07%)] was reported by a Crohn's disease patient during the second infusion (symptoms reported were dyspnea, bronchospasm, urticaria, flushing, rash, and increased blood pressure and heart rate) and was managed with discontinuation of infusion and treatment with antihistamine and intravenous hydrocortisone.

In UC Trials I and II and CD Trials I and III, 4% of patients treated with intravenous ENTYVIO and 3% of patients treated with placebo experienced an infusion-related reaction (IRR). The most frequently observed IRRs in the patients treated with intravenous ENTYVIO (reported more than twice) were nausea, headache, pruritus, dizziness, fatigue, infusion-related reaction, pyrexia, urticaria, and vomiting (each of these adverse reactions occurred in <1% in all patients treated with intravenous ENTYVIO) and no individual adverse reaction reported occurred at a rate above 1%. These reactions generally occurred within the first two hours after the infusion and resolved with no treatment or following antihistamine and/or IV hydrocortisone treatment. Less than 1% of patients treated with intravenous ENTYVIO had IRRs assessed by the investigator as severe, and IRRs requiring discontinuation of study treatment occurred in <1%.

In clinical trials, for patients with mild IRRs or hypersensitivity reactions, physicians were allowed to pretreat with standard medical treatment (e.g., antihistamine, hydrocortisone, and/or acetaminophen) prior to next infusion.

Infections

In UC Trials I and II and CD Trials I and III, the rate of infections was 0.85 per patient-year in the patients treated with intravenous ENTYVIO and 0.7 per patient-year in the patients treated with placebo *[see Warnings and Precautions]*. The infections consisted primarily of nasopharyngitis, upper respiratory tract infection, sinusitis, and urinary tract infection. Two percent of patients discontinued intravenous ENTYVIO due to infections.

In UC Trials I and II and CD Trials I and III, the rate of serious infections was 0.07 per patient-year in patients treated with intravenous ENTYVIO and 0.06 per patient-year in patients treated with

placebo. Serious infections were more common in Crohn's disease patients than ulcerative colitis patients, and anal abscesses were the most frequently reported serious adverse reaction in Crohn's disease patients. Over 48 months, there was no increase in the rate of serious infections.

In controlled- and open-label long-term extension trials in adults treated with intravenous ENTYVIO, serious infections have been reported, including anal abscess, sepsis (some fatal), tuberculosis, salmonella sepsis, Listeria meningitis, giardiasis, and cytomegaloviral colitis.

In UC Trials I and II and CD Trials I and III, sepsis, including bacterial sepsis and septic shock, was reported in four of 1,434 (0.3%) patients treated with intravenous ENTYVIO and in two of 297 patients treated with placebo (0.7%). During these trials, two Crohn's disease patients treated with intravenous ENTYVIO died due to reported sepsis or septic shock; both patients had significant comorbidities and a complicated hospital course that contributed to the deaths. In an open label, long-term extension trial, additional cases of sepsis (some fatal), including bacterial sepsis and septic shock, were reported. The rate of sepsis in patients with ulcerative colitis or Crohn's disease receiving intravenous ENTYVIO was two per 1,000 patient-years.

In clinical trials, all patients were screened for tuberculosis. One case of latent, pulmonary tuberculosis was diagnosed during the controlled trials with intravenous ENTYVIO. Additional cases of pulmonary tuberculosis were diagnosed during the open-label trial. All of these observed cases occurred outside the United States (U.S.), and none of the patients had extrapulmonary manifestations.

Liver Injury

There have been reports of elevations of transaminase and/or bilirubin in patients receiving intravenous ENTYVIO *[see Warnings and Precautions]*. In UC Trials I and II and CD Trials I and III, three patients reported serious adverse reactions of hepatitis, manifested as elevated transaminases with or without elevated bilirubin and symptoms consistent with hepatitis (e.g., malaise, nausea, vomiting, abdominal pain, anorexia). These adverse reactions occurred following two to five intravenous ENTYVIO doses; however, based on case report information it is unclear if the reactions indicated drug-induced or autoimmune etiology. All patients recovered following discontinuation of therapy with some requiring corticosteroid treatment. In controlled trials, the incidence of ALT and AST elevations ≥3x ULN was <2% in patients treated with intravenous ENTYVIO and in patients treated with placebo. In the open-label trial, one additional case of serious hepatitis was observed.

Malignancies

In UC Trials I and II and CD Trials I and III, malignancies (excluding dysplasia and basal cell carcinoma) were reported in six of 1,434 (0.4%) patients treated with intravenous ENTYVIO, including colon cancer (n=2), transitional cell carcinoma (n=1), breast cancer (n=1), carcinoid tumor of the appendix (n=1) and squamous cell carcinoma (n=1). Malignancy was reported in one of 297 (0.3%) patients treated with placebo (squamous cell carcinoma).

Malignancies (excluding dysplasia and basal cell carcinoma) observed during the ongoing open-label long-term extension trial included B-cell lymphoma, breast cancer, colon cancer, malignant hepatic neoplasm, malignant lung neoplasm, malignant melanoma, lung cancer of primary neuroendocrine carcinoma, renal cancer and squamous cell carcinoma. Overall, the number of malignancies in the clinical trials was small; however, long-term exposure was limited.

Subcutaneous Injection after Two Intravenous Doses of ENTYVIO

ENTYVIO was administered as a subcutaneous injection in adult patients with ulcerative colitis and Crohn's disease in double-blind, placebo-controlled clinical trials (SC UC Trial and SC CD Trial, respectively). Patients who achieved clinical response following two doses of ENTYVIO administered as an intravenous infusion at Week 0 and Week 2 were randomized 2:1 at Week 6 to ENTYVIO as a subcutaneous injection (N=106) or placebo (N=56) (SC UC Trial) and as subcutaneous injection (N=275) or placebo (N=134) (SC CD Trial).

The safety profile for up 52 weeks of total treatment was similar between patients who were switched to ENTYVIO as a subcutaneous injection in SC UC and SC CD clinical trials and patients in UC and CD clinical trials who received ENTYVIO as an intravenous infusion *(Table 1)* except for injection site reactions, which were reported with subcutaneous ENTYVIO. Injection site reactions with subcutaneous ENTYVIO were reported in 10% (11/106) of patients in SC UC Trial, including injection site erythema, rash, pruritus, swelling, bruising, and hematoma. Injection site reactions with subcutaneous ENTYVIO were reported in 3% (8/275) of patients in SC CD Trial, including injection site erythema, pruritus, urticaria, pain, rash, and edema.

Live and Oral Vaccines

There are no data on the secondary transmission of infection by live vaccines in patients receiving ENTYVIO.

In a placebo-controlled study of healthy volunteers, 61 subjects were given a single intravenous ENTYVIO 750 mg dose (2.5 times the recommended dose), and 62 subjects received placebo followed by intramuscular vaccination with Hepatitis B surface antigen and oral cholera vaccine. After intramuscular vaccination with three doses of recombinant Hepatitis B surface antigen, those treated with intravenous ENTYVIO did not have lower rates of protective immunity to Hepatitis B virus. However, those exposed to intravenous ENTYVIO did have lower seroconversion rates and anti-cholera titers relative to placebo after receiving the two doses of a killed, oral cholera vaccine. The impact on other oral vaccines and on nasal vaccines in patients is unknown.

Postmarketing Experience

The following adverse reactions have been identified during post-approval use of ENTYVIO. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Immune system disorders: Anaphylaxis *[see Warnings and Precautions]*

Gastrointestinal system disorders: Acute Pancreatitis

Respiratory, thoracic, and mediastinal disorders: Interstitial lung disease, pneumonitis.

DRUG INTERACTIONS

Natalizumab Products

Because of the potential for increased risk of PML and other infections, avoid the concomitant use of ENTYVIO with natalizumab products.

TNF Blockers

Because of the potential for increased risk of infections, avoid the concomitant use of ENTYVIO with TNF blockers.

CYP450 Substrates

The formation of CYP450 enzymes may be suppressed by increased levels of certain cytokines (e.g., IL-6, IL-10, TNFα, IFN) during chronic inflammation. Therefore, use of ENTYVIO may normalize the formation of CYP450 enzymes by modulating the underlying disease. Upon initiation or discontinuation of ENTYVIO in patients treated with CYP450 substrates, monitor drug concentrations or other therapeutic parameters, and adjust the dosage of the CYP substrate as needed. See the prescribing information of specific CYP substrates.

USE IN SPECIFIC POPULATIONS

Pregnancy

Risk Summary

Available data from the Organization of Teratology Information Specialists (OTIS)/MotherToBaby ENTYVIO Pregnancy Registry, published literature and pharmacovigilance in pregnant women have not reliably identified an ENTYVIO-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes *(see Data)*. There are risks to the mother and the fetus associated with inflammatory bowel disease in pregnancy *(see Clinical Considerations)*.

No fetal harm was observed in animal reproduction studies with intravenous administration of vedolizumab to rabbits and monkeys at dose levels 20 times the recommended human dosage *(see Data)*.

The background risk of major birth defects and miscarriage for the indicated populations is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and miscarriage is 15 to 20%, respectively.

Clinical Considerations

Disease-Associated Maternal and Embryo/Fetal Risk

Published data suggest that the risk of adverse pregnancy outcomes in women with inflammatory bowel disease (IBD) is associated with increased disease activity. Adverse pregnancy outcomes include preterm delivery (before 37 weeks of gestation), low birth weight (less than 2,500 g) infants, and small for gestational age at birth.

Fetal/Neonatal Adverse Reactions

ENTYVIO administered during pregnancy could affect immune responses in the in utero-exposed newborn and infant. The clinical significance of low levels of ENTYVIO in utero-exposed infants is unknown. The safety of administering live or live-attenuated vaccines in exposed infants is unknown.

Data

Human Data

The vedolizumab pregnancy exposure registry conducted by OTIS/MotherToBaby study in the United States and Canada collected prospective observational data between 2015 and 2022 to assess the risk of major birth defects in live-born infants of women with ulcerative colitis (UC) or Crohn's disease (CD) treated with vedolizumab during pregnancy. The study compared pregnant patients with UC or CD exposed to vedolizumab with pregnant patients with UC or CD treated with other biological products. The registry included 99 women (58 with UC, 41 with CD) treated with vedolizumab during pregnancy, and 76 women (27 with UC, 49 with CD) exposed to other biological products during pregnancy.

The proportion of major birth defects among live-born infants in patients with UC or CD treated with vedolizumab and patients with UC or CD treated with other biological products was 7.4% (7/94) and 5.6% (4/71), respectively. Overall, there was no evidence of increased risk for major structural birth defects (adjusted RR 1.07, 95% CI: 0.33, 3.52).

The methodological limitations of the registry, including small sample size and the non-randomized design, resulted in a limited ability to estimate the risk of major birth defects and other maternal and infant outcomes. The conclusions from the pregnancy registry were consistent with the published literature and pharmacovigilance.

Animal Data

A reproduction study has been performed in pregnant rabbits at single intravenous doses up to 100 mg/kg administered on gestation Day 7 (about 20 times the recommended human dosage) and has revealed no evidence of impaired fertility or harm to the fetus due to vedolizumab. A pre- and post-natal development study in monkeys showed no evidence of any adverse effect on pre- and post-natal development at intravenous doses up to 100 mg/kg (about 20 times the recommended human dosage).

Lactation

Risk Summary

Data from a clinical lactation study show the presence of vedolizumab in human milk. The mean calculated daily infant dosage was 0.02 mg/kg/day orally *(see Data)*. Systemic exposure in a breastfed infant is expected to be low because monoclonal antibodies are largely degraded in the gastrointestinal tract. There are no data on the effects of vedolizumab on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for ENTYVIO and any potential adverse effects on the breastfed infant from ENTYVIO or from the underlying maternal condition.

Data

A milk-only lactation study was conducted in 9 adult lactating women being treated for active ulcerative colitis or Crohn's disease with intravenous ENTYVIO every 8 weeks after reaching steady state and completing the induction phase (ENTYVIO administration at 0, 2, and 6 weeks). Mean concentrations of ENTYVIO in human milk ranged from 0.03 to 0.26 mcg/mL. The mean calculated daily infant oral dosage was 0.02 mg/kg/day calculated as a product of the average concentration over the 8-week dosing interval and the standardized milk consumption of 150 mL/kg/day.

Pediatric Use

Safety and effectiveness of ENTYVIO in pediatric patients have not been established.

Geriatric Use

Clinical trials of ENTYVIO did not include sufficient numbers of patients aged 65 and over (72 patients with Crohn's or ulcerative colitis patients aged 65 and over were treated with ENTYVIO during controlled Phase 3 trials) to determine whether they respond differently from younger adult patients. However, no overall differences in safety or effectiveness were observed between these patients and younger adult patients, and other reported clinical experience has not identified differences in responses between the elderly and younger patients.

Manufactured by:
Takeda Pharmaceuticals U.S.A., Inc.
Cambridge, MA 02142

U.S. License No. 1898

Revised: February 2026

For more information, go to www.ENTYVIO.com or call 1-877-TAKEDA7 (1-877-825-3327).

US-VED-4326 03/26

Building sustainable GI careers

As demand rises and teams stretch thin, sustainable careers depend on practice environments designed for clinicians and patients alike.

Last month, we highlighted the critical role GI fellows play in refining our health care delivery systems through attention to the practical aspects of care delivery. This month, we tackle a related question: How do we build health systems to support sustainable GI careers?

I was recently invited to speak with residents and fellows at my institution about negotiation — specifically, what to ask, clarify, and get in writing before accepting a job after training. Much of the discussion focused less on salary itself than on the details that shape our day-to-day professional lives: clinical expectations, call responsibilities, clinic templates, procedure volume, inpatient duties, administrative time, mentorship, staffing support, productivity metrics, inbox coverage, and opportunities for growth. These are the kinds of details that many of us only fully appreciate after starting a job. Yet they often determine whether a position is sustainable, whether a newly minted gastroenterologist can develop confidence and independence, and whether the work remains satisfying over time. Negotiation, in this sense, is about more than individual advantage. It is about aligning expectations, preventing avoidable frustration, and creating the conditions for good patient care.

This matters because gastroenterology is facing real workforce pressures: rising demand for services, longer wait times, growing complexity of care, staffing constraints, prior authorization, documentation burden, and productivity expectations. These challenges affect more than clinician satisfaction. When care teams are spread too thin, access suffers, delays in care increase, communication breaks down, and clinician burnout becomes an access, quality, and retention issue. As a field, we should treat workforce sustainability as part of our quality agenda. That means building practice environments with clear expectations, appropriate support, team-based workflows, and realistic approaches to workload. These are not just contractual or operational details; they are the practical conditions that allow us to do our best work.

Our July issue features new clinical advice relating to patients with inflammatory bowel disease (IBD): an AGA clinical practice update on management of *C. difficile* in patients with IBD, and a Rome Foundation/International Organization for the Study of Inflammatory Bowel Diseases (IOIBD) consensus statement on managing IBD patients in remission who continue to experience irritable bowel syndrome–like symptoms. In this month's Member Spotlight, we check in with former AGA president and 2026 Julius Friedenwald Medal recipient Hashem El-Serag, MD, MPH, who outlines his current work in precision prevention and highlights the importance of a learning health system. We hope you enjoy these and all the articles in this month's issue and wish you a restful summer.

Megan A. Adams, MD, JD, MSc
Editor in Chief

Call for nominations

Know an inspiring AGA member? Nominate them to be featured in a Member Spotlight.

Do you know an AGA member with a unique, inspiring, or particularly interesting career path? Nominate them for our Member Spotlight! We would love to share their story with the AGA community. Our members are doing remarkable work in clinical care, research, education, advocacy, and innovation, and highlighting these journeys helps celebrate the diverse experiences that shape the field of gastroenterology.

To submit a nomination or suggestion, please email the member's name and a brief note about why they would be a great feature to ginews@gastro.org. We look forward to hearing about the inspiring members in your network!

GI&Hep News

Editor in Chief, GI & Hepatology News
Megan A. Adams, MD, JD, MSc
Editor in Chief, The New Gastroenterologist
Judy Trieu, MD, MPH
Associate Editors Ziad F. Gellad, MD, MPH, AGAF, Janice H. Jou, MD, MHS, David Katzka, MD, Gyanprakash A. Ketwaroo, MD, MSc, Bharati Kochar, MD, MS, Kimberly M. Persley, MD, AGAF, Marc S. Piper, MD
Editors Emeritus, GI & Hepatology News John I. Allen, MD, MBA, AGAF, Colin W. Howden, MD, AGAF, Charles J. Lightdale, MD, AGAF
Editors Emeritus, The New Gastroenterologist Vijaya L. Rao, MD, Bryson Katona, MD, PhD

AGA Institute Staff
Managing Editor, GI & Hepatology News and The New Gastroenterologist Danielle Kiefer
Vice President of Communications Jessica Duncan
Officers of the AGA Institute
President, Byron L. Cryer, MD, AGAF
President-Elect, Richard M. Peek, MD, AGAF
Vice President, Andrew Chan, MD, MPH, AGAF
Secretary / Treasurer, Michael Kochman, MD, AGAF

AGA Sales Contact
Director of Business Development – Advertising Sales Trevor Deal
Contact Information +1 908-463-3825 trevor.deal@conexiant.com

GI & Hepatology News is the official newspaper of the American Gastroenterological Association (AGA) Institute and provides the gastroenterologist with timely and relevant news and commentary about clinical developments and about the impact of healthcare policy. Content for GI & Hepatology News is developed through a partnership of the newspaper's medical board of editors (Editor in Chief and Associate Editors), Conexiant and the AGA Institute Staff. "News from the AGA" is provided exclusively by the AGA, AGA Institute, and AGA Research Foundation. All content is reviewed by the medical board of editors for accuracy, timeliness, and pertinence. To add clarity and context to important developments in the field, select content is reviewed by and commented on by external experts selected by the board of editors.

POSTMASTER Send changes of address (with old mailing label) to GI & Hepatology News, Subscription Service, 17550 N Perimeter Drive, Suite 110, Scottsdale, AZ 85255-7829. RECIPIENT To change your address, contact Subscription Services at 1-800- 430- 5450. For paid subscriptions, single issue purchases, and missing issue claims, call Customer Service at 1-833-836-2705 or e-mail custsvc.gihep@ fulcoinc.com.

RECIPIENT To change your address, contact Subscription Services at 1-800-430-5450. For paid subscriptions, single issue purchases, and missing issue claims, call Customer Service at 1-833-836-2705 or e-mail custsvc.gihep@fulcoinc.com

The AGA Institute headquarters is located at 4930 Del Ray Avenue, Bethesda, MD 20814, ginews@gastro.org. GI & Hepatology News (ISSN 1934-3450) is published monthly for $230.00 per year by Conexiant, 400 N. Ashley Drive, Suite 2600, Tampa, FL, 33602.

"Without greater emphasis on screening and early detection, even the most effective eradication therapies will have only a limited impact on the overall incidence of esophageal adenocarcinoma."

Arvind Trindade, MD • See Page 18

Narrow-band imaging may lower serrated lesion miss rate

Enhanced imaging during colonoscopy sharply reduced missed sessile serrated lesions and adenomas in a multicenter randomized trial.

By Doug Brunk

Using narrow-band imaging during screening colonoscopy cut the miss rate for sessile serrated lesions by more than half compared with white light imaging in a large multicenter randomized tandem trial. The findings, published in *Clinical Gastroenterology and Hepatology*, suggest the technique could help lower the risk for post-colonoscopy colorectal cancer.

"This study addresses a critical gap in colorectal cancer (CRC) prevention," one of the study's authors, Yu Bai, MD, PhD, Vice Director of the Department of Gastroenterology at Changhai Hospital, Naval Medical University, China, told GI & Hepatology News. "A primary precursor lesion of CRC, sessile serrated lesion (SSL) is extremely difficult to detect due to the flat, subtle morphology. While narrow-band imaging (NBI) is known to improve adenoma detection, whether NBI can reduce sessile serrated lesion (SSL) miss rate is not clear."

To evaluate whether NBI can reduce the sessile (SSL) miss rate compared with white light imaging (WLI), Dr. Bai and colleagues across 15 Chinese endoscopy centers randomly assigned 843 patients undergoing colorectal cancer screening to first-pass colonoscopy with either NBI or WLI, followed immediately by a second examination using the alternate modality.

The main goal was to measure how often SSLs were missed. Researchers also looked at how often proximal serrated polyps and adenomas were missed, adenoma and SSL detection rates, and whether the findings changed surveillance recommendations.

Among 112 SSLs identified during tandem colonoscopy, the miss rate was 18% in the NBI-first group vs 44% in the WLI-first group, a rate "much higher than prior estimates, highlighting how often these precancerous lesions are overlooked in routine practice," Dr. Bai said. Patients examined first with NBI also had lower miss rates for proximal serrated polyps, 19% vs 41%, and adenomas, 20% vs 30%.

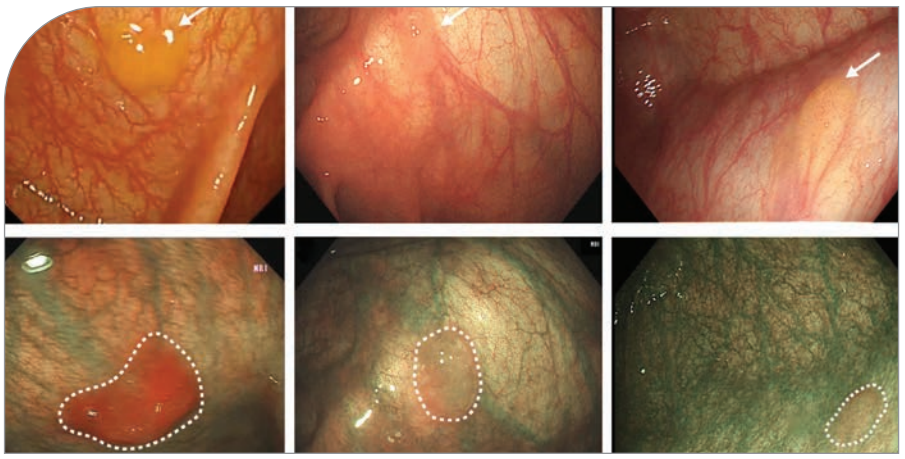
Even though fewer lesions were missed, the detection rates during the first exam were not significantly different between the groups. Adenoma detection rates were 46% with NBI and 42% with WLI, while SSL detection rates were 9% and 6%, respectively.

A multivariable analysis showed that NBI was the only factor independently linked to fewer missed sessile serrated lesions, lowering the odds by about 76%. More experienced endoscopists and better bowel preparation were also linked to lower miss rates in univariate analyses, but those factors were no longer significant after adjustment.

"Combined with our findings for both adenomas and SSLs, our study is the first to demonstrate that NBI can significantly reduce the miss rate for most major precursors of CRC, highlighting its promising value for improving colonoscopy quality," Dr. Bai said. "Although routine NBI use during withdrawal has not been widely recommended in clinical practice, our data support that targeted NBI examination may be considered for high-risk populations (such as those with serrated polyposis syndrome) and high-risk locations (especially the proximal colon) where SSLs are most frequently missed."

The study also examined how additional lesion detection affected surveillance recommendations. Under United Kingdom guidelines, the proportion of patients advised to undergo more intensive surveillance increased from 6% with WLI to 12% with NBI.

No severe adverse events occurred.



Endoscopic comparison of SSL detection by NBI and WLI. (A–C) SSL on WLI. (D–F) SSL on NBI. The same polyp is more clearly visible on NBI. Figure courtesy of *Clinical Gastroenterology and Hepatology.*

Davide Massimi, MD, PhD, a therapeutic endoscopy consultant at IRCCS Humanitas Research Hospital in Milan, Italy, who was invited to comment on the study, said that three nuances warrant consideration before interpreting the findings as support for routine NBI in screening. "First, detection rates did not move significantly," he said. "NBI added lesions to already-positive patients rather than identifying new positive patients, which limits its effect on individual risk stratification."

Second, every missed SSL was smaller than 5 mm and none harbored dysplasia. "The clinically significant serrated polyp miss rate (lesions ≥10 mm or >5 mm proximal to the sigmoid) was unchanged," Dr. Massimi said. "Cutting the miss rate of the lesions that biology suggests are least likely to drive interval cancer is meaningful, but it is not the same as cutting the miss rate of the lesions that matter most."

Third, surveillance recommendations shifted only under United Kingdom guidance, whereas AGA recommendations remained largely unchanged.

Dr. Bai and his coauthors noted several limitations of the analysis, including inability to blind endoscopists to imaging modality and use of the same physician for both tandem examinations, which may have introduced observer bias.

The authors and Dr. Massimi reported no conflicts of interest. The study was funded by multiple Chinese national and regional research programs, including the China National Postdoctoral Program for Innovative Talents and the Shanghai Sailing Program.

Colonoscopy in the AI era associated with higher adenoma detection

A real-world analysis of more than 1.5 million matched patients links AI-assisted colonoscopy to a 47% reduction in interval colorectal cancer.

By Doug Brunk

Artificial intelligence–assisted colonoscopy was associated with higher adenoma detection and nearly half the rate of interval colorectal cancer compared with earlier practice, according to a large US analysis of electronic health records.

Most of the evidence behind AI-assisted colonoscopy comes from randomized trials run at academic centers under fairly controlled conditions," Muhammad Ali Butt, MD, a gastroenterology fellow at the University of Minnesota, Minneapolis,

Muhammad Ali Butt, MD

told GI & Hepatology News ahead of Digestive Disease Week® (DDW) 2026. "What we didn't have is a clear picture of what happens when these tools get used across dozens of health systems in routine practice — "different patient populations, different procedure volumes, different levels of endoscopist experience."

For the retrospective cohort study, Dr. Butt and colleagues drew from the TriNetX network to compare outcomes among patients aged 45 years and older undergoing colonoscopy in two time periods: 2015–2019 and 2022–2025. The earlier period reflected practice before AI was widely used, while the later period represented the era of adoption. Patients with colorectal cancer diagnosed before or within 30 days of colonoscopy were excluded. After using 1:1 propensity score matching to balance demographics, comorbidities, and procedure indications, the researchers included more than 1.5 million patients in each cohort for short-term outcomes and nearly 1.6 million per group for longer-term cancer outcomes.

The matched populations were similar across key characteristics, with a mean age of about 60 years and slightly more than half female in both groups. The large sample and matching method were meant to limit bias and better reflect real-world care across multiple US health systems.

Within 30 days of colonoscopy, adenoma detection was higher in the AI era, identified in 3.6% of patients compared with 1.8% in the earlier cohort, representing nearly twice the detection rate. Advanced adenoma detection also increased, occurring in 0.19% vs 0.13% of patients. All differences were statistically significant (P <0.001 for all comparisons).

Longer-term outcomes showed a reduction in interval colorectal cancer, defined as cancer diagnosed 6–36 months after colonoscopy. During the AI era, interval cancer occurred in 0.11% of patients compared with 0.21% in the earlier period, a 47% relative reduction (P <0.001).

"The interval CRC reduction was more pronounced than I expected; interval colorectal cancer is a hard outcome to move," Dr. Butt said. "These are cancers that slip through after a 'negative' scope. A signal that large in real-world data was not something I was anticipating. That said, this is an observational study covering a period when a lot was changing in GI practice simultaneously, [including] quality improvement initiatives, increased awareness of ADR benchmarks, and changes in surveillance guidelines, so I wouldn't attribute all of that to AI alone. What the data show is a temporal association, and not causation."

Still, he concluded, the scale of the analysis and consistency of the findings across endpoints provide support for the clinical impact of AI–enhanced colonoscopy in routine care. "I think it gives gastroenterologists and hospital administrators something more concrete to point to when weighing adoption decisions," Dr. Butt said. "Whether it changes practice overnight is another question; cost, workflow integration, and training all matter. But for clinicians who were waiting to see whether real-world results would hold up compared to controlled trials, this is at least a data point in that direction."

Dr. Butt reported having no disclosures.

DDW is AGA's annual meeting, jointly sponsored by AGA, AASLD, ASGE, and SSAT. Learn more at ddw.org.

Risk of colorectal cancer and mortality in older adults by adenoma history

Findings "raise major questions" about how clinically relevant surveillance colonoscopy remains in older adults with prior adenomas.

By Julia Cipriano

Adults aged at least 75 years with adenomas detected at prior colonoscopy had higher subsequent risks of colorectal cancer (CRC) and CRC-specific death than those without adenomas, although cumulative risks were low and substantially outweighed by competing risks of non-CRC death, according to a retrospective cohort study published in *JAMA*.

Decisions about continuing CRC surveillance in older adults are increasingly complex, as current guidelines do not provide clear age- or frailty-based recommendations for deimplementation. This gap persists despite procedural risks and uncertain benefit in those with prior adenomas, for whom surveillance is typically performed for early detection and prevention of cancer.

"Knowing when to stop CRC surveillance in elderly patients is challenging in part because of the concern of missing clinically significant pre-cancerous lesions," Ziad F. Gellad, MD, MPH, AGAF, told *GI & Hepatology News*.

The 10-year cumulative incidence of non-CRC death ranged from 46.9% to 48.4% and was thus found to exceed that of CRC (1.1%) and CRC-specific death (0.5%) in patients with prior adenomas, compared with 0.7% and 0.4%, respectively, in those without adenomas.

"Older adults may consider deprioritizing surveillance colonoscopy relative to other health concerns," lead author Samir Gupta, MD, MSCS, of Veterans Affairs San Diego Healthcare System and the University of California, San Diego, and colleagues wrote.

Study details

The researchers focused on 91,952 older adults (median age, 71 years at last colonoscopy; 98% male) who underwent colonoscopy between January 1, 2006, and December 31, 2019, and prior to 75 years of age within the U.S. Department of Veterans Affairs. Of this population, 25,538 (27.8%) had prior adenomas and 66,414 (72.2%) did not.

The study estimated the cumulative incidence of CRC, CRC-specific death, non-CRC death, and all-cause mortality among patients with and without adenomas detected at prior colonoscopy. Comparisons of CRC incidence and associated death between groups were performed using Gray's test; in patients with prior adenomas, these outcomes were further stratified by Veterans Affairs Frailty Index categories (nonfrail [≤ 0.10]; prefrail [0.11 to 0.20]; mild frailty [0.21 to 0.30]; moderate frailty [0.31 to 0.40]; and severe frailty [> 0.40]), reflecting increasing risk of all-cause mortality.

10-year outcomes

After 10 years of follow-up, the cumulative incidence of CRC was higher in patients with prior adenomas than in those without (1.1% vs. 0.7%; Gray's test P < .001).

The cumulative incidence of CRC-specific death was 0.5% in the adenoma

Ziad F. Gellad, MD, MPH, AGAF

group vs. 0.4% in the nonadenoma group (Gray's test P = .005).

Non-CRC death had a cumulative incidence ranging from 46.9% to 48.4%. In patients with prior adenomas, the cumulative incidence of non-CRC death was reported to substantially exceed the incidence of CRC across all frailty strata, ranging from 34.2% in the nonfrail group to 82.0% in the severe frailty group.

"The study is an important addition to the literature because it highlights the low risk of colorectal cancer in this previously screened population, even in those with prior adenomas," Gellad said. "The study also elegantly contextualizes that risk by comparing it to the much higher risk of non-CRC death."

"These findings raise major

questions about the clinical relevance of surveillance colonoscopy in older adults with prior adenomas after reaching 75 years," the authors concluded. "Collectively, our results also highlight the importance of an ongoing clinical trial comparing de-escalation of surveillance with a strategy of annual fecal immunochemical testing vs. usual care surveillance colonoscopy among older adults with prior history of polypectomy."

Limitations noted by the authors include the predominantly male U.S. veteran population, which may limit generalizability, particularly given sex differences in CRC risk and life expectancy. Exploratory analyses showed no significant differences in follow-up colonoscopy frequency between patients with prior adenomas who did vs. did not develop incident CRC and could not disentangle risk reduction attributable to surveillance vs. diagnostic colonoscopy. The authors also wrote that more granular analyses using manually abstracted colonoscopy data are planned for future work.

Gellad shared additional commentary about the study's scope. "There remain some important limitations to this study including that the analysis was limited to males and thus may not be representative of the general population," he said. "It also excluded those with sessile serrated adenomas which are clinically relevant pre-cancerous lesion that may have a different impact on cancer risk than adenoma."

"These limitations notwithstanding, these findings can provide some reassurance to gastroenterologists when they decide to stop surveillance in elderly patients," Gellad said.

The study authors reported personal fees from multiple diagnostics companies.

Late post-colonoscopy cancers tied to detection rate

Ten-year data suggest the protective effect of a high adenoma detection rate persists well beyond four years.

By Julia Cipriano

Nanette van Roermund

High endoscopist adenoma detection rate (ADR) is known to reduce post-colonoscopy colorectal cancer (PCCRC) risk within three years, but new findings presented at Digestive Disease Week® (DDW) 2026 suggest this protective effect extends beyond four years.

In an analysis of more than 420,000 quality-assured baseline colonoscopies from the Dutch fecal immunochemical test–based screening program, individuals examined by endoscopists in the lowest four ADR quintiles had roughly two- to threefold higher PCCRC risk beyond four years compared with those examined by endoscopists in the highest ADR category

In an interview with *GI & Hepatology News*, presenting author Nanette van Roermund, a research associate and PhD candidate at Amsterdam University Medical Center, said that data on longer-term colorectal cancer risk following high-quality colonoscopy — reflected by ADR and proximal serrated polyp detection rate (PSPDR) — have been limited. "Cancers diagnosed more than four years after colonoscopy have often been assumed to represent newly developed polyps rather than missed polyps," she added, consistent with the World Endoscopy Organization's (WEO) position.

"Using 10-year follow-up data, our study demonstrates that high-quality colonoscopy is also protective against post-colonoscopy colorectal cancer in the long term, suggesting that cancers arising after four years may still be attributable to missed polyps," van Roermund remarked. "This underscores the importance of maintaining high procedural quality and routinely monitoring ADR and PSPDR to ensure optimal patient care."

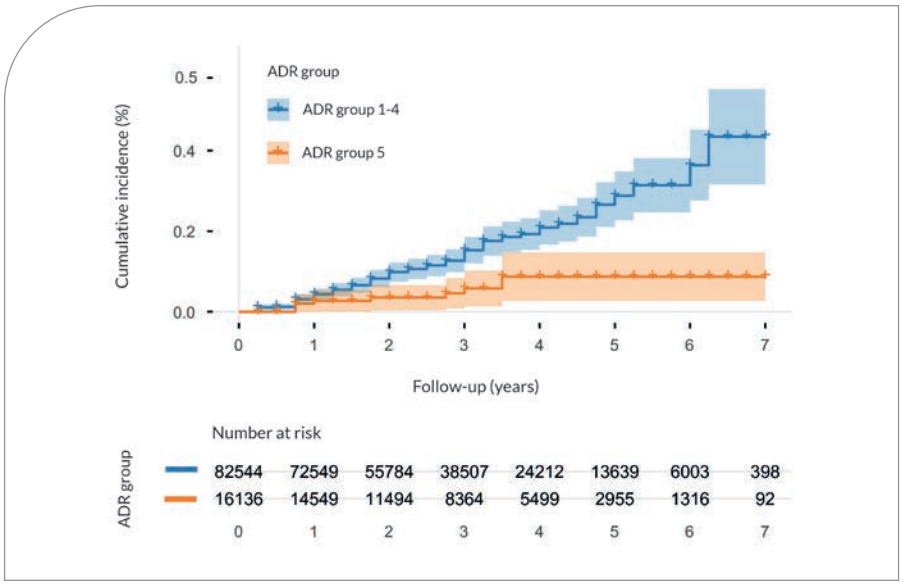
Study details

Quality-assured baseline colonoscopies from the Dutch screening program from 2014 to 2023 were analyzed. The data set was linked to polyp and colorectal cancer records from the national pathology database, with follow-up available through March 2025. ADR was calculated for each endoscopist who performed at least 75 procedures. To limit surveillance bias, only individuals whose endoscopist recommended a return to screening after 10 years were included.

The primary analysis included individuals with at least four years of follow-up, with time to event measured from the four-year landmark. The association between ADR and PCCRC risk was assessed using a shared frailty Cox proportional hazards model, adjusting for patient age and sex and including endoscopist as a random effect. For subgroup analyses, endoscopists were grouped into quintiles based on ADR. The timing of PCCRC was evaluated among individuals with at least eight years of follow-up within a 10-year period, using 2.5-year intervals.

Risk by ADR

In total, 420,356 colonoscopies were included in the analysis of ADR and PCCRC risk, performed by 521 endoscopists (median ADR, 61.3%). A total of 1,013 PCCRCs were identified over the 10-year period, corresponding to an incidence of 4.42 per 10,000 person-years of follow-up. Among the individuals recommended to return to screening after 10 years (n = 188,730), 138 PCCRCs were detected beyond four years after baseline (4.35 per 10,000 person-years of follow-up), with a median follow-up of seven years.



A Kaplan-Meier curve illustrating the relative risk of PCCRC beyond 4 years in patients treated by endoscopists with a high ADR (at least 67%) compared to those treated by endoscopists with a low ADR (<67%)

"High-quality colonoscopy may reduce cancer risk for longer than once believed."

A significant association was observed between endoscopist ADR and PCCRC risk beyond four years (hazard ratio [HR], 0.97).

Compared with individuals examined by endoscopists in the highest ADR category (> 66.8%), those examined by endoscopists in categories 1 through 4 were found to have significantly higher PCCRC risk beyond four years, with HRs of 3.30, 2.52, 3.16, and 2.78, respectively.

Among individuals with eight years of follow-up, 171 PCCRCs were detected: 19% occurred within the first 2.5 years, 30% between 2.5 and 5 years, 36% between 5 and 7.5 years, and 15% in the final 2.5 years. Of note, PCCRCs were evenly distributed across the 10-year time frame without early clustering or late increase, the researchers wrote.

Considering all these data, van Roermund stated in the interview, "The key finding of this study is that a high ADR and PSPDR of the endoscopist remain associated with a reduced risk of post-colonoscopy colorectal cancer even beyond four years after colonoscopy."

She continued, "A limitation of our study is the lack of data on the molecular characteristics of post-colonoscopy colorectal cancers. Future research should focus on evaluating the molecular origins of these cancers to further improve understanding and prevention strategies."

The author reported having no disclosures.

DDW is AGA's annual meeting, jointly sponsored by AGA, AASLD, ASGE, and SSAT. Learn more at ddw.org.

Ulcerative proctitis may not raise rectal cancer risk

Swedish registry study found rectal cancer rates comparable to the general population over more than a decade of follow-up.

By Doug Brunk

Åsa H. Everhov, MD, PhD

In a nationwide Swedish study, patients with isolated ulcerative proctitis were not more likely to develop rectal cancer or high-grade rectal dysplasia than people in the general population. The study followed nearly 16,000 patients for a median of more than 10 years.

The findings, published in *Gastroenterology*, support current European and US guideline recommendations that patients with limited ulcerative colitis (UC) disease extent can follow standard population colorectal cancer (CRC) screening practices rather than intensive inflammatory bowel disease (IBD) surveillance programs.

"Previous research has shown that patients with isolated ulcerative proctitis do not have an increased risk of CRC," lead study author Åsa H. Everhov, MD, PhD, of the Department of Surgery at Stockholm South General Hospital, Sweden, told GI & Hepatology News. "However, the incidence of rectal cancer has not been evaluated separately."

Researchers analyzed data from several Swedish national health registers, including the Swedish Inflammatory Bowel Disease Quality Register, National Patient Register, Cancer Register, and Cause of Death Register, to identify incident cases of isolated ulcerative proctitis diagnosed between 1997 and 2023. The investigators compared 15,957 patients with ulcerative proctitis against 158,079 matched population comparators without IBD, CRC, or colectomy.

Patients and comparators were matched by sex, age, and residence. Inclusion required two UC records in the National Patient Register or one such record in combination with entry in the quality register documenting proctitis as the initial disease extent. Patients with prior CRC or proctocolectomy were excluded.

The median age at diagnosis was 38 years, and 56% of patients were women. A family history of CRC was reported in 7% of patients with ulcerative proctitis and 6% of comparators.

During follow-up, inflammation stayed limited to the rectum in 60% of patients. In the remaining 40%, the disease spread farther into the colon: 23% developed left-sided colitis and 17% developed extensive colitis.

By the end of follow-up, 16% of patients had received azathioprine, 13% had been treated with advanced therapies, 3% underwent colectomy, and 1% underwent proctocolectomy.

Although chronic rectal inflammation has long been thought to increase cancer risk, the overall rates of rectal cancer were nearly the same in both groups. At five years, rectal cancer incidence was 0.11% among patients with ulcerative proctitis compared with 0.09% in matched comparators. At 10 years, incidence was 0.16% in patients and 0.21% in comparators.

Standardized rectal cancer incidence rates were 31 per 100,000 person-years among patients with ulcerative proctitis and 33 per 100,000 person-years among comparators. When investigators censored patients at the time of disease extension beyond the rectum, incidence rates remained identical at 33 per 100,000 person-years in both groups.

Rates of high-grade rectal dysplasia were also similar between the groups. After five years, the cumulative incidence was 0.06% in patients with ulcerative proctitis versus 0.03% in the comparison group. At 10 years, rates increased slightly to 0.10% and 0.07%, respectively.

In the primary analysis, standardized incidence rates for high-grade dysplasia were 15 cases per 100,000 person-years in patients with ulcerative proctitis and 11 cases per 100,000 person-years in the comparison group. Results were similar even after accounting for disease extension.

"The findings can influence clinical practice by supporting individualized approach to cancer surveillance in IBD," Dr. Everhov said. "Current surveillance

GI & Hepatology News invited Taku Kobayashi, MD, PhD, director of the Center for Advanced IBD Research and Treatment and co-director of the Department of Gastroenterology at Kitasato University Kitasato Institute Hospital, Tokyo, Japan, to weigh in on the study findings.

What makes this study significant?

Dr. Kobayashi: This study is important because the long-term cancer risk associated with isolated ulcerative proctitis has remained uncertain. Although previous studies suggested that CRC risk in UC is strongly associated with disease extent and appears relatively low in proctitis, most available data come from older cohorts with relatively limited numbers of patients with isolated proctitis.

This study provides important contemporary evidence using a large nationwide population-based cohort with long-term follow-up. The finding that patients with isolated ulcerative proctitis did not have an increased incidence of rectal cancer compared with matched population comparators is reassuring for both clinicians and patients. Another important strength is that the authors performed analyses both with and without censoring follow-up at the time of proximal disease extension, which helps address an important methodological issue in UC research.

How could this study's findings shape clinical practice?

Dr. Kobayashi: The findings generally support current European and US guideline recommendations that patients with isolated ulcerative proctitis may not require UC–specific surveillance colonoscopy programs and can instead follow standard population-based CRC screening strategies.

This is clinically important because it may help reduce unnecessary colonoscopy procedures, health care burden, and costs, while also decreasing the physical and psychological burden on patients. It may also simplify long-term management for physicians caring for patients with limited disease extent.

At the same time, surveillance decisions should still be individualized. Additional risk factors such as persistent inflammatory activity, primary sclerosing cholangitis, family history of CRC, and proximal disease extension during follow-up remain important considerations.

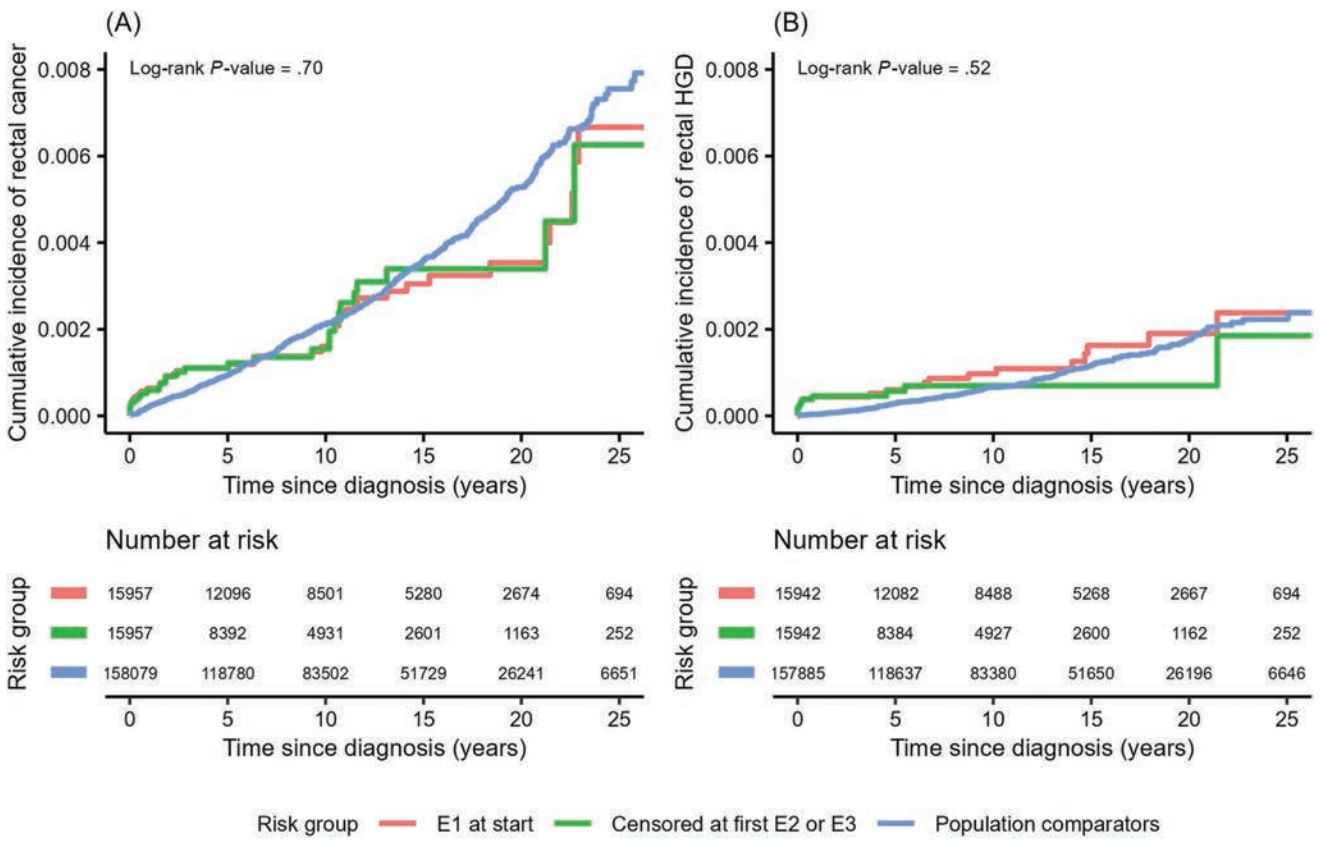
Where are the knowledge gaps?

Dr. Kobayashi: One unresolved issue is how CRC risk evolves after proximal disease extension. Approximately 40% of patients in this cohort eventually developed more extensive colitis during follow-up. Although analyses with and without censoring at extension yielded similar results, it remains uncertain whether CRC risk may increase later in patients who subsequently develop left-sided or extensive colitis.

This is important because proximal extension may occur many years after the initial diagnosis of proctitis. Therefore, the biologically relevant duration of more extensive colitis may be substantially shorter than the total study follow-up period. Since colitis-associated carcinogenesis is thought to depend on cumulative inflammatory burden over time, follow-up after extension may still be insufficient to fully evaluate long-term cancer risk associated with extended disease.

Future studies should examine whether surveillance strategies should be reassessed from the time of proximal extension rather than solely from the initial diagnosis of ulcerative proctitis.

Taku Kobayashi, MD, PhD



Cumulative incidence of (A) rectal cancer and (B) high-grade dysplasia in the following 3 groups: patients with proctitis at diagnosis (red line); patients with ulcerative proctitis at diagnosis, censored at disease extension beyond the rectum during follow-up (green line); and matched population comparators (blue line). Figure courtesy of *Gastroenterology*.

"Patients with disease confined to the rectum do not require cancer surveillance beyond that of the general population."

strategies are influenced by the known elevated cancer risk in extensive UC. This study confirms that patients with disease confined to the rectum do not require cancer surveillance beyond that of the general population. That can help reduce unnecessary colonoscopies, lower health care burden, and provide reassurance to patients."

She and her coauthors noted several limitations of the study, including its reliance on International Classification of Diseases (ICD) coding, which may have led to some misclassification. They also pointed out the possibility of detection bias, since ulcerative proctitis and rectal cancer can cause similar symptoms.

However, a sensitivity analysis excluding the first year of follow-up did not change the results. Additional analyses limited to patients with disease extension documented in the IBD quality register also produced findings consistent with the primary analysis.

The authors said unmeasured confounding factors, including smoking habits, diet, and participation in cancer screening, could not be excluded but were unlikely to meaningfully alter the conclusions.

The study was funded by the Swedish Research Council, Swedish Cancer Society, Swedish Medical Association, Bengt Ihre Research Fund, and the Regional Agreement on Medical Training and Clinical Research between Stockholm County Council and Karolinska Institutet. Several authors reported relationships with pharmaceutical companies including Janssen, Pfizer, AbbVie, Takeda, Ferring, Bristol Myers Squibb, MSD, Galapagos, Alfasigma, Baxter, Ethicon, and Tillotts Pharma.

Credit: Adobestock.com

Dual-pathway co-antibody therapy shows promise in refractory IBD

Dual inhibition of TNF-α and IL-23 pathways yields superior outcomes vs monotherapy in phase 2b Crohn's and UC trials.

By Noah Levine

A first-in-class co-antibody therapy targeting two inflammatory pathways simultaneously demonstrated clinically meaningful efficacy in patients with highly refractory inflammatory bowel disease (IBD), according to results from two phase 2b trials presented at Digestive Disease Week® (DDW) 2026.

The paired DUET-Crohn's and DUET-UC studies evaluated JNJ-78934804 (JNJ-4804), a fixed-dose combination of guselkumab, an anti–IL-23p19 antibody, and golimumab, an anti–TNF-α agent, in patients with moderate-to-severe Crohn's disease (CD) and ulcerative colitis (UC) who had failed prior systemic therapies. Across both trials, the therapy produced improvements in clinical remission and endoscopic outcomes, with the most pronounced effects observed in patients who had previously failed multiple advanced therapies.

Investigators emphasized that the rationale for dual-pathway targeting stems from limitations of current treatment paradigms. "Each successive therapy produces diminishing returns," said Bruce E. Sands, MD, MS, who led the Crohn's disease study, noting that patients with multiple prior treatment failures have few remaining options. By combining complementary mechanisms, the co-antibody approach aims to overcome immune escape pathways that may limit monotherapy effectiveness.

In the DUET-Crohn's trial, which enrolled 693 patients, approximately half had failed two or more systemic therapy classes. At week 48, high-dose JNJ-4804 achieved significantly higher rates of clinical remission and endoscopic response compared with golimumab alone, with treatment differences of 25.7 and 18.5 percentage points, respectively (nominal P<.001 for both). While comparisons with guselkumab monotherapy did not reach statistical significance in the overall population, the combination demonstrated numerically higher efficacy across endpoints.

Notably, treatment effects were amplified in the most refractory subgroup. Among patients who had failed at least two prior systemic therapies, high-dose JNJ-4804 produced clinically meaningful gains in clinical remission and endoscopic response versus both monotherapies and placebo, with differences exceeding 20 percentage points versus guselkumab and nearly 40 percentage points versus placebo.

Parallel findings were reported in the DUET-UC study, which included 572 patients with moderate-to-severe ulcerative colitis. Baseline disease severity was high, with approximately 70% of participants demonstrating severe endoscopic disease and modified Mayo scores of 7 to 9. At week 48, high-dose JNJ-4804 was significantly superior to golimumab for the primary endpoint of clinical remission (Δ28.4 percentage points; P<.001) and showed numerically greater efficacy than guselkumab.

As in the Crohn's cohort, outcomes were strongest among patients with prior exposure to multiple therapies. In this subgroup, the combination therapy demonstrated clinically meaningful improvements across clinical remission, corticosteroid-free remission, endoscopic improvement, and histologic-endoscopic endpoints compared with both monotherapies and placebo.

Maria T. Abreu, MD, who led the UC study, highlighted the mechanistic rationale during her DDW presentation, pointing to earlier work demonstrating synergistic effects at the molecular level when anti-TNF and anti–IL-23 therapies are combined. Dual inhibition not only suppressed inflammatory pathways more effectively but also enhanced epithelial repair processes beyond what was observed with either agent alone.

> *"By targeting two pathways at once, we may be able to 'outsmart' the immune system and achieve better outcomes."*

"In some patients, the immune system essentially finds a way around single therapies," Dr. Abreu said. "By targeting two pathways at once, we may be able to 'outsmart' the immune system and achieve better outcomes."

The safety profile of JNJ-4804 was consistent across both trials and comparable to monotherapy with either component. Serious adverse events were uncommon and primarily gastrointestinal in nature, with low rates of serious infection reported. In the UC study, adverse event rates were numerically lower in the combination therapy groups than in placebo or monotherapy arms, and no new safety signals emerged.

Investigators noted that the trials were designed to reflect real-world refractory populations, with many participants having prior exposure to anti-TNF agents, anti-integrins, and other advanced therapies. The magnitude of response in these patients — historically among the most difficult to treat — was therefore particularly notable.

"These are the patients we see in clinic who have exhausted multiple options," Dr. Abreu said, adding that achieving remission in this population represents a meaningful advance.

Taken together, the DUET trials suggest that dual-pathway inhibition with a co-antibody approach may offer a new therapeutic strategy for patients with refractory IBD. Based on the phase 2b findings, investigators indicated that JNJ-4804 is poised to advance to phase 3 development.

Dr. Abreu has served as a consultant for approximately 10 pharmaceutical companies, including AbbVie, Amgen, Bristol Myers Squibb, Eli Lilly, Genentech, Gilead, Janssen, Pfizer, Takeda, and UCB.

Dr. Sands has served as a consultant for numerous pharmaceutical and biotechnology companies (over 60 in total, including AbbVie, Amgen, Pfizer, Takeda, Eli Lilly, Bristol Myers Squibb, Genentech, Merck, and many others). He has also participated in speakers bureaus for several companies (including Abivax, Takeda, Pfizer, Merck, and AbbVie) and holds public stock in J&J Innovative Medicine, Ventyx Biosciences, and Doximity.

DDW is AGA's annual meeting, jointly sponsored by AGA, AASLD, ASGE, and SSAT. Learn more at ddw.org.

Early 'top-down' therapy reduces Crohn's disease complications

PROFILE follow-up data showed lower rates of surgery, hospitalization, and disease progression versus step-up treatment.

By Alun Evans

A long-term follow-up analysis of the PROFILE (Predicting Outcomes for Crohn's Disease Using a Molecular Biomarker) randomized clinical trial indicated that early intensive therapy for Crohn's disease may substantially improve long-term clinical outcomes compared with an accelerated step-up treatment approach, according to data presented at Digestive Disease Week® (DDW) 2026.

The PROFILE trial enrolled 386 adults with newly diagnosed, active Crohn's disease and randomized them to either early "top-down" therapy using infliximab plus an immunomodulator or an accelerated "step-up" strategy using conventional therapies with later escalation. After the 48-week trial period, participants were followed in routine clinical care for up to approximately five years (median follow-up 1,352 days). The analysis included 357 patients (92%) with available follow-up data and evaluated outcomes such as abdominal surgery, hospitalization, and progression to more advanced disease behavior.

Across the follow-up period, outcomes consistently favored the early intensive treatment group. The investigators reported that "[Crohn's disease]-related abdominal surgeries were more frequent in [step-up] compared to [top-down] patients." In total, there were 27 surgeries in 25 patients initially assigned to step-up therapy compared with 6 surgeries in 6 patients in the top-down group. The study also found that progression to more complicated disease behavior was more common in the step-up group (33 vs. 13 cases), and Crohn's-related hospital admissions excluding surgery were higher as well.

"Over 4 years follow-up, 'top-down' treatment was associated with reduced disease progression (2x), reduced hospitalization (3x), and reduced need for abdominal surgery (5x)," the authors wrote, summarizing the overall impact of early therapy. "Early and effective control of inflammation is associated with a modified course of Crohn's disease and should be considered the standard-of-care treatment strategy from diagnosis."

Clinically, these findings support a shift toward earlier use of advanced therapies in patients with Crohn's disease at diagnosis, rather than waiting for stepwise escalation after treatment failure. The data suggest that early inflammatory control may not only improve short-term outcomes but also reduce long-term complications, including the need for surgery. If validated broadly, these results may further support reconsideration of traditional step-up treatment paradigms in favor of earlier biologic-based strategies in appropriate patients.

Study author Nurulamin Noor, MD, PhD, clinical lecturer in gastroenterology at the University of Cambridge, told *GI & Hepatology News* there has been debate for many years on whether it is possible to modify the course of Crohn's disease.

"The PROFILE trial long-term data demonstrated that early and effective control of inflammation from diagnosis, resulted in significantly lower risk of complications for patients including fewer abdominal surgeries, fewer hospitalizations and substantially lower progression to stricturing and penetrating complications of Crohn's disease," Dr. Noor said. "These 5-year data from PROFILE provide the most robust evidence to date that the course of Crohn's disease is indeed modifiable with early effective therapy initiated from diagnosis."

Dr. Noor disclosed serving on the speakers bureau for AbbVie, Bristol Myers Squibb, Celltrion, Ferring, Johnson & Johnson, Lilly, Pfizer, Pharmacosmos, and Tillotts, and as a scientific/medical advisory board member for AbbVie, Pfizer, and Takeda.

DDW is AGA's annual meeting, jointly sponsored by AGA, AASLD, ASGE, and SSAT. Learn more at ddw.org.

Eating disorders in the gastroenterology clinic

By Beth Rosen MS, RD, CDN, CSDH; Jordan Shapiro, MD, MS

Eating disorders are common, deadly, and underdiagnosed

Eating disorders (ED) are life-threatening, complex psychiatric conditions impacting patients along the entire biopsychosocial spectrum. EDs are characterized by persistent disturbances in eating behaviors, distressing thoughts and beliefs regarding food, weight, and body shape, and disruption of psychosocial functioning around food and eating.[1,2] These disorders include, but are not limited to, anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), and avoidant/restrictive food intake disorder (ARFID). Despite a lifetime prevalence of 2% to 5%, more than half of individuals meeting ED criteria go undiagnosed.[3,4]

Basics relevant to GI practice

AEDs are diagnosed using *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition, Text Revision (DSM-5-TR) criteria. While these criteria emphasize emotional and behavioral issues related to maladaptive eating, gastrointestinal (GI) symptoms are common and often the reason patients present for care

Anorexia nervosa

AN is characterized by restriction of energy intake leading to significantly low body weight, intense fear of weight gain or becoming fat, and a disturbance in body image.[2] AN can occur in individuals of any body size and may be missed when clinicians rely on weight alone. Behavioral clues include rigid food rules, anxiety about dietary recommendations when advised to liberalize intake, calorie tracking, avoidance of dietary fats or carbohydrates, excessive exercise, and resistance to nutrition support. In GI settings, patients may present with reflux, delayed gastric emptying, early satiety, bloating, abdominal pain, or constipation related to malnutrition and slowed motility.[5,6]

Bulimia nervosa

BN is characterized by recurrent binge eating and compensatory behaviors — such as self-induced vomiting, laxative misuse, and excessive exercise — to prevent weight gain.[2] Behavioral signs may include repeated requests for GI evaluation of symptoms temporally related to purging behaviors. Because patients often have weights within or above normative ranges, the diagnosis can be overlooked unless clinicians inquire directly and nonjudgmentally about binge–purge behaviors. In GI practices, patients may present with reflux refractory to treatment, dysphagia, dental enamel erosion, parotid gland enlargement, chronic sore throat, abdominal pain, bloating, diarrhea related to laxative misuse, or electrolyte abnormalities such as hypokalemia.[7]

Binge eating disorder

BED is characterized by recurrent binge-eating episodes without the compensatory behaviors

seen in BN.[2] BED is strongly associated with weight stigma and internalized weight bias, both of which contribute to delayed care and increased psychological distress.[8] Clues for BED include chronic dieting, restriction earlier in the day followed by evening overeating, and weight cycling. Physical cues can include metabolic abnormalities or poorly controlled GI symptoms despite multiple dietary eliminations. In GI settings, patients may present with reflux, bloating, postprandial abdominal pain, diarrhea, or exacerbations of disorders of gut–brain interaction (DGBI) following binge episodes. Importantly, recommending restrictive diets without screening may unintentionally perpetuate the binge–restrict cycle.

Avoidant/restrictive food intake disorder

ARFID is characterized by inadequate nutritional intake and weight loss, nutritional deficiencies, and/or reliance on nutritional supplements that is not driven by body image concerns but by sensory sensitivity, fear of aversive consequences (e.g., choking or vomiting), or low appetite.[2] Individuals often exhibit extensive food elimination beyond evidence-based recommendations. Physical findings may include micronutrient deficiencies, unintended weight loss, fatigue, and persistent GI complaints.

ARFID is increasingly recognized among individuals with DGBI, particularly irritable bowel syndrome (IBS), functional dyspepsia, and emetophobia.[9,10]

Why education is important as a GI physician

If you treat patients with GI disorders, you are likely treating patients with EDs. In one study, 98% of individuals with EDs met criteria for a DGBI, most commonly IBS.[5] Given the underdiagnosis of EDs and the prevalence of GI symptoms in patients with EDs, many patients present to GI clinics without a known ED diagnosis.[11,12] Shared features such as dietary restriction, fear of food-related symptoms, weight fluctuations, bloating, and altered bowel patterns create substantial risk for missed or delayed recognition.

Why gastroenterologists may struggle to care for patients with EDs

EDs and GI symptoms frequently coexist. Yet despite this clinical overlap, many gastroenterologists feel underprepared to identify and manage EDs in practice. Several structural and educational blind spots contribute to this gap.

Introductory Statement

"I ask all of my patients with ongoing GI symptoms a few questions about their relationship with food and their body, because this can affect their symptoms."

Questions	Flags for Disordered Eating
Do you have a history of an eating disorder or disordered eating?	History with/without treatment with other disordered eating flags; history of disordered eating behaviors in the past 12 months
Can you describe how bloating feels to you?	Confusing normal postprandial fullness with visible distention Inflexibility around increasing food variety/intake for fear of bloating without distention
Do you follow any food rules?	Unwillingness to challenge food rules; presence of continued, voluntary dietary restriction without improvement in symptoms
Do you avoid eating certain foods and for what purpose?	Body image; weight control; morality ("good/bad," "healthy/junk," "clean"); Palatability/texture
How do you feel about your body currently?	Dissatisfaction with body/body parts; frequent use of scales or mirrors; body image impacts nutritional intake

Resource	Notes
Project Heal theprojectheal.org	Non-profit organization that offers free clinical assessments, financial assistance, and insurance navigation support.
Eating Disorders Coalition eatingdisorderscoalition.org	Non-profit organization that offers education and advocacy for people with eating disorders (ED).
The EDGI Training Project edgitraining.com	A textbook resource for becoming informed on treating people with co-occurring eating disorders and GI disorders.
National Center of Excellence for Eating Disorders nceedus.org	Free webinars for healthcare providers with evidenced-based interventions for eating disorders.

Implicit biases and difficulty identifying eating disorders in practice

Weight bias — explicit and implicit — impairs identification of EDs, especially in patients with normal or higher weights. Weight loss may be praised rather than explored. The rise of glucagon-like-peptide-1 (GLP-1) receptor agonists add complexity as these agents commonly cause nausea, vomiting, early satiety, bloating, and constipation — symptoms that overlap with DGBI and ED presentations. Symptoms may be attributed solely to medication effects without considering underlying disordered eating. Additionally, GLP-1 medications may be misused for weight control outside of clear medical indications. Without routine screening, EDs often remain invisible.

Limited education on overlap

Training on EDs is limited and often emphasizes rare, catastrophic GI complications (e.g., superior mesenteric artery syndrome, Boerhaave syndrome, or necrotizing sialometaplasia) rather than common chronic manifestations.

The amplified gut–brain axis

DGBIs are inherently bidirectional. The dysregulation of the gut-brain axis is intensified in EDs: restriction or purging worsen GI symptoms and GI symptoms further restrict intake, threatening recovery. GI providers are uniquely positioned to interrupt this reinforcing cycle of physiologic symptoms and maladaptive behaviors.

Elimination diets without screening

Elimination diets are widely used in celiac disease, IBS, eosinophilic esophagitis, and other GI disease states. Patients also self-impose restrictions to improve symptoms or due to an ED. Diets such as the low-FODMAP are often recommended without dietitian support, defined duration, or ED screening. Restrictive diets may reinforce food fears, increase rigidity, and worsen nutritional compromise. Recognizing these, AGA recommends screening for EDs and disordered eating prior to initiating the elimination phase of the low FODMAP diet.[13] Similar caution should be used with any restrictive diet.

The role of the GI provider in managing symptoms

While many GI symptoms improve with nutritional restoration, not all resolve. Persistent symptoms can undermine recovery and warrant targeted treatment. GI care often involves adapting treatment paradigms for conditions such as functional dyspepsia, IBS, and constipation, with ED-specific considerations.

Bloating and distention

Bloating and distention may exacerbate body image distress. Binging may lead to aerophagia which can contribute to gaseous distention. In addition, constipation is a common trigger for bloating and distention and should evaluated for and treated early on (see below).[14] Restrictive diets (e.g., low-FODMAP diet) should be avoided or used cautiously in collaboration with a registered dietitian. Digestive enzymes (e.g., lactase, FODZYME) may support dietary liberalization. Evaluation for small intestinal bacterial overgrowth (SIBO) and abdomino-phrenic dyssynergia (APD) may also be appropriate.

Constipation

Laxative use for constipation requires transparent discussion of prior purging behaviors. The most common form of outlet dysfunction constipation, dyssynergic defecation, may be more likely to persist after ED recovery, sometimes requiring pelvic floor physical therapy.[15] Rectal exams, motility testing, and pelvic floor physical therapy should be conducted in a trauma-informed manner, as individuals with EDs have higher rates of prior sexual trauma.[16]

Abdominal pain

Neuromodulators (e.g., amitriptyline and duloxetine) may be effective, but caution is warranted due to potential polypharmacy in patients receiving other psychiatric treatments. Brain-gut behavioral therapies (e.g., hypnosis and cognitive behavioral therapy) are effective in-person or via digital app-based versions.

Screening and referral

Despite the significant overlap of ED and GI disorders, GI providers lack standardized screening tools, confidence in initiating conversations about eating behaviors, and clear referral pathways. A large retrospective cohort study demonstrated that nearly three-quarters of patients with EDs had been seen by GI providers, yet almost half were not in active recovery at the time of consultation; these represent missed opportunities for early identification and intervention.[17]

Validated screening tools specific to GI populations are limited. However, clinicians can incorporate targeted questions to distinguish restriction due to body image versus that driven by fear of GI pain (see table 1 for examples).

Initiating these conversations with patients can feel uncomfortable, but routine, nonjudgemental inquiry can help direct the patient toward recovery. Table 2 contains resources to share with the patients which they can access for further evaluation and treatment needs.

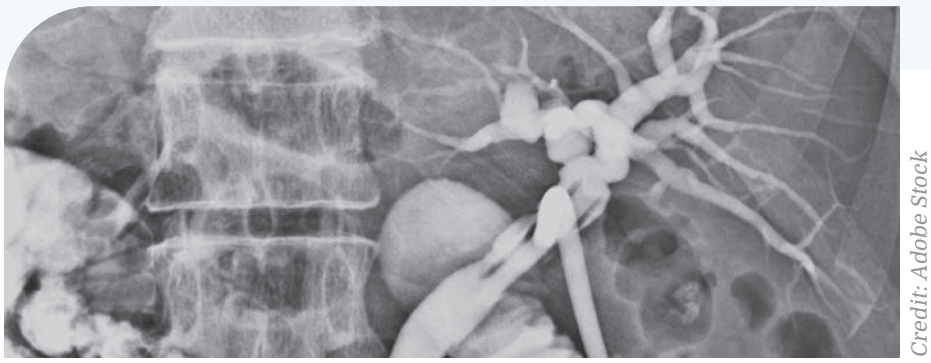
The necessity of multidisciplinary care

ED treatment requires a multidisciplinary team specialized in EDs, typically a physician, registered dietitian, psychologist, and psychiatrist. GI physicians play a crucial role in identification, diagnostic testing to rule out other causes of symptoms, symptom management, and support recovery. For patients how often experience stigma and shame in health care settings, an ED-aware, trauma-informed GI provider can make an important difference in the recovery journey.

Ms. Rosen is affiliated with Beth Rosen Nutrition and Oshi Health. Dr. Shapiro is affiliated with Gentle GI, PLLC, and the Medical Clinic of Houston, Texas.

The authors reported having no conflicts of interest.

For the full list of references, scan the QR code to read this article online.



Credit: Adobe Stock

Cholangitis trial supports stopping antibiotics 24 hours after drainage

In a 413-patient randomized trial, a single-day course matched the guideline-recommended four to seven days for clinical cure.

By Noah Levine

New randomized data presented at Digestive Disease Week® (DDW) 2026 challenged long-standing guidance on antibiotic duration in acute cholangitis, suggesting that treatment may be safely shortened to just 24 hours following successful biliary drainage.

In a multicenter, open-label, randomized controlled noninferiority trial conducted across 31 hospitals in the Netherlands, investigators found that a one-day course of antibiotics after adequate endoscopic biliary drainage was noninferior to the guideline-recommended four to seven days in achieving clinical cure. The findings have potential implications for antimicrobial stewardship and clinical practice in gastroenterology, as presented by lead author Anouk G. Overdevest, MD, of the Department of Gastroenterology and Hepatology at Amsterdam UMC, Amsterdam, the Netherlands.

Acute cholangitis remains a serious infection characterized by biliary obstruction and bacterial overgrowth, most commonly due to gallstones, and is typically managed with a combination of urgent biliary decompression and systemic antibiotics. However, Dr. Overdevest asked, "Once there is source control, what is the optimal antibiotic treatment duration after [endoscopic retrograde cholangiopancreatography (ERCP)]?" She emphasized that reducing antibiotic exposure is increasingly critical in the context of rising antimicrobial resistance, particularly among gram-negative pathogens such as *Escherichia coli* and *Klebsiella* species.

The COBRA trial enrolled adults with acute cholangitis due to distal biliary obstruction who achieved adequate drainage and fever resolution within 24 hours after (ERCP). Participants were randomized to receive either one day or four-to-seven days of antibiotic therapy, with stratification by etiology (benign vs malignant obstruction) and blood culture status.

The primary endpoint — clinical cure, defined as being symptom-free by day 14 without relapse or death by day 30 — was adjudicated by a blinded independent committee. A total of 413 patients were randomized between 2023 and 2025, with 205 patients in each treatment arm included in the intention-to-treat analysis.

Clinical cure was achieved in 95.1% of patients in the one-day group compared with 93.7% in the four- to seven-day group, yielding an absolute risk difference of 1.5% (one-sided 95% confidence limit, −2.4%), meeting the prespecified criterion for noninferiority. These findings were consistent in per-protocol and sensitivity analyses.

Importantly, outcomes were similar across clinically relevant subgroups, including patients with malignant obstruction and those with gram-negative bacteremia at baseline. Mortality rates were low and comparable between groups, with 30-day all-cause mortality of two cases in the short-course arm and one case in the longer-course arm.

Rates of relapse were also similar, and time-to-event analyses showed overlapping curves between the treatment groups, indicating no difference in recurrence risk following ERCP.

Notably, shorter antibiotic therapy was associated with a marked reduction in antibiotic exposure and adverse events. By day 30, the median duration of antibiotic use was one day in the short-course group versus five days in the standard-treatment group. Antibiotic-related adverse events occurred significantly more often in the longer-course group (60.6% vs 8.3%).

"These findings support the principle that limiting antibiotic duration is not only safe but may also reduce patient burden and adverse effects," Dr. Overdevest said.

The trial was designed with a noninferiority margin of −7.5%, based on an anticipated clinical cure rate of approximately 90% in both groups. High protocol adherence (93%-94%) strengthened the reliability of the results.

While the study included patients with moderate to severe cholangitis, only a small proportion had severe disease, leaving some uncertainty about the generalizability of findings in critically ill populations. However, Dr. Overdevest suggested that the results broadly support shorter antibiotic courses once adequate biliary drainage is achieved.

The investigators concluded that a one-day antibiotic regimen after successful ERCP should be considered the preferred treatment duration for acute cholangitis. If adopted, this approach could represent a significant shift from current Tokyo Guidelines recommendations and align clinical practice more closely with antimicrobial stewardship goals.

Dr. Overdevest reported no disclosures.

DDW is AGA's annual meeting, jointly sponsored by AGA, AASLD, ASGE, and SSAT. Learn more at ddw.org.

MASH label expansion adds few new semaglutide candidates

Most patients with fibrotic liver disease already qualify through obesity- or diabetes-related indications, a population-based analysis found.

By Doug Brunk

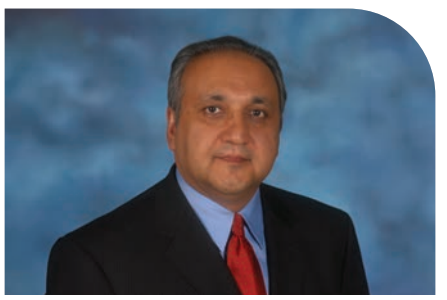
The recent US approval of semaglutide for fibrotic metabolic dysfunction-associated steatohepatitis is likely to add relatively few newly eligible patients because most already qualify for treatment through existing indications for obesity or high-risk type 2 diabetes, a population-based analysis found.

Although candidacy for GLP-1 receptor agonists is high, penetration of use for MASH treatment remains suboptimal," one of the study authors, Zobair M. Younossi, MD, MPH, professor and chairman of the Global NASH/MASH Council Center for Outcomes Research in Liver Disease, told *GI & Hepatology News*. "The main challenge in GI is to assure that primary care and diabetology colleagues risk stratify at-risk patients for MASH and start appropriate treatment according to published guidelines."

Researchers analyzed data from 6,936 adults in the National Health and Nutrition Examination Survey (NHANES) from 2017 to 2020 and found that 52% of US adults already qualified for semaglutide based on FDA-approved indications for weight loss or high-risk type 2 diabetes. Adding fibrotic metabolic dysfunction-associated steatohepatitis (MASH) as an approved use had little impact on eligibility, increasing the rate by less than 1 percentage point.

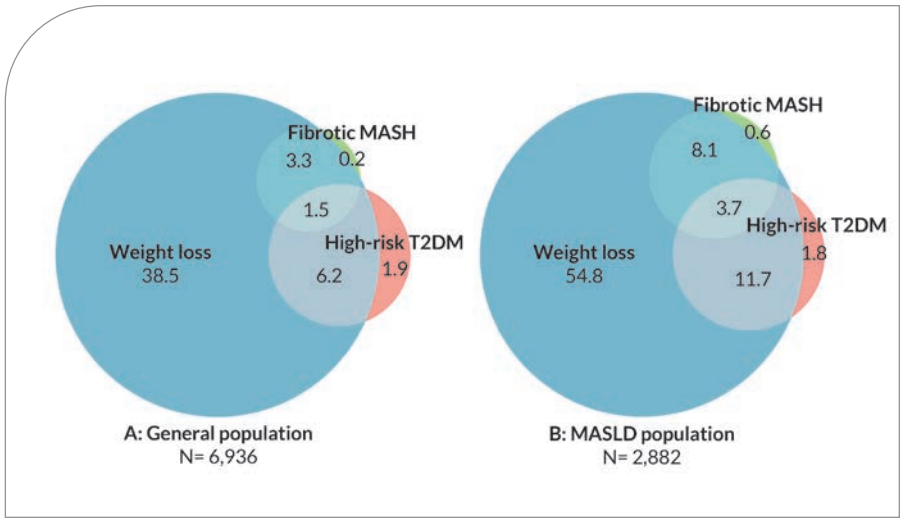
The study, published in *Gastro Hep Advances*, examined the impact of semaglutide's newly approved indication for patients with MASH and stage F2-F3 liver fibrosis. Researchers used transient elastography data to identify patients with metabolic dysfunction-associated steatotic liver disease (MASLD) and fibrotic MASH, while excluding those with viral hepatitis or excessive alcohol use. The findings were confirmed in a separate German cohort of 213 patients with biopsy-confirmed MASLD and F2-F3 fibrosis.

Among patients with MASLD, 80% already qualified for semaglutide under existing indications, and adding fibrotic MASH increased eligibility only marginally, to 81%. Among patients with fibrotic MASH, 95% were already eligible because of obesity-related conditions, high-risk type 2 diabetes, or both, while only 5% qualified solely under the new liver disease indication.

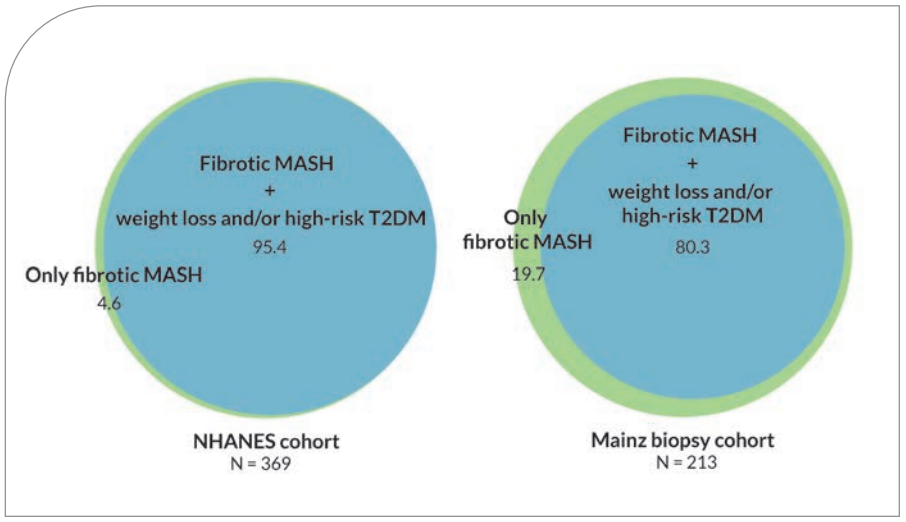


Zobair Younossi, MD, MPH

The weight-loss indication accounted for most semaglutide eligibility. Among patients who qualified under existing indications, 74% had dyslipidemia, 62% had hypertension, 33% had prediabetes, 17% had obstructive sleep apnea, and 11% had cardiovascular disease. Overall,



Semaglutide eligibility across the (A) adult US population and (B) MASLD population for each indication in percentages. In the general population, semaglutide was indicated in 51.8%, of which fibrotic MASH was accountable for 0.2%. In the MASLD population, semaglutide was indicated in 80.9%, of which 0.6% was due to fibrotic MASH. Of note, there was a semaglutide indication overlap between fibrotic MASH and T2DM in 0.1% of the general population and 0.2% of the MASLD population, which could not be visualized. Prevalences were calculated using the survey sample weights to simulate a US population. Figure courtesy of *Gastro Hep Advances*.



Semaglutide eligibility among individuals eligible for treatment due to fibrotic MASH in percentages. In the fibrotic MASH population, the indication of semaglutide other than fibrotic MASH was present in 95.4%. In a German biopsy cohort of patients with F2–F3 fibrosis and MASLD, the indication for semaglutide other than fibrotic MASH was present in 80.3%. Image courtesy of *Gastro Hep Advances*.

41% of adults had MASLD and 5% had fibrotic MASH.

The validation cohort yielded similar results. Among patients with biopsy-confirmed MASLD and F2-F3 fibrosis, 80% already met eligibility criteria for semaglutide through existing indications. Those who qualified only under the new fibrotic MASH indication generally had lower liver stiffness measurements and lower noninvasive fibrosis scores than patients who were already eligible because of obesity- or diabetes-related conditions.

The authors noted that a key limitation of the study is that it was based on US population data and therefore may not be generalizable to countries with lower rates of obesity and metabolic disease. Fibrotic MASH was identified using noninvasive criteria in NHANES rather than liver biopsy, and some cardiovascular risk data were unavailable in the validation cohort. The authors also pointed to ongoing debate over the accuracy and interpretation of liver stiffness measurements in people with obesity.

Dr. Younossi noted that pharmacotherapy "must always be accompanied by lifestyle modification to minimize ultra processed foods, high sugary drinks, and alcohol."

Funding was provided by the Foundation for Liver and Gastrointestinal Research, Rotterdam, the Netherlands. Multiple authors reported consulting fees, research support, speaker fees, advisory roles, or clinical trial involvement with pharmaceutical companies developing therapies for metabolic liver disease.

GI & Hepatology News invited Mohamed Elsaid, PhD, MPH, assistant professor in the department of biomedical informatics at The Ohio State University, to share his perspective.

Why is this study important and how might the findings impact clinical practice?

Dr. Elsaid: The ESSENCE trial showed that semaglutide improves liver histology in fibrotic MASH, which is why the FDA approved it for that use. For the current analysis, Laurens A. van Kleef, MD, PhD, and colleagues asked the next question, which is the more practical one. Once fibrotic MASH is on the label, how many more patients can actually be treated? In a nationally representative sample of US adults, eligibility moved from 51.5% to 51.8%. That is, in effect, no change at all. The reason is overlap, and that is the real finding of this work. In this study, almost everyone who qualified for semaglutide because of fibrotic MASH already qualified because of obesity or high-risk diabetes. Roughly 95% of the fibrotic MASH group met a conventional indication, primarily due to weight-related conditions. So the study makes visible something we lose track of when we organize care by organ system, which is very important. In metabolic liver disease, the obesity patient, the diabetes patient, and the liver patient are usually one person.

I would read it less as a new reason to prescribe and more as a reason to go looking. If most people with fibrotic MASH are already eligible through their weight or their diabetes, then the patient in the endocrinology or primary care clinic with obesity and type 2 diabetes is very often the same patient with unrecognized liver fibrosis. The useful move is to pick those patients up with simple noninvasive tests, rather than waiting on a separate liver workup to confirm an eligibility that, for most of them, is already there. This brings us to the larger point: we need to stop running these conditions in separate clinics. One drug now sits at the intersection of obesity, diabetes, and liver disease, and care should be built around that fact. We also need to factor in that semaglutide works alongside diet and activity, not instead of them, and access is still far from uniform.

There is also an easy-to-miss effective dosing issue. As per the ESSENCE trial, the dose that benefits the liver is 2.4 mg weekly with 1.7 mg weekly as a fallback if 2.4 mg is not tolerated. This is higher than the dose many patients take for diabetes, sometimes as low as 1.0 mg. A patient who is "already on semaglutide," in other words, may not be on a MASH-approved dose, even though lower doses may still provide metabolic or liver-related benefit.

Where are the knowledge gaps?

Dr. Elsaid: A few stand out. First is the gap between eligibility and treatment. Knowing that half of US adults qualify says nothing about how many will start the drug, stay on it, and have it covered. That chain, from eligibility to real uptake by insurer, is where the policy questions actually sit, and it is not something this study could measure.

Second, the phenotype is noninvasively modeled, not biopsy-confirmed. In NHANES, fibrotic MASH was inferred from CAP-defined steatosis and a single liver stiffness reading, not from a biopsy. Elastography stages fibrosis reasonably well, but it does not see the inflammation and ballooning that define steatohepatitis. Nonfibrotic factors and test variability can also elevate liver stiffness, so repeat or sequential testing may be needed to reduce misclassification. The number here is best understood as treatment-eligible fibrotic MASLD, and the harder task of defining who truly has at-risk disease, with repeat testing or a two-step pathway, is still in front of us.

Mohamed Elsaid, PhD, MPH

A disciplined approach to large-polyp EMR

Dear colleagues,

In past issues of Perspectives, we have explored some of the most important controversies in gastrointestinal endoscopy, including the management of large colorectal polyps and Barrett's esophagus. These discussions highlighted evolving evidence, areas of ongoing debate, and the clinical decisions that often extend beyond guideline recommendations. In this issue, we continue that theme by shifting from controversy to practicality, inviting experts in the field to share the technical pearls, procedural strategies, and real-world approaches that have shaped their practices. Gottumukkala S. Raju, MD, outlines a structured approach to endoscopic mucosal resection of large colorectal polyps, emphasizing the importance of planning, lesion assessment, scope control, and meticulous resection technique. In a complementary article, Arvind Trindade, MD, reviews his recommendations for Barrett's esophagus management, offering practical guidance on screening, endoscopic eradication techniques, specialized referral centers, and the nuanced management of low-grade dysplasia. Together, these contributions build upon the tradition established in the AGA Perspectives series — bringing expert insight to everyday clinical challenges and providing actionable recommendations that can be readily incorporated into practice.

Gyanprakash A. Ketwaroo, MD, MSc, is associate professor of medicine, Yale University, New Haven, and chief of endoscopy at West Haven VA Medical Center, both in Connecticut. He is an associate editor for GI & Hepatology News.

Beyond ablation: Contemporary challenges in the management of dysplastic Barrett's

By Arvind Trindade, MD

The management of Barrett's esophagus (BE) changed dramatically following publication of the landmark AIM Dysplasia Trial in 2009, led by Nicholas Shaheen and colleagues. Today, from a distance, the treatment paradigm appears straightforward: surveillance for nondysplastic BE, endoscopic resection of visible lesions, and radiofrequency ablation (RFA) for flat dysplastic disease. Yet after 14 years managing a high-volume Barrett's referral practice, I have come to appreciate that successful treatment is rarely this simple. Important nuances remain regarding screening, lesion recognition, selection of eradication modalities, referral patterns, and the management of low-grade dysplasia (LGD). In this commentary, I discuss several of the most relevant controversies and practical considerations facing clinicians today.

Why is the incidence of esophageal adenocarcinoma not declining despite highly effective endoscopic eradication therapy?

The remarkable success of endoscopic eradication therapy has shifted the focus of BE research and clinical practice toward screening and early detection. While we now possess highly effective tools to eradicate dysplastic BE, these advances can only benefit patients whose disease is identified before progression to cancer.

Gastroenterologists performing screening colonoscopy should strongly consider performing upper endoscopy during the same session in patients who meet established BE screening criteria. Equally important is obtaining a thorough family history. A history of BE or esophageal adenocarcinoma in a first-degree relative is a significant risk factor and, by itself, qualifies many patients for screening according to current American Society for Gastrointestinal Endoscopy recommendations.

Unfortunately, most patients who meet screening criteria in primary care settings are never evaluated for BE. This represents a major missed opportunity for cancer prevention. To address this gap, several nonendoscopic screening tools and molecular-based screening strategies have been developed and are now clinically available. These technologies have the potential to expand screening beyond the endoscopy suite and into primary care practices, reducing the need for referral-based screening paradigms.

Gastroenterologists practicing within large health care systems, academic centers, multispecialty groups, and integrated private practices should actively partner with their primary care colleagues to improve identification of at-risk individuals. Without greater emphasis on screening and early detection, even the most effective eradication therapies will have only a limited impact on the overall incidence of esophageal adenocarcinoma.

When eradicating dysplastic BE, which tools should I use?

Successful endoscopic eradication therapy begins with meticulous lesion recognition. Before considering any ablative modality, I perform endoscopic resection of all nodular lesions and any areas suspicious for high-grade dysplasia (HGD), even when subtle or non-nodular in appearance. In experienced hands, HGD is frequently endoscopically visible, although the findings may be nuanced.

A careful examination is essential. The esophagus should be thoroughly cleansed, inspected under high-definition white light and virtual chromoendoscopy, and systematically evaluated for subtle mucosal abnormalities before resection is performed. Endoscopic resection serves not only as definitive therapy for visible lesions but also provides critical histologic staging information that may alter management. Whether endoscopic mucosal resection (EMR) or endoscopic submucosal dissection is preferred remains an area of ongoing debate and is beyond the scope of this commentary. Following resection, I typically allow two to three months for healing before initiating eradication therapy for the remaining flat Barrett's segment.

Today, several effective options exist for

eradication of flat dysplastic BE, including RFA, nitrous oxide cryoballoon therapy, liquid nitrogen spray cryotherapy, and hybrid argon plasma coagulation (APC). Prospective data support the use of each modality, making treatment selection increasingly individualized.

When discussing treatment options with patients, I emphasize that RFA possesses the longest track record and the most robust evidence base. At the same time, cryotherapy has accumulated high-quality multicenter prospective data demonstrating outcomes comparable to RFA in treatment-naive patients. Because postprocedural discomfort remains a common limitation of RFA, cryotherapy can be an attractive alternative for patients who experience significant pain or are hesitant to continue treatment after an initial RFA session.

Hybrid APC is another valuable addition to the therapeutic armamentarium. While effective, its focal treatment pattern and need for repeated submucosal lifting can make treatment of long Barrett's segments more labor-intensive. For this reason, I most commonly reserve hybrid APC for refractory or residual disease rather than as a first-line therapy.

Does Barrett's endoscopic eradication therapy belong in specialized referral centers?

The ultimate goal of Barrett's endotherapy is prevention of esophageal adenocarcinoma through complete eradication of intestinal metaplasia (CE-IM). To maximize the likelihood of achieving this outcome, patients should receive care in environments that possess the expertise, experience, and procedural resources necessary to manage the full spectrum of Barrett's neoplasia.

Multiple studies have demonstrated that patients referred from community practices to specialized Barrett's centers are frequently found to have previously unrecognized HGD or visible lesions. In some series, expert evaluation identifies advanced pathology in up to one-quarter of referred patients. Similarly, lesion detection rates are consistently higher among experienced Barrett's endoscopists than among lower-volume operators. Procedural volume also matters. Data from the U.S. suggest that outcomes improve significantly with operator experience, with the learning curve for RFA plateauing after approximately 30 cases — a volume more commonly encountered in dedicated referral programs.

In my view, these data support a strong argument for centralization of Barrett's endoscopic eradication therapy. Ideally, procedures should be performed in centers with dedicated Barrett's expertise, high procedural volumes, and access to a full range of resection and ablative technologies. The treatment plan must remain adaptable. An endoscopist who intends to perform RFA should be prepared to perform endoscopic resection if a previously unrecognized lesion is encountered. Likewise, if multiple ablation sessions fail to produce meaningful regression, the operator should be comfortable transitioning to alternative modalities such as cryotherapy or hybrid APC.

Endoscopic eradication therapy should not be viewed as a series of isolated procedures. Rather, it is a longitudinal treatment strategy aimed at achieving CE-IM. Maintaining focus on this endpoint — and possessing the tools and expertise required to reach it — is what ultimately distinguishes specialized Barrett's programs.

Should all LGD be endoscopically eradicated?

LGD remains one of the most challenging and controversial diagnoses in BE. A substantial proportion of LGD diagnosed in the community is downgraded following expert gastrointestinal pathology review, with studies demonstrating that only approximately 15–30% of cases are ultimately confirmed as true LGD. As a result, the most important initial step in management is confirmation of the diagnosis by an expert GI pathologist. Many academic centers with dedicated Barrett's programs offer streamlined outside pathology review services, making expert reassessment readily accessible.

When there is concern that the histologic findings may represent reactive atypia rather than true dysplasia, optimization of acid suppression followed by repeat endoscopy with systematic biopsies is often appropriate. Confirming the diagnosis before embarking on long-term surveillance or endoscopic eradication therapy is critical.

Once LGD has been confirmed, management should be individualized. Although randomized data have demonstrated that endoscopic eradication therapy reduces progression to HGD and esophageal adenocarcinoma, not all patients with LGD carry the same risk of progression. In my practice, patients with focal LGD identified on a single examination are generally offered surveillance following a thorough discussion of risks and benefits. In contrast, I strongly favor endoscopic eradication therapy for patients who are appropriate procedural candidates and have features associated with higher risk, including multifocal LGD, persistent LGD on sequential examinations, long-segment BE, or visible lesions that have required endoscopic resection.

The question is therefore not whether all LGD should be eradicated, but rather which patients with confirmed LGD stand to benefit most from intervention. As our ability to risk stratify BE continues to improve, management of LGD will likely become increasingly personalized rather than uniformly procedural.

The field of BE continues to evolve at a rapid pace. Although remarkable advances in endoscopic eradication therapy have transformed outcomes for patients with dysplastic disease, important questions remain unanswered. How should we optimize screening to reduce the incidence of esophageal adenocarcinoma? Should all confirmed LGD be eradicated? Are Seattle protocol biopsies nearing obsolescence? What role should biomarkers and artificial intelligence play in risk stratification and treatment selection? As these questions are answered, the next decade of Barrett's management will likely be defined not by new ablative technologies, but by our ability to identify the right patients, select the right therapies, and deliver care in the right settings.

A structured approach to endoscopic resection of large colorectal polyps

By Gottumukkala S. Raju, MD

Successful resection of large colorectal polyps (>10 mm) depends not only on technical skill, but also on planning, lesion selection, scope control, thoughtful submucosal injection, disciplined resection, and careful postprocedural management. EMR can achieve complete and safe removal of large polyps with low rates of complications and recurrence. Although variations such as cold EMR and underwater EMR are available, I continue to favor the traditional hot EMR protocol that I have followed consistently for nearly two decades. I reserve underwater resection mainly for selected cecal lesions when scope instability worsens with luminal distension and the instrument tends to slip backward. In the remainder of this discussion, I focus on practical tips for performing traditional EMR of large polyps measuring 20–30 mm.[1-3]

Planning is part of the procedure

Large polyps are encountered in two distinct settings: during screening or surveillance colonoscopy, or during a dedicated referral for EMR. During screening colonoscopy, the endoscopist must decide in real time whether the lesion can be removed completely and safely during that session or whether resection should be deferred and planned separately. Larger lesions should not be forced into a procedure that no longer has the time, preparation, or clinical setting needed for safe therapy.

Before undertaking resection, I routinely ask about upcoming travel, including

"Without greater emphasis on screening and early detection, even the most effective eradication therapies will have only a limited impact on the overall incidence of esophageal adenocarcinoma."

international flights and cruises. Delayed bleeding remains one of the most important adverse events after EMR. A technically successful resection may still be poorly timed if the patient is about to travel far from medical care. In elderly patients, I also assess the support structure at home. Who will help if delayed bleeding or pain develops? These are not peripheral concerns; they are part of procedural safety.

If I decide to proceed with a large resection during a screening colonoscopy, I usually speak with the accompanying family member before proceeding. They should understand why the procedure may take longer and which delayed symptoms require attention after discharge.

In referred cases, I review the color photographs of the lesion with my team before the procedure and confirm that all necessary devices are ready, including the injection catheter, snares, clips, hot biopsy forceps, hemostatic forceps, a straight-fire APC catheter, the electrosurgical unit, and a functioning CO2 supply.

Scope control precedes resection

The first technical requirement is excellent endoscope control. I want the lesion positioned in the lower half of the visual field, the scope tip within a few centimeters of the target, and the ability to move, or "dance," around the lesion in a stable and controlled fashion. This requires careful insertion, repeated loop reduction, and willingness to spend time in the left colon so that the cecum is reached with a short, stable scope position, usually at about 60–70 cm. Time invested in achieving that position is rarely wasted. It allows controlled and deliberate resection of the polyp.

Lesion selection and inspection

Inspection should be deliberate. Before committing to EMR, I assess morphology, location, access, lifting characteristics, and the possibility of deep submucosal invasion. I avoid EMR when a lesion shows overt mucosal or vascular features of cancer on electronic chromoendoscopy.

I also emphasize to trainees that prior manipulation can substantially alter the difficulty of later resection. If I decide to reschedule a patient for EMR of a large lesion, I avoid biopsies and partial snaring. When tattooing is needed, I place a small tattoo distal to the lesion into a submucosal saline bleb; placing the tattoo on the opposite wall may be even better.

Submucosal injection

After inspection, I proceed with submucosal injection, most often using saline mixed with indigo carmine or methylene blue, sometimes with epinephrine in bulky sessile polyps. I have preferred saline with dye for the past 20 years. Although saline is often criticized for providing a shorter-lived lift, that has not been a practical limitation in my experience. The key is preparation. Before injection, electrosurgery should already be powered on, the foot pedal positioned, and the selected snare opened and ready for immediate use as soon as the injection catheter is withdrawn.

My team prepares two or three syringes of 10 mL saline with a few drops of indigo carmine to create a Carolina blue color. The softer saline cushion helps avoid snare slippage, unlike the concerns I sometimes hear from colleagues using more viscous lifting agents, and it often allows deeper clip closure of the defect after resection.

Injection technique matters. I ask the technician to prime the catheter fully to the tip. Once the catheter is in the field, the needle is advanced and flushed once so I can observe where the fluid settles. If fluid pools around the lesion, the lesion is in a dependent position. In larger polyps, I may reposition the patient so that bleeding, if it occurs, drains away from the resection site rather than obscuring it.

I routinely ask the technician to demonstrate injection of small aliquots of saline by gently tapping the syringe plunger to confirm that these small volumes can be delivered in a controlled fashion. Once satisfied with the technique, I usually begin injection on the cecal side of the lesion and puncture the submucosa at an acute angle rather than a right angle, thereby reducing the risk of deep or transmural injection. I then ask the technician to continue delivering small aliquots while I watch for the initial submucosal lift. Once correct submucosal positioning is confirmed, I use a dynamic injection technique, adjusting the scope tip and slowly withdrawing the needle as the cushion develops. For lesions measuring 20–30 mm, I try to achieve most of the lift with one or two injections and avoid multiple punctures.

The lift improves safety, but it also provides information. A good lift is reassuring. A poor lift raises concern for fibrosis, prior intervention, or deeper invasion.

Hot snare resection

My preference is to use either a 10-mm or 15-mm stiff braided snare, with the 10-mm snare favored for cecal lesions or technically difficult resections. I always keep the snare parallel to the wall to avoid muscle entrapment and deep mural injury.

After the technician initially ensnares the lesion, I take over control of the snare handle and closely watch the tissue as the snare is closed. I pay particular attention to the movement of tissue above and below the snare. If excessive puckering is seen below the snare, I gently release the snare while distending the colon to free the deeper layers, then close the snare again tightly, nearly to the point of a cold cut, before favoring rapid transection with minimal energy. A large submucosal lift helps maintain the cut plane away from larger deep submucosal vessels, and tight snare closure combined with rapid cutting minimizes the heat energy required. This may reduce the risk of bleeding, muscle injury, and post-EMR complications.

Resection should be deliberate. After each cut, the base and margin should be reassessed before proceeding. Small amounts of residual polyp at the edges, or in the base of tethered lesions, that cannot be captured with the snare should be removed completely with hot biopsy avulsion.

Equally important, the procedure is not over when the polyp has been removed. The defect deserves close inspection. I take multiple photographs to document a clean base and a clean resection edge. The true endpoint is confidence that no visible neoplasia remains. Only then should margin treatment with APC or snare-tip soft coagulation, defect closure with clips, and postprocedural planning follow.

As part of my protocol, I use APC to treat the resection edge, followed by deep clip approximation and closure of the defect. Typically, I take 20–30 images as part of my documentation of large EMRs.

Large colorectal polyp resection is best understood as a discipline of planning, control, judgment, and completeness. That is the framework I use in teaching, and I believe it leads to safer and more durable outcomes. I hope you will also find my YouTube resource dedicated to EMR techniques helpful (search my name on YouTube and find the EMR Channel playlist).

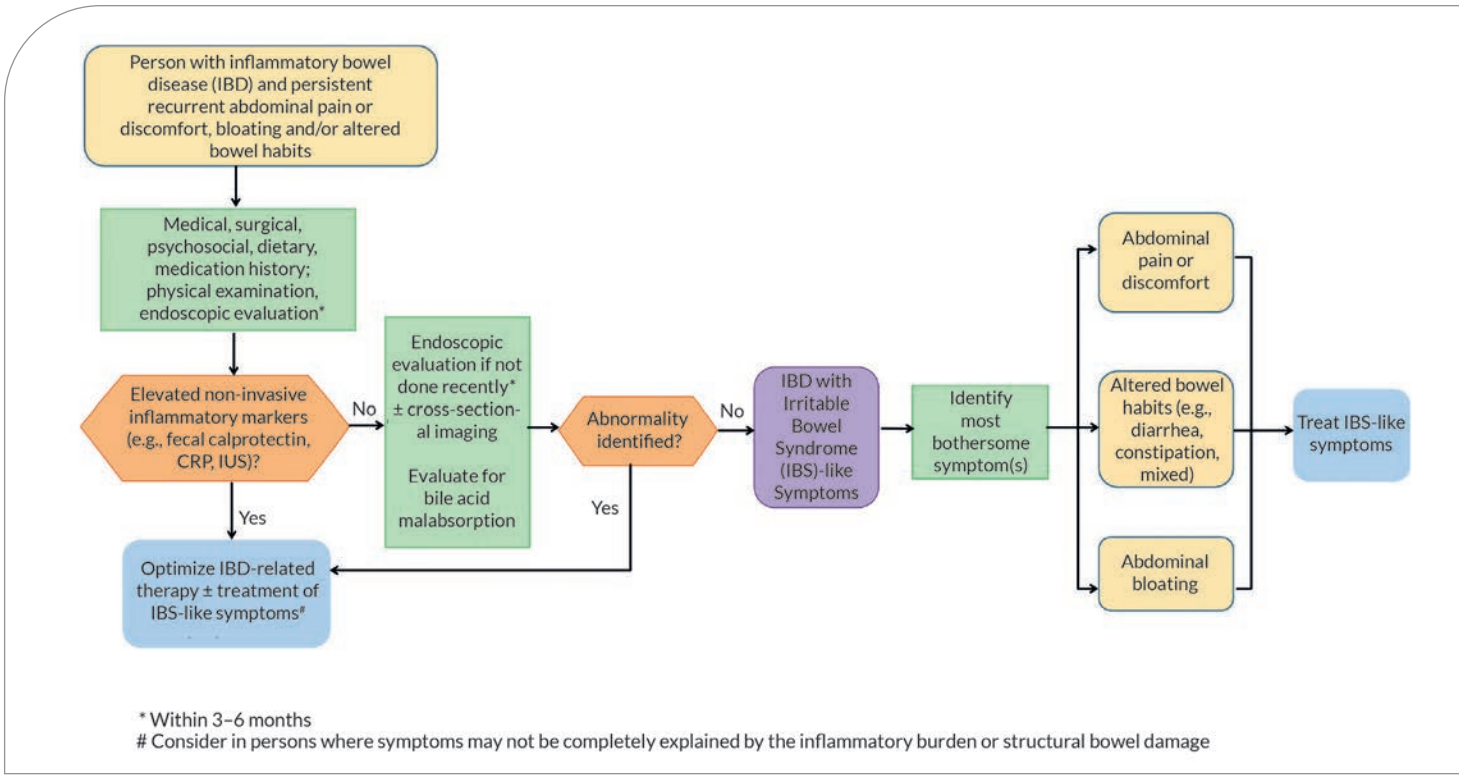
References

1. *Raju GS, Lum PJ, Ross WA, et al. Outcome of EMR as an alternative to surgery in patients with complex colon polyps. Gastrointest Endosc 2016; 84(2):315-25.*
2. *Raju GS, Lum P, Abu-Sbeih H, et al. Cap-fitted endoscopic mucosal resection of ≥20 mm colon flat lesions followed by argon plasma coagulation results in a low adenoma recurrence rate. Endosc Int Open 2020; 8(2):E115-E121.*
3. *Ferlitsch M, Hassan C, Bisschops R, et al. Colorectal polypectomy and endoscopic mucosal resection: European Society of Gastrointestinal Endoscopy (ESGE) Guideline – Update 2024. Endoscopy 2024; 56:516-545.*

Experts offer roadmap for IBS-like symptoms in IBD remission

New Rome Foundation/ IOIBD guidance defines "IBD with IBS-like symptoms" and recommends mechanism-based care over reflexive therapy escalation.

By Olivia Anderson



Diagnostic algorithm for IBD with IBS-like symptoms. IUS, intestinal ultrasound. Figure courtesy of *Gastroenterology*.

A new joint consensus statement from the Rome Foundation and the International Organization for the Study of Inflammatory Bowel Disease (IOIBD), published in *Gastroenterology*, offers clinicians a framework for managing patients with inflammatory bowel disease (IBD) who continue to experience abdominal pain, bloating, diarrhea, constipation or mixed bowel habits despite little or no objective evidence of active inflammation — a pattern the panel termed "IBD with irritable bowel syndrome (IBS)–like symptoms."

The recommendations address a clinical scenario the authors estimate affects roughly 20% to 30% of patients with IBD in remission, a group often subjected to repeated testing or unnecessary escalation of immunosuppressive therapy when persistent symptoms are presumed to reflect ongoing inflammation.

"This consensus study is important because it addresses a common but historically under-recognized problem in IBD care: many patients continue to experience abdominal pain, bloating, diarrhea, constipation or mixed bowel habits despite having little or no objective evidence of active inflammation. These symptoms are burdensome for patients and may lead to diagnostic uncertainty, repeated testing and sometimes unnecessary escalation of IBD-directed therapy," said senior author Lin Chang, MD, of the David Geffen School of Medicine at UCLA, Los Angeles, who told *GI & Hepatology News* that the framework is meant to give clinicians a positive, mechanism-informed approach rather than a purely exclusionary one.

Using a modified RAND/ UCLA Appropriateness Method, a multidisciplinary panel of 13 international experts reviewed available evidence and voted on candidate statements covering terminology, diagnosis, dietary therapies, medications and brain-gut behavioral therapies. Of 105 statements that proceeded to final scoring, 86 were rated appropriate, 16 uncertain and three inappropriate.

A central recommendation was adoption of the term "IBD with IBS-like symptoms" to describe patients with Crohn's disease or ulcerative colitis whose symptoms are disproportionate to or incompletely explained by objective inflammation or structural bowel damage.

The panel proposed distinct diagnostic frameworks for clinical care and research. In routine practice, Rome clinical criteria combined with objective exclusion of active inflammation — through biomarkers, endoscopy, histology or imaging as appropriate — were considered sufficient. For research, the panel endorsed specific remission thresholds to enroll homogeneous trial populations, including a Simple Endoscopic Score for Crohn's disease below 4, a Mayo endoscopic subscore of 0 or 1 in ulcerative colitis, and fecal calprotectin under 150 µg/g.

"The key takeaway for clinicians is that persistent gastrointestinal symptoms in a patient with IBD should not automatically be assumed to reflect active inflammatory disease," Dr. Chang said.

For treatment, the panel endorsed psyllium supplementation in patients without clinically relevant strictures and a short-term low fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAP) diet. Targeted medications were considered appropriate when matched to the predominant symptom: antidiarrheals or laxatives for bowel symptoms, with 5-HT3 antagonists in diarrhea-predominant patients and secretagogues or 5-HT4 agonists in those with constipation, provided no stricture is present. Tricyclic antidepressants received the panel's strongest support among neuromodulators; selective serotonin reuptake inhibitors and serotonin and norepinephrine reuptake inhibitors may also be appropriate depending on stool pattern and comorbid mood or anxiety symptoms. Antispasmodics and peppermint oil were also rated appropriate.

Brain-gut behavioral therapies, including gastrointestinal-focused cognitive behavioral therapy and gut-directed hypnotherapy, received the panel's strongest endorsement, with unanimous appropriate ratings. The authors argued these approaches should be integrated earlier in management rather than reserved as a last-line option.

"These recommendations provide a practical framework for patient care by emphasizing a positive, mechanism-informed approach rather than a purely exclusionary one," Dr. Chang said. "Earlier recognition of this phenotype may improve quality of life, reduce unnecessary treatment escalation and help patients receive therapies that are better matched to the mechanisms driving their symptoms."

Lin Chang, MD

The authors acknowledged several limitations, including heterogeneity in remission definitions across the existing literature, relatively few large randomized controlled trials specifically in patients with IBD and IBS-like symptoms, and limited mechanistic phenotyping. Many recommendations therefore relied partly on expert consensus and extrapolation from the IBS literature. The panel was also predominantly based in North America, which the authors said may limit generalizability to other regions. Patients were not included in the formal consensus process, though four individuals with IBD reviewed the near-final manuscript.

Dr. Chang and other panel members reported consulting, speaker or research relationships with pharmaceutical and digital health companies. Full disclosures are available with the published paper. The Rome Foundation provided panelist honoraria.

Clinical practice update: Prioritizing fidaxomicin for *C. difficile* in IBD

Continued From Page 1

The update was commissioned by the AGA Institute Clinical Practice Updates Committee and based on a review of published studies, systematic reviews, guidelines, and expert opinion rather than a formal systematic review.

The authors recommend testing all patients with IBD who develop new or worsening diarrhea for CDI, especially those with disease affecting the colon. Patients with ileostomies or ileal pouch-anal anastomoses should also be tested if stool output increases, because CDI has been reported in 10% to 18% of patients with pouch disorders.

People with IBD are up to eight times more likely to develop CDI than the general population, even without recent antibiotic use, the authors noted. They also face a much higher risk of recurrence, with a 33% greater chance of recurrent infection compared with people without IBD.

To help distinguish active infection from harmless colonization, the update recommends using a multistep, toxin-based testing approach instead of relying on polymerase chain reaction testing alone. The preferred method begins with glutamate dehydrogenase or nucleic acid amplification testing, followed by a toxin enzyme immunoassay to confirm the diagnosis. A positive polymerase chain reaction test combined with a negative toxin test may suggest colonization rather than an active infection, the authors said.

For treatment, fidaxomicin was favored over vancomycin because of lower recurrence rates and reduced disruption of the intestinal microbiome. Cure rates with fidaxomicin in retrospective IBD studies were reported at about 80% to 90%.

The review also cited a phase IIIb/IV pharmacokinetic study showing minimal systemic absorption of fidaxomicin in patients with IBD and high stool drug concentrations. In another randomized trial involving older hospitalized patients without IBD, extended-pulsed fidaxomicin achieved sustained clinical cure in 70% of patients compared with 59% for vancomycin.

Vancomycin remains an acceptable alternative when fidaxomicin is unavailable or cost-prohibitive, but metronidazole should no longer be used because of high resistance and treatment failure rates, according to the update. The authors also highlighted evidence supporting longer vancomycin regimens lasting 21 to 42 days in patients with IBD to reduce recurrence risk.

The update's authors advise physicians to strongly consider hospitalization for patients with IBD and CDI who develop severe colitis, systemic toxicity, or sepsis. Warning signs include more than six bowel movements daily, severe abdominal pain, leukocytosis, hemodynamic instability, or toxic megacolon. CDI in patients with IBD has been associated with increased in-hospital mortality.

Dr. Khanna and colleagues also discussed immunosuppressive therapy, noting that no specific class of biologic or small-molecule drugs has been linked to a higher risk for CDI. Physicians should choose therapies based on the patient's IBD treatment needs rather than concerns about increased CDI risk. Retrospective studies also suggested that continuing or intensifying immunosuppressive therapy during CDI treatment does not worsen infection outcomes when clinically appropriate.

If symptoms continue after 48 to 72 hours of CDI treatment, the update recommends endoscopic evaluation to look for ongoing IBD activity or other possible causes, such as cytomegalovirus infection. The authors also noted that pseudomembranes are uncommon in patients with both IBD and CDI, which can make diagnosis more difficult.

Among the most notable recommendations was strong support for microbiome-based therapies after recurrent CDI. The authors advised offering fecal microbiota transplantation or US Food and Drug Administration-approved microbiota restoration products after at least one recurrence.

Data cited in the review showed fecal microbiota transplantation achieved 90% efficacy at eight weeks in one prospective trial involving patients with IBD and recurrent CDI. Another phase III open-label study of fecal microbiota, live-jslm reported a 79% treatment success rate at eight weeks and a sustained clinical response rate of 91% at six months among patients with IBD.

The authors do not recommend probiotics for preventing initial or recurrent CDI because evidence of benefit is limited and they may pose risks, including bloodstream infections, in immunocompromised patients.

The review noted that oral vancomycin prophylaxis may be considered for secondary prevention in high-risk patients with prior CDI who require systemic antibiotics, although supporting evidence remains limited.

According to Dr. Khanna, he and his coauthors spent considerable time discussing how to manage immunosuppressive therapy during active CDI. "Clinicians are appropriately concerned about worsening CDI, but uncontrolled IBD can also lead to hospitalization, surgery, and other poor outcomes," he said. "The evidence base is retrospective, and randomized trials are lacking."

Another area that required careful discussion, Dr. Khanna said, was microbiome-based therapy in IBD, particularly as the field has moved from conventional FMT toward FDA-approved donor-derived therapies. "We now have more options, but the data are uneven across products and across IBD subgroups," he said. "We also spent time on oral vancomycin prophylaxis because it is used in real-world practice, but the evidence remains low quality and must be weighed against concerns such as vancomycin-resistant *Enterococcus* carriage."

Dr. Khanna reported research support from Vedanta Biosciences and consulting relationships with several pharmaceutical companies. Jessica R. Allegretti, MD, MPH, Jana G. Hashash, MD, MS, and Paul Feuerstadt, MD, reported advisory, consulting, or speaking relationships with multiple industry companies, including Ferring Pharmaceuticals, Janssen Pharmaceuticals, Takeda Pharmaceuticals, and others.

GI & Hepatology News invited review author, Sahil Khanna, MBBS, MS, a consultant in the division of gastroenterology and hepatology in the department of internal medicine at Mayo Clinic, Rochester, Minnesota, to elaborate on the update.

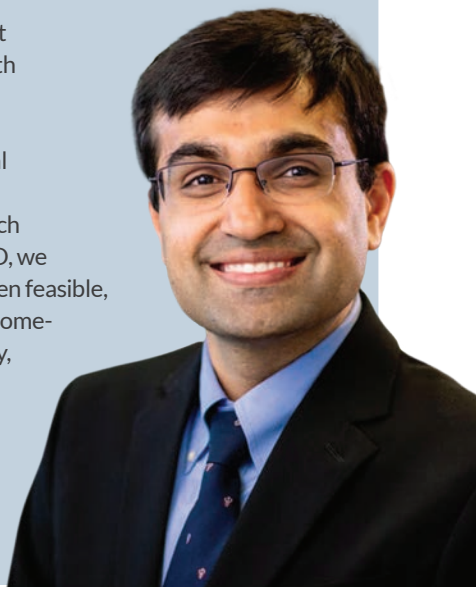
What are the top practice advice statements from this review?

Dr. Khanna: The first is the paired message that best practice advice 1 and 2 have. Any IBD patient with new or worsening diarrhea should be tested for CDI, with a multistep toxin-based strategy. This also applies to patients with an ileal pouch or end ileostomy who develop worsening output.

The second is best practice advice 4: for an initial episode of CDI in IBD, fidaxomicin should be preferred when feasible, with oral vancomycin as an appropriate alternative if fidaxomicin is not available or is cost prohibitive. Metronidazole should not be used.

The third is best practice advice 7 and 10 together. We should not reflexively undertreat IBD because CDI is present; concurrent treatment of IBD is often necessary, including continuation of needed immunosuppressive therapies. At the same time, patients with IBD who have at least one CDI recurrence should be offered microbiome-based therapy to prevent future infection. Those two statements reflect the central theme of the update: treat CDI effectively, and do not lose control of the underlying IBD.

How will this update change your clinical practice?



Dr. Khanna: We are more deliberate about diagnostic stewardship: in an IBD patient with worsening diarrhea, a positive PCR alone is not enough to assume active CDI. A toxin-based multistep approach and careful clinical interpretation are essential.

It also reinforces a more proactive approach to recurrence prevention. In patients with IBD, we consider fidaxomicin for an initial episode when feasible, and have a lower threshold to discuss microbiome-based therapy after a recurrence. Importantly, we do not reflexively stop needed IBD therapy. The better approach is to treat CDI promptly, reassess early, and escalate IBD evaluation or therapy when the patient is not improving within 48 to 72 hours.

A lifetime of asking the right questions

Hashem El-Serag, MD, MPH, AGAF, reflects on the Julius Friedenwald Medal, the evolution of his research, and the careers he has helped build.

When Hashem El-Serag, MD, MPH, AGAF, became the 114th president of the AGA in 2019, he could not have known that the back half of his term would be accompanied by a global pandemic. He led the organization through the first uncertain months of COVID-19 — and the experience, he says now, sharpened a conviction that would direct the years to come. "The pandemic reinforced for me how important data, adaptability, and collaboration are in medicine," he says. "I became increasingly interested in how health systems can continuously learn and improve in real time."

Now, AGA has awarded Dr. El-Serag its highest honor: the 2026 Julius Friedenwald Medal, recognizing a lifetime of contributions to gastroenterology. For the many members who knew him as a past president, journal editor, and one of the field's most prolific liver-cancer researchers, the medal is an occasion to catch up and find that Dr. El-Serag has spent the interval building something many might not expect.

Building something unexpected

He remains the Margaret M. and Albert B. Alkek Chair of the Department of Medicine at Baylor College of Medicine, a post he has held since 2017 and one few gastroenterologists ever occupy. He has published more than 680 papers over his career. But in 2023, he took on a new title — Vice President for the Learning Health System at Baylor — and launched an initiative built around the idea that every patient encounter should make care better for the next patient.

"A learning health system creates infrastructure where clinical care, data, research, and quality improvement are integrated rather than separated," he explains. For a practicing gastroenterologist or hepatologist, he says, that means smarter decision support, more personalized care, and faster translation of evidence into practice, not to mention the ever-increasing ability to harness data, analytics, and AI to make discoveries in the course of everyday care.

The turn surprises even him. When asked what he did not see coming, Dr. El-Serag points to how far his work has traveled from where it began. "Probably how much my work has expanded beyond traditional epidemiology into digital medicine, AI, and health system transformation," he says. "I still think like an epidemiologist and clinician, but now I spend much more time thinking about how to translate insights into everyday clinical care."

Toward precision prevention

That instinct of translation over discovery alone runs through his science, too, which has evolved over the years. For decades, Dr. El-Serag's name was synonymous with the epidemiology of hepatocellular carcinoma.

"MASLD is now becoming the dominant driver of liver cancer," he says, describing a field pivoting away from viral hepatitis, a low-prevalence but high-risk condition, toward metabolic disease, which is enormously common but carries lower individual risk. That change means much of his current work, he says, focuses on precision prevention: "identifying who is truly at highest risk, detecting cancer earlier, and understanding why some patients progress while others do not."

He is quick to note where the field is already succeeding. Colorectal cancer screening and polyp removal have prevented countless cancers; better recognition and treatment of H. pylori has shown that gastric cancer can be headed off when its cause is understood and targeted; and curative hepatitis C therapies have already bent the curve of liver cancer. What excites him most now is the growing ability to tell, in advance, who is genuinely at risk.

"Advances in biomarkers, genomics, AI, and risk stratification are moving us toward more precise prevention and earlier detection," he says, predicting that the coming decade will trade one-size-fits-all screening for approaches that find high-risk patients early and intervene before cancer takes hold.

Seen from his current vantage, even his earliest work points toward what he is doing today. "Early in my career, we were trying to answer some very basic questions: Who gets liver cancer? Why are rates increasing? Which patients are at highest risk?" he recalls. That work matured into tools to predict risk and detect disease sooner. "Today, whether through precision prevention, digital medicine, or learning health systems, I'm still pursuing the same goal," he says. "The difference is that I'm now focused not only on generating knowledge, but on building the systems that can reliably translate that knowledge into better care for every patient."

A matter of stewardship

If there is a constant beyond the science, it is the people he has trained. Dr. El-Serag has mentored a generation of investigators. His Baylor colleague Fasiha Kanwal, MD, has credited him with the time and attention he devoted to her own career, saying "It was because of his encouragement that I (successfully) applied for the editorship of Clinical GastroenterologyandHepatology."

Dr. El-Serag counts his mentees' successes as a source of pride. "What makes me proudest is seeing former trainees become independent leaders with their own ideas and voices," he says. His philosophy has matured over the years into something closer to stewardship. "Mentorship is less about directing people and more about creating opportunities, building confidence, and helping people navigate setbacks while staying true to themselves."

Ask him to name the single thread tying it all together, and he returns, characteristically, to the patient. "The thread has been a commitment to asking clinically meaningful questions that can improve patients' lives and finding the right tools to answer them." It is also the advice he offers anyone hoping to build a career like his: stay curious, be persistent, collaborate widely, choose problems that truly matter to patients, and keep pace with technology. "Careers are rarely linear," he says, "but meaningful work compounds over time."

It is a fitting note for a Julius Friedenwald Medalist who, by every indication, is not finished contributing meaningful work to the field.

Lightning round

Tell us about a mentor and what you learned from them.

My father. He taught me that education and hard work open doors, but character determines what you do once you walk through them.

Best piece of advice you've given or received?

"Be useful." If you focus on helping others succeed, good things follow.

What advice would you give to your younger self?

Take more risks. Most opportunities come disguised as uncertainty. Trust that your background is a strength, not a limitation.

Favorite quote or words to live by?

A Palestinian saying "The olive tree grows slowly, but it lives for generations." It reminds me that the most meaningful work takes time and outlasts us.

Nigel

Next-gen Intelligence for GI & Liver

Your on-call, trusted GI colleague

- The AI point-of-care assistant built specifically for the realities of GI practice—trained on GI and liver guidelines and vetted by GI and liver experts.

Sign up today for a **14-day free trial**

Make faster, more confident decisions at the point of care—no commitment required.

Powered by

aga