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MEDSCAPE COMPOSITE; GETTY IMAGES

Is AI Use Causing Endoscopists to Lose Their Skills?

BY MARILYNN LARKIN

Routine use of artificial intelligence (AI) may lead to a loss of skills among clinicians who perform colonoscopies, thereby affecting patient outcomes, a large observational study suggested.

"The extent and consistency of the adenoma detection rate [ADR] drop after long-term AI use were not expected," study authors Krzysztof Budzyń, MD, and Marcin Romańczyk, MD, of the Academy of Silesia, Katowice, Poland, told *GI & Hepatology News*. "We thought there might be a small effect, but the 6% absolute decrease — observed in several

centers and among most endoscopists — points to a genuine change in behavior. This was especially notable because all participants were very experienced, with more than 2000 colonoscopies each."

Another unexpected result, they said, "was that the decrease was stronger in centers with higher starting ADRs and in certain patient groups, such as women under 60. We had assumed experienced clinicians would be less affected, but our results show that even highly skilled practitioners can be influenced."

The study was published online in *The*

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MASLD/MASH Global Guideline Discordance

Moving Toward Clarity

BY WILL PASS

MDedge News

FROM GASTROENTEROLOGY

Global consensus recommendations were recently published for metabolic dysfunction-associated steatotic liver disease (MASLD) and metabolic dysfunction-associated steatohepatitis (MASH).

These recommendations aim to boost guideline adherence and disease awareness, which have lagged despite a surge of national and international guidance in recent years, lead author Zobair M. Younossi, MD, of the Global NASH/MASH Council, Washington, DC, and colleagues, reported.

"Although these documents are similar in many ways, there are important differences in their recommendations, which have created some confusion within the field," the panel wrote in *Gastroenterology* (2025 Apr. doi: 10.1053/j.gastro.2025.02.044). "Areas of discordance among guidelines can be partly responsible for their low rate of implementation and the suboptimal awareness about this liver disease. Furthermore, these guidelines can be long and complex, making it challenging for busy clinicians to access the appropriate information quickly and efficiently."

To address these gaps, more than 40 experts from

See Guideline • page 21



Dr. Younossi

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LETTER FROM THE EDITOR

Celebrating VA Physicians in Gastroenterology

Last month, I had the privilege of joining more than 100 physician colleagues in Washington, DC, for AGA Advocacy Day. While standing amidst the majesty of the Capital, I found myself deeply appreciative for those who dedicate their time and energy to public service. Many of these dedicated federal workers choose to be in DC because of a sincere belief in their mission.

Among these mission-driven public servants are federal employees who work in the Department of Veterans Affairs (VA). As a member of this group, I come to work energized by the mission to care for those who have served in our military. In my clinical practice, I am reminded regularly of the sacrifices of veterans and their families. This month, and especially on Veterans Day, I hope we will take a moment to express gratitude to veterans for their service to our country.

This month is also a timely opportunity to recognize the immense contributions of VA physicians to the field of gastroenterology. Many young gastroenterologists may not know that it was the landmark VA Cooperative Study #380, led by Dr. David Lieberman (Portland VA) that helped push Medicare to cover reimbursement for screening colonoscopy. Today, one of the most important ongoing studies in our field — VA Cooperative Study #577 — continues the VA tradition of high-impact health services research. Launched in 2012, the study has enrolled 50,000 veterans to compare FIT and colonoscopy. It is led by Dr. Jason Dominitz (Seattle VA) and Dr.



Dr. Gellad

'It was the landmark VA Cooperative Study #380, led by Dr. David Lieberman (Portland VA) that helped push Medicare to cover reimbursement for screening colonoscopy.'

Doug Robertson (White River Junction VA).

Beyond research, VA gastroenterologists play a critical role in training the next generation of clinicians. Over 700 gastroenterologists count the VA as a clinical home, making it the largest GI group practice in the country. Many of us — myself included — were trained or mentored by VA physicians whose dedication to service and science has

shaped our careers and the field at large.

This month's issue of *GI & Hepatology News* has stories about other important contributions to our field. The stories and perspective pieces on artificial intelligence are particularly poignant given the announcement last month on the awarding of the Nobel Prize in economics to researchers who study "creative destruction," the way in which one technological innovation renders others obsolete. Perhaps this award offers another reason to reemphasize and embrace the "art" of medicine. ■

The views expressed here are my own and do not necessarily reflect the official policy or position of the US Department of Veterans Affairs or the United States Government.

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Physician Compensation: Gains Small, Gaps Large

BY DIANA SWIFT

MDedge News

Few would deny that physicians today face many challenges: a growing and aging patient population, personnel shortages, mounting paperwork, regulatory and reimbursement pressures, and personal burnout. Collectively these could work to worsen patient access to care. Yet despite these headwinds, Doximity's survey-based *Physician Compensation Report 2025* found that more than three quarters of physicians polled would still choose to enter their profession.

"Physician burnout isn't new. It's been a persistent problem over the past decade," said Amit Phull, MD, chief clinical experience officer at Doximity. "In a Doximity poll of nearly 2000 physicians conducted in May 2025, 85% reported they feel overworked, up from 73% just 4 years ago. As a result, about 68% of physicians said they are looking for an employment change or considering early retirement."

Greater awareness of contemporary trends may help physicians make more-informed career decisions and more effectively advocate for both themselves and the patients who need them, the report's authors stated.

Compensation Lag May Impact Care

A small overall average compensation increase of 3.7% from 2023 to 2024 — a slightly lower increase than the 5.9% in the prior year — has done little to close existing pay gaps across the profession.

In 2024, average compensation for men rose 5.7% over 2023, compared with just 1.7% for women — widening the gender pay gap to 26% vs 23% in 2023 and matching the gender gap seen in 2022. And significant disparities persist between physicians caring for adults vs children. In some specialties, the pay gap between pediatric and adult specialists exceeded 80% despite practitioners' similar levels of training and clinical complexity.

Nearly 60% of respondents said

reimbursement pressures could affect their ability to serve Medicare or Medicaid patients in the next year. Additionally, 81% reported that reimbursement policies have significantly contributed to the decline of private practices, and more than a third said they could stifle practice growth with compensation concerns forcing them to delay or cancel hiring or expansion plans. Almost 90% reported an adverse impact from physician shortages, with more citing an inability or limited ability to accept new patients.

Narrowing the Gap for Primary Care?

Over the past 3 years, the percent pay gap between primary care and specialist medicine declined mod-

'In a Doximity poll of nearly 2000 physicians conducted in May 2025, 85% reported they feel overworked, up from 73% just 4 years ago. As a result, about 68% of physicians said they are looking for an employment change or considering early retirement.'

estly, the report noted. In 2024, surgical specialists earned 87% more than primary care physicians, down from 100% in 2022. Non-surgical specialists, emergency medicine physicians, and Ob/Gyns also continued to earn significantly more than primary care physicians, though the gaps have narrowed slightly.

"These trends come at a time when primary care remains critical to meeting high patient demand, especially amid ongoing physician shortages," the report stated. "Primary care physicians continue to earn considerably less than many of their medical colleagues despite their essential role in the health-care system."

Significantly, many physicians believe that current reimbursement policies have contributed to the steady decline of independent practices in their fields. According to the American Medical Association, the share of physicians working in private practices dropped by 18 percentage points from 60.1% to 42.2% from 2012 to 2024.

The Specialties

This year's review found that among 20 specialties, the highest average

compensation occurred in surgical and procedural specialties, while the lowest paid were, as mentioned, pediatric medicine and primary care. Pediatric nephrology saw the largest average compensation growth in 2024 at 15.6%, yet compensation still lagged behind adult nephrology with a 40% pay gap.

By medical discipline, gastroenterologists ranked 13th overall in average annual compensation. Gastroenterology remained in the top 20 compensated specialties, with average annual compensation of \$537,870 — an increase from \$514,208 in 2024, representing a 4.5% growth rate over 2023.

Neurosurgeons topped the list at \$749,140, followed by thoracic surgeons at \$689,969 and orthopedic surgeons at \$679,517.

The three lowest-paid branches were all pediatric: endocrinology at \$230,426, rheumatology at \$231,574, and infectious diseases at \$248,322. Pediatric gastroenterology paid somewhat higher at \$298,457.

The largest disparities were seen in hematology and oncology, where adult specialists earned 93% more than their pediatric peers. Pediatric gastroenterology showed an 80% pay gap. There were also substantial pay differences across cardiology, pulmonology, and rheumatology. "These gaps appear to reflect a systemic lag in pay for pediatric specialty care, even as demand for pediatric subspecialists continues to rise," the report stated.

Practice Setting and Location

Where a doctor practices impacts the bottom line, too: In 2024 the highest compensation reported for a metro area was in Rochester, Minnesota (the Mayo Clinic effect?), at \$495,532, while the lowest reported was in Durham–Chapel Hill, North Carolina, at \$368,782. St. Louis (\$484,883) and Los Angeles (\$470,198) were 2nd and 3rd at the top of the list. Rochester also emerged as best for annual compensation after cost-of-living adjustment, while Boston occupied the bottom rung.

The Gender Effect

With a women's pay increase in 2024 of just 1.7%, the gender gap returned to its 2022-level disparity

of 26%, with women physicians earning an average of \$120,917 less than men after adjusting for specialty, location, and years of experience.

Doximity's analysis of data from 2014 to 2019 estimated that on average men make at least \$2 million more than women over the course of a 40-year career. This gap is often attributed to the fewer hours worked by female physician with their generally heavier familial responsibilities, "but Doximity's gender wage gap analysis controls for the number of hours worked and career stage, along with specialty, work type, employment status, region, and credentials," Phull said.

Women physicians had lower average earnings than men physicians across all specialties, a trend consistent with prior years. As a percentage of pay, the largest gender disparity was seen in pediatric nephrology (16.5%), a specialty that in fact saw the largest annual growth in physician pay. Neurosurgery had the smallest gender gap at 11.3%, while infectious diseases came in at 11.5% and oncology at 12%.

According to Maria T. Abreu, MD, AGAF, executive director of the F. Widjaja Inflammatory Bowel Disease Institute at Cedars-Sinai Medical Center in Los Angeles and past president of AGA, the remuneration gender gap in gastroenterology is being taken seriously by AGA and several other GI societies. "The discrepancies in pay start from the beginning and therefore are magnified over time. We are helping to empower women to negotiate better as well as to gather data on the roots of inequity, she told *GI & Hepatology News*.

The AGA Women's Committee has developed a project to support the advancement of women in gastroenterology, Abreu said. The initiative, which includes the AGA Gender Equity Framework and Gender Equity Road Map, focuses attention on disparities in the workplace and promotes opportunities for women's leadership, career advancement, mentorship, and physician health and wellness, she added.

Are these disparities due mainly to the "motherhood penalty," with career interruption and time lost to maternity leave and fewer hours

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Dr. Phull

Medicolegal Concerns in Private GI Practice

BY DIANA SWIFT

FROM CLINICAL GASTROENTEROLOGY
AND HEPATOLOGY

The need for gastroenterology (GI) services is on the rise in the US, with growing rates of colonoscopy, earlier-onset colon cancer, and increased inflammatory bowel disease. This rise is taking place in the context of a changing regulatory landscape.

With expanded GI practice opportunities comes the need to raise awareness of medicolegal issues, and to that end, a recent educational practice management update was published in *Clinical Gastroenterology and Hepatology* (2025 Apr. doi: 10.1016/j.cgh.2025.04.002) by Erin Smith Aebel, JD, a health law specialist with Trenam Law in Tampa, Florida.

“Healthcare regulation continues to evolve and it’s a complicated area,” Aebel told *GI & Hepatology News*. “Some physician investors in healthcare ventures see the potential profits but are not fully aware of how a physician’s license and livelihood could be affected by noncompliance.”

Aebel has seen some medical business owners and institutions pushing physicians to their limits in order to maximize profits. “They’re failing to allow them the meaningful things that allow for a long-term

productive and successful practice that provides great patient care,” she said. “A current issue I’m dealing with is employers’ taking away physicians’ administrative time and not respecting the work that is necessary for the physician to be efficient and provide great care,” she said. “If too many physicians get squeezed in this manner, they will eventually walk away from big employers to something they can better control.”

Aebel noted that private-equity acquisitions of medical practices — a fast-growing US trend — are often targeted at quick profits and quick exits, which can be inconsistent with quality long-term patient care. “A question to be asked by physicians and patients is who is benefiting from this transaction?” she said. “Sometimes retired physicians can see a great benefit in private equity, but newer physicians can get tied up with a strong non-compete agreement. The best deals are ones that try to find wins for all involved, including patients.”

Many independent gastroenterologists focusing on the demands of daily practice are less aware than they should be of the legal and

business administration sides. “I often get clients who come to me complaining about their contracts after they’ve signed them. I don’t have leverage to do as much for them,” she admitted.

From a business standpoint, gastroenterologists need to understand where they can negotiate for financial gain and control. These could relate

‘Some physician investors in healthcare ventures see the potential profits but are not fully aware of how a physician’s license and livelihood could be affected by noncompliance.’



Erin Smith Aebel

to compensation and bonuses, as well as opportunities to invest in the practice, the practice management company, and possibly real estate or ambulatory surgery centers (ASCs).

Aebel’s overarching messages to gastroenterologists are as follows: “Be aware. Learn basic health law. Read your contracts before you sign them. And invest in good counsel before you sign agreements,” she said. “In addition, GI practitioners need to have a working knowledge of the federal Anti-Kickback [AKB] Statute and the federal Stark Law and how they could be commonly

applied in their practices.”

These are designed to protect government-funded patient care from monetary influence. The False Claims Act is another federal buttress against fraud and abuse, she said.

Update Details

Though not intended to be legal advice, Aebel’s update touches on several important medicolegal areas.

• Stark Law on Self-Referrals

Gastroenterologists should be familiar with this federal law, a self-referral civil penalty statute regulating how physicians can pay themselves in practices that provide designated health services covered by federal healthcare programs such as Medicare or Medicaid.

For a Stark penalty to apply, there must be a physician referral to an entity (eg, lab, hospital, nutrition service, or physiotherapy or radiotherapy center) in which the physician or a close family member has a financial interest.

• Ambulatory Surgery Centers

Another common area vulnerable to federal fraud and abuse regulation is investment in ASCs. “Generally speaking,” Aebel wrote, “it is a felony to pay or be paid anything of value for Medicare or Medicaid business referrals.” This provision relates to the general restriction of the federal AKB Statute.

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worked owing to the greater parenting burden of physician mothers? Or are they due to the systemic effects of gender expectations around compensation?

Hours worked appear to be a factor. A 2017 study of dual-physician couples found that among childless respondents men worked an average of 57 hours and women 52 hours weekly. Compared with childless men, men with children worked similar numbers of hours weekly. However, compared with childless physicians, mothers worked significantly fewer hours — roughly 40-43 hours weekly — depending on the age of their youngest child.

Abreu pushed back on this stereotype. “Most women physicians, including gastroenterologists, do not take the maternity leave they are allowed because they are concerned about burdening their colleagues,” she said. “Thus, it is

unlikely to explain the disparities. Many systemic issues remain challenging, but we want women to be empowered to advocate for themselves at the time of hiring and along the arc of their career paths.”



Dr. Abreu

In Abreu’s view, having women assume more leadership roles in the field of gastroenterology provides an opportunity to focus on reducing the disparities in compensation.

Regardless of gender, among all physicians surveyed, autonomy and work-life balance appeared to be a

high priority: 77% of doctors said they would be willing to accept or have already accepted lower pay for more autonomy or work-life balance. “Overwork appears to be especially prevalent among wom-

‘Most women physicians, including gastroenterologists, do not take the maternity leave they are allowed because they are concerned about burdening their colleagues. Thus, it is unlikely to explain the disparities. Many systemic issues remain challenging, but we want women to be empowered to advocate for themselves at the time of hiring and along the arc of their career paths.’

en physicians,” said Phull, noting that 91% of women respondents reported being overworked compared with 80% of men. “This overwork has compelled 74% of women to consider making a career change, compared with 62% of men.” Differences emerged among specialties as well: 90% of primary

care physicians said they are overworked compared with 84% of surgeons and 83% of non-surgical specialists.

As for the future, the report raised an important question. Are we relying too heavily on physicians rather than addressing the underlying need for policies that support a healthier, more sustainable future for all? “Building that future will take more than physician dedication alone,” Phull said. “It will require meaningful

collaboration across the entire healthcare ecosystem — including health systems, hospitals, payors, and policymakers. And physicians must not only have a voice in shaping the path forward; they must have a seat at the table.”

Abreu reported no conflicts of interest in regard to her comments. ■

Another View on Private Equity in GI

BY GEORGE DICKSTEIN, MD, AGAF

The article on the opposing page cautions physicians against partnering with private-equity (PE) firms, warning that they target “quick profits and quick exits, which can be inconsistent with quality long-term patient care.”

But several recent studies — and my own experience — show that affiliating with a PE-backed management services organization can empower physician practices to deliver high-quality care at lower cost than other practice affiliation models.

A 2024 study conducted by Avalere Health found that per-beneficiary Medicare expenditures for physicians who shifted from an unaffiliated practice model to a PE-affiliated model declined by \$963 in

the 12 months following the transition. By contrast, per-beneficiary Medicare expenditures for physicians who shifted from an unaffiliated model to a hospital-affiliated one increased more than \$1300.



Dr. Dickstein

‘Partnering with a PE-backed management services organization is one of the most effective ways for a physician practice to ... continue offering patients affordable, high-quality care.’

A 2025 peer-reviewed study published in *Journal of Market Access & Health Policy* found that physicians affiliated with private equity were far more likely to perform common

high-volume procedures in the lowest-cost site of care — an ambulatory surgery center or medical office — than in higher-cost hospital outpatient departments (HOPD). Physicians affiliated with hospitals were

far more likely to perform procedures in HOPDs.

Partnering with a PE-backed management services organization has enabled my practice to afford ad-

vanced technologies we never could have deployed on our own. Those technologies have helped improve our polyp detection rates, reduce the incidence of colon cancer, and

more efficiently care for patients with ulcerative colitis. We also now provide patients seamless access to digital platforms that help them better manage chronic conditions.

Independent medical practice is under duress. Partnering with a PE-backed management services organization is one of the most effective ways for a physician practice to retain its independence — and continue offering patients affordable, high-quality care. ■

Dr. Dickstein is senior vice president of clinical affairs, Massachusetts, Gastro Health, and chairperson of Gastro Health’s Physician Leadership Council. He is based in Framingham, Massachusetts. GI & Hepatology News encourages readers to submit letters to the editor at ginews@gastro.org to debate topics in the issue.

Continued from previous page

A gastroenterologist referring Medicare patients to a center where that physician has an investment could technically violate this law because the physician will receive profit distributions from the referral. In addition to a felony with potential jail time, violation of this statute is grounds for substantial civil monetary penalties and/or exclusion from the government coverage program.

Fortunately, Aebel noted, legal safe harbors cover many financial relationships, including investment in an ASC. The financial arrangement is protected from prosecution if it meets five safe-harbor requirements, including nondiscriminatory treatment of government-insured patients and physician investment unrelated to a center’s volume or the value of referrals. If even one aspect is not met, that will automatically constitute a crime.

“However, the government will look at facts and circumstances to determine whether there was an intent to pay for a referral,” Aebel wrote.

The safe harbor designates requirements for four types of ASCs: surgeon-owned, single-specialty, multispecialty, and hospital/physician ASCs.

Private-Equity Investment

With mergers and acquisitions of US medical practices and networks by private-equity firms becoming more common, gastroenterologists

need to be aware of the legal issues involved in such investment.

Most states abide by corporate practice of medicine doctrines, which prohibit unlicensed people from direct ownership in a medical practice. These doctrines vary by state, but their primary goal is to ensure that medical decisions are made solely based on patient care and not influenced by corporate interests. The aim is to shield the physician-patient relationship from commercial influence.

“Accordingly, this creates additional complicated structures necessary for private-equity investment in gastroenterology practices,” Aebel wrote. Usually, such investors will invest in a management services organization (MSO), which takes much of the practice’s value via management fees. Gastroenterologists may or may not have an opportunity to invest in the practice and the MSO in this scenario.

Under corporate practice of medicine doctrine, physicians must control the clinical aspects of patient care. Therefore, some states may have restrictions on private-equity companies’ control of the use of medical devices, pricing, protocols, or other issues of patient care.

“This needs to be considered when reviewing the investment documents and structural documents proposed by private equity companies,” the advisory stated. From a business standpoint, gastroenterologists need to understand where they can negotiate for financial gain and

control over their clinical practice. “This could relate to their compensation, bonuses, and investment opportunities in the practice, the practice management company, and possibly real estate or ASCs.”

Offering a gastroenterologist’s perspective on the paper, Camille Th  lin, MD, MSc, an associate professor in the division of digestive diseases and health at the University of South Florida, Tampa, who



Dr. Th  lin

‘Ancillary services like capsule studies or office labs fall under strict Stark rules, ASC ownership has Anti-Kickback Law restrictions, and private-equity deals may affect both your paycheck and your autonomy.’

also practices privately, said, that “what Erin Aebel reminds us is that the business side of GI can be just as tricky as the clinical side. Ancillary services like capsule studies or office labs fall under strict Stark rules, ASC ownership has Anti-Kickback Law restrictions, and private-equity deals may affect both your paycheck and your autonomy.”

Th  lin’s main takeaway advice is that business opportunities can be valuable but carry real legal risks if not structured correctly. “This isn’t just abstract compliance law — it’s about protecting one’s ability to practice medicine, earn fairly, and avoid devastating penalties,” she

told *GI & Hepatology News*. “This article reinforces the need for proactive legal review and careful structuring of business arrangements so physicians can focus on patient care without stumbling into avoidable legal pitfalls. With the right legal structure, ancillaries, ASCs, and private equity can strengthen your GI practice without risking compliance.”

The bottom line, said Aebel, is that gastroenterologists already in private practice or considering entering one must navigate a complex landscape of compliance and regulatory requirements — particularly

when providing ancillary services, investing in ASCs, or engaging with private equity.

Understanding the Stark Law, the AKB Statute, and the intricacies of private-equity investment is essential to mitigate risks and avoid severe penalties, the advisory stressed. By proactively seeking expert legal and business guidance, gastroenterologists can structure their financial arrangements in a compliant manner, safeguarding their practices while capitalizing on growth opportunities.

This paper listed no external funding. Neither Aebel nor Th  lin had any relevant conflicts of interest. ■

Simpler Approach Increases Diagnostic Accuracy of Timed Barium Esophagram for Achalasia

BY WILL PASS

FROM GASTROENTEROLOGY

Interpreting timed barium esophagram (TBE) results with a multimetric classification tree is more accurate for identifying disorders of achalasia than conventional interpretation, according to investigators.

The classification tree offers a practical alternative for evaluating esophagogastric junction (EGJ) outflow disorders when more advanced methods like high-resolution manometry (HRM) or functional lumen imaging probe (FLIP) panometry are unavailable, lead author Ofer Z. Fass, MD, of Northwestern University, Chicago, and colleagues reported.

“[T]here are limited data on normative TBE values,” the investigators wrote in *Gastroenterology* (2025 Feb. doi: 10.1053/j.gastro.2025.02.013). “Furthermore, data supporting the accuracy of TBE as a screening test for esophageal motility disorders, as well as clinically relevant test thresholds, remains limited.”

TBE is conventionally interpreted using a handful of single measurements, most often the barium column height at 1, 2, or 5 minutes. Although these metrics are simple to obtain, variability in technique, cutoff values, and interpretation across centers limits reproducibility and weakens diagnostic accuracy, according to the investigators. The role of TBE has therefore been largely confined to adjudicating inconclusive manometry findings, but even in that setting, the absence of validated reference standards constrains its utility as a reliable screening tool.

To address this gap, Fass and

colleagues conducted a prospective analysis of 290 patients who underwent TBE at Northwestern Memorial Hospital, Chicago, with HRM and FLIP panometry, interpreted according to the Chicago Classification version 4.0 (CCv4.0), serving as the diagnostic reference standards.

Patients were included if they had both TBE and manometry performed within a short interval, ensuring that the two tests could be meaningfully compared. The study population represented a broad spectrum of esophageal motility presentations, allowing the model to be trained on clinically relevant variation.

Beyond column height, the investigators measured barium height at multiple timepoints, maximal esophageal body width, maximum EGJ diameter, and tablet passage. These variables were incorporated into a recursive partitioning algorithm to build a multimetric classification tree aimed at distinguishing EGJ outflow obstruction from other motility disorders.

The optimal tree incorporated three sequential decision levels. At the top was maximum esophageal body width, followed by EGJ diameter and barium height at the second level, and tablet passage at the third. This stepwise structure allowed the model to refine diagnoses by combining simple, reproducible TBE metrics that are already collected in routine practice.

Among the 290 patients, 121 (42%) had EGJ outflow disorders, 151 (52%) had no outflow disorder, and 18 (6%) had inconclusive manometry findings. With use of conventional interpretation with column height and tablet passage,

TBE demonstrated a sensitivity of 77.8%, a specificity of 86.0%, and an accuracy of 82.2%. The multimetric classification tree improved diagnostic performance across all parameters, with a sensitivity of 84.2%, a specificity of 92.1%, and an accuracy of 88.3%.

The advantages of multimetric interpretation were most notable in patients with borderline column heights, which single-metric approaches often misclassify, underscoring the value of integrating multiple measurements into a unified model.

“[T]his study demonstrated that TBE can accurately identify achalasia when analyzed using multiple metrics in a classification tree model,” Fass and colleagues wrote. “Future studies should explore the use of TBE metrics and models to identify more specific esophageal motor disorders (such as esophageal spasm and absent contractility), as well as validation in a larger, multicenter cohort.”

Clinical Takeaways

Rishi Naik, MD, of the Center for Swallowing and Esophageal Disorders, Vanderbilt University Medical Center, Nashville, Tennessee, said the study represents a step forward in how clinicians can use a widely accessible esophageal imaging test.

“This study is important in that it has updated the way we use a very common, readily available imaging test and compared it to the current gold standard of HRM and FLIP,” he told *GI & Hepatology News*. “This provides a practical, standardized framework for clinicians evaluating patients with suspected esophageal motility disorders.”

Naik noted that while HRM and

FLIP provide highly detailed information, both carry drawbacks that limit their universal adoption.

“Practically, HRM is a transnasal test that can be cumbersome, and FLIP is performed during a sedated procedure,” he said. “From a comfort and cost perspective, the esophagram outcompetes. What the TBE lacked was adequate sensitivity and specificity when just looking at column height, which

is how the authors overcame this by leveraging the comparisons using CCv4.0.”

Implementation, however, requires discipline.

“A timed barium esophagram

is a protocol, not a single esophagram,” Naik said. “Without proper measurements, you can’t follow the decision tree.”

Still, he pointed to radiology’s increasing adoption of artificial intelligence (AI) as a promising way forward.

“AI has already transformed radiological reads, and I’m optimistic it will eventually allow us to incorporate not only width, height, and tablet clearance but also 3D [three-dimensional] reconstructions of bolus retention and pressure to enhance predictive modeling,” Naik said.

This study was supported by the Public Health Service.

The investigators disclosed having relationships with Take-Data, Phathom Pharmaceuticals, Medtronic, and others. Naik is a consultant for Sanofi/Regeneron, Eli Lilly, and Renexxion. ■



Dr. Naik

More Than 100 Strong for Advocacy Day 2025!

AGA leaders came from across the country to Washington, DC, on September 25 with a major goal in mind: to advocate for gastroenterology with their lawmakers during our annual Advocacy Day. For our leaders, showing up on behalf of their patients is a privilege and an opportunity to represent the specialty with individuals who have

a role in dictating healthcare policy.

In total, 124 members, patient advocates, and AGA staffers met with lawmakers and attended 130 meetings — 70 unique House districts and 60 unique Senate offices — with Republican and Democratic staff.

Our advocacy contingent represented the diversity of the country with 30 states represented from

coast-to-coast. No matter the home state, everyone was united in the calls to Congress: to reform prior authorization, increase digestive disease funding, and secure a permanent solution for Medicare physician reimbursement.

As in past years, patient advocates participated alongside GI clinicians and researchers.

Their participation underscored the importance of including diverse voices. As patients with chronic health conditions, they were able to convey how their experiences navigating insurance barriers or managing delays to care as prescribed by their healthcare provider impacted their well-being and quality of life.

Continued on following page

GLP-1s Raise Reflux Risk Over SGLT2s in Type 2

BY MARILYNN LARKIN

In patients with type 2 diabetes (T2D), the risks for gastroesophageal reflux disease (GERD) and GERD-related complications were greater with GLP-1 receptor agonist (GLP-1RAs) use than with SGLT2 inhibitor use in a cohort study of new users.

Risks for GERD were higher overall for each GLP-1RA type except lixisenatide, and risks for GERD complications were higher in ever-smokers, patients with obesity, and patients with gastric comorbidities.

"The findings were not entirely surprising," principal author Laurent Azoulay, PhD, of McGill University and Lady Davis Institute for Medical Research, Jewish General Hospital, Montreal, told *GI & Hepatology News*. "There is a plausible biological mechanism through which GLP-1RAs could increase the risk of GERD — namely, by delaying gastric emptying, which can lead to symptoms of reflux. Still, it's always valuable to see whether the clinical data support what we suspect from a physiological standpoint."

"As with any medication, it's about balancing benefits and risks — and being proactive when side effects emerge," he added.

The study was published online in *Annals of Internal Medicine* (2025 Jul. doi: 10.7326/ANNALS-24-03420).

Duration of Use, Drug Action

Researchers designed an active comparator new-user cohort study

emulating a target trial to estimate the effects of GLP-1RAs compared with SGLT2 inhibitors on the risk for GERD and its complications among patients with T2D.

The study included 24,708 new users of GLP-1RAs and 89,096 new users of SGLT2 inhibitors. Participants had a mean age of 56 years, and 55% were men. They initiated treatment with the drugs from January 2013 through December 2021, with follow-up through March 2022.

Three-year risk differences (RDs) and risk ratios (RRs) were estimated and weighted using propensity-score fine stratification.

'As with any medication, it's about balancing benefits and risks — and being proactive when side effects emerge.'

Overall, during follow-up, the incidence rate of GERD was 7.9 per 1000 person-years; 138 complications of GERD were observed, with over 90% of them being Barrett's esophagus.

Over a median follow-up of 3 years, among GLP-1RA users compared with SGLT2 inhibitor users, the RRs were 1.27 for GERD, with an RD of 0.7 per 100 patients, and 1.55 for complications, with an RD of 0.8 per 1000 patients.

Further analyses found that risks for GERD were higher overall for each GLP-1RA type except lixisenatide, and risks for GERD complications were higher in ever-smokers, patients with obesity, and those with gastric

comorbidities associated with gastric motility. The findings remained robust across sensitivity analyses addressing various types of biases.

The widening incidence curves with duration of use may indicate that mucosal injury and symptom severity correlate with reflux frequency and duration of esophageal acid exposure, the authors suggested.

GERD risk also was higher with long-acting GLP-1RA use, suggesting that long-acting GLP-1RAs (liraglutide, exenatide once weekly, dulaglutide, and semaglutide) may have more sustained delaying effects, they noted.

"These potential risks should be weighed against the established clinical benefits of this drug class, particularly in patients at high risk for gastroparesis and GERD," the authors concluded.

"Given the mechanism through which these drugs may cause GERD, we can reasonably speculate that a similar effect might be observed in individuals without diabetes," Azoulay added. "That said, a dedicated study would be needed to confirm that."

Close Monitoring Advised

Caroline Collins, MD, assistant professor at Emory University School of Medicine in Atlanta, agreed with the findings and said the association between GLP-1s and GERD is consistent with what she has observed in her practice.

"I routinely counsel patients about the potential for GERD symptoms as well as other side effects before initiating GLP-1 therapy," she

told *GI & Hepatology News*. "Several patients on GLP-1s have reported new or worsening reflux symptoms after initiating therapy. Sometimes, we can lower the dose, and the GERD resolves. Other times initiating GERD treatment or discontinuing the medication is appropriate."

"Patients with T2D are already at increased risk for delayed gastric emptying, which in itself is a contributor to GERD," said Collins, who was not involved in the study. "Therefore, adding a GLP-1RA, which further slows gastric motility, may compound this risk. I consider this when assessing which patients are the best candidates for these medications and often monitor more closely in patients with long-standing diabetes and other predisposing factors to GERD."

Barrett's esophagus and esophageal cancer generally occur over many years, she noted. "A median follow-up of 3 years may be insufficient to fully assess the long-term risks of serious complications."

"Chronic cough, a common but often overlooked manifestation of GERD, was not included in the outcome definitions," she added. Including chronic cough "may have captured a broader picture of reflux-related symptoms."

The study was funded by a Foundation Scheme grant from the Canadian Institutes of Health Research. Azoulay holds a Distinguished Research Scholar award from the Fonds de recherche du Québec – Santé and is the recipient of a William Dawson Scholar award from McGill University. ■

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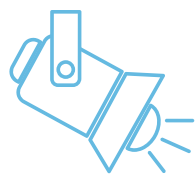
Throughout the day, patient advocates and doctors alike were encouraged by their meetings with congressional staffers. Conversations were constructive, engaging, and meaningful as everyone collaborated on common ground: seeking solutions to ensure GI patients have timely access to care that they need.

Many AGA leaders appreciated the value of being able to unite with colleagues to advocate and share their firsthand experiences in the lab or clinic in meetings with House and Senate staffers.

While Advocacy Day lasts a single day, its value hasn't diminished. Thanks to the engagement and participation of the more than 100 AGA leaders and patient advocates, we can continue to build positive relationships with influential policymakers and make strides to improve and protect access to GI patient care. ■



AGA members and patient advocates attended 130 meetings with lawmakers in Washington, DC, as they advocated for policies to improve GI patient care.



Member

SPOTLIGHT

'Don't Take Shortcuts,' Endoscopy Researcher Advises

BY JENNIFER LUBELL

MDedge News

Manol Jovani, MD, MPH, has published more than 70 research papers on clinical gastroenterology (GI) research, some resulting in the publication of international guidelines. But the work he's most proud of took place when he was a graduate student at Harvard, working on a master's degree in epidemiology and biostatistics.

Jovani compared two different types of needles for tissue acquisition with endoscopic ultrasound. His finding that fine-needle biopsy is better than fine-needle aspiration for lesions isn't groundbreaking, yet "the reason why I feel proud of that one is because it's the first paper I did completely by myself," said Jovani, medical director for advanced therapeutic endoscopy with Gastro Health Florida, Miami.

Jovani has since contributed to countless peer-reviewed articles and book chapters and has presented research findings at meetings across the globe. He will be program director of the upcoming gastroenterology fellowship program at Florida International University School of Medicine, Miami, and participates in several endoscopy panels in the US and in Europe to set guidelines and improve the quality of endoscopic procedures.

Therapeutic endoscopy is a clinical interest of his, specifically in the areas of third space, biliopancreatic and bariatric endoscopy. In an interview, he discussed how he used third space endoscopy to save a patient and improve her quality of life.

Indeed, helping patients feel better is the most satisfying part of his career.

Lightning round

What's one hobby you'd like to pick up?

Kite surfing

What's your favorite season of the year?

Summer

What's your favorite way to spend a weekend?

Traveling or going to the beach

If you could have dinner with any historical figure, who would it be?

Jesus Christ

What's your favorite holiday tradition?

New Year's Eve

Are you a planner or more spontaneous?

Planner

What's the best piece of advice you've ever received?

You can do it!

What's your comfort food?

Lasagna



Dr. Manol Jovani visits Sacra di San Michele (Saint Michael's Abbey) in Piedmont, Italy.

"A lot of people may have acute pain or an early cancer or many other problems that they need solving. As a physician, you can be the one who solves it," said Jovani.

But training in medicine involves hard work, he advised. In the interview, he explained why young doctors should never rely on shortcuts to solve problems.

Therapeutic endoscopy is a specific interest of yours. How has this field advanced since you've been practicing gastroenterology?

Dr. Jovani: In the last 10-15 years, significant improvements have come along. As an example, lumen-apposing metal stents have revolutionized the way we do therapeutic endoscopy. A lot of procedures were not possible beforehand and we would have to send patients to surgery. Now, these can be done with endoscopy.

Examples include drainage of pancreatic collections, gallbladder drainage, or gastrojejunostomy (a connection between the stomach and the intestine) or reversal of Roux-en-Y gastric bypass to reach and drain the bile duct. Many of these procedures can be done with these metal stents that were not possible beforehand. Bariatric endoscopy is a relatively new field, and that has significantly changed the management of obesity. There's also third space endoscopy for the treatment of gastroparesis, achalasia, and early cancer.

What is third space endoscopy and how are you applying it in your practice?

Dr. Jovani: Third space endoscopy refers to a new space that's created between the mucosa and the muscularis propria into the submucosa. We go in the submucosa, we inject some fluid there, and we cut the submucosa and we separate the mucosa from the muscle.

This allows us to do a lot of procedures. For patients with achalasia, we can tunnel through the submucosa, get into the muscle and perform myotomy, meaning that we can cut the muscle. By doing so, we can treat achalasia with a

minimally invasive method. Patients can either go home the next day or even on the same day. The same thing applies for gastroparesis. With early cancer, we can go through in the submucosa, and if the cancer is in the mucosa only, or if it is in the very superficial submucosa, we can treat it without a need for surgery. Sometimes the procedure is simple, but other times it can be very challenging.

Can you discuss a challenging case where you applied third space endoscopy?

Dr. Jovani: It was a gastric cancer case. I did an endoscopic ultrasound for staging purposes. When I saw the lesion, it looked very superficial, like an early cancer of the stomach. I called the surgeon and said I could take it out with endoscopy. And it was in a very difficult location, so it was a very challenging procedure. It took about 12 hours to do it, but I was able to completely take it out. More than a year later, the patient was cancer free and more importantly, we preserved the stomach. Before I did this, she was prepared to undergo total gastrectomy, which meant I would have taken out her entire stomach.

Instead, with this minimally invasive procedure, I was able to take the cancer away and keep the stomach, which preserved her quality of life as well.

When you don't have the stomach, obviously you adapt, but the quality of life is never the same. The type of food you eat, the frequency of eating, the quality of food you eat is not the same. The fact that we could avoid that in this patient feels very good.

What advice would you give to aspiring medical students?

Dr. Jovani: Do the hard work that's required to be a doctor. Being a physician is a hard job, but it's very rewarding. It's like going to the gym — there really are no shortcuts. You have to do the work, you have to get tired, you have to study

GIOVANNI SIGNORIELLO

hard. You may study things you might not think will be useful to you necessarily in the future field that you choose. If it is GI, you still need to study all the other fields because sometimes patients may have GI diseases that are connecting with other diseases and you won't know that if you haven't studied the other diseases.

Patients are not only one disease, but they are also complex patients. Sometimes if you try to correct one disease, you create a complication with the other disease and you might not be aware of that.

Don't create shortcuts like ChatGPT, things that are becoming fashionable with younger people today. Do the hard work the old way in which you have to memorize things. Knowledge is the only thing that really can help the patient.

Go to GI meetings. Offer to meet people, collaborate, network. Don't be shy about it. Even if it is not natural to you, just do it. It'll become more natural as you do it. GI, like any other field, any other endeavor in human society, is something that also depends on interactions. Therefore, it's good to learn how to interact, how to network, how to do research projects. Even with people from far away, communication is very easy.

You don't really need to do research projects only with people in your local environment. You can do research projects with people who are on the other side of the state or even on the other side of the world.

You place an emphasis on individualized patient care. Can you discuss what that means to you?

Dr. Jovani: It basically means that there isn't one size fits all in the management of diseases. Obviously there are some general principles that are applicable to everybody, but sometimes for the single specific patient, what works for one patient might not necessarily work for the next patient.

With endoscopic retrograde cholangiopancreatography, for example, there are so many things that go into that. Most papilla are in a certain position and it's relatively easy to cannulate. But there are others that are in very different positions or in different angulations and they might require specific techniques that are not applicable in the majority of cases. You have to adapt to the single patient.

How you speak to the patient is also important. Some may prefer a certain type of communication and



Dr. Manol Jovani vacations in Bali, Indonesia.

other patients may prefer another type of communication involving patients or family. You have to adapt to the single patient. You have to understand the different types of personalities and adapt how you explain things or how you communicate disease, or management of disease or even complications to the specific patient. Different approaches are more appropriate for different patients with different needs. At the end of the day, patients are single individuals after all.

Where do you see the field of GI medicine advancing internationally over the next 5 years?

Dr. Jovani: Artificial intelligence is a big player. It will help with diagnostics primarily, at least over the short term. Potentially it can help with therapeutics as well. There's a lot of investment and excitement and interest in artificial intelligence.

Therapeutic endoscopy robotics, especially in interventional endoscopy, third space endoscopy, is also gaining attention.

With regards to bariatric endoscopy, we should have a CPT code for it in January 2027. This will increase volume because it'll be covered more by insurance. These are things that will help advance GI in the next 5 or 10 years. ■

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COM24-043

The Future of AI in Gastroenterology and Endoscopy

Dear colleagues,

Since our last Perspectives feature on artificial intelligence (AI) in gastroenterology and hepatology, the field has experienced remarkable growth in both innovation and clinical adoption. AI tools that were once conceptual are now entering everyday practice, with many more on the horizon poised to transform how we diagnose, treat, and manage patients. In this issue of Perspectives, we present two timely essays that explore how AI is reshaping clinical care — while also emphasizing the need for caution, thoughtful integration, and ongoing oversight.

Dr. Yuvaraj Singh, Dr. Alessandro Colletta, and Dr. Neil Marya discuss how purpose-built AI models can reduce diagnostic uncertainty in advanced endoscopy. From cholangioscopy

systems that outperform standard ERCP sampling in distinguishing malignant biliary strictures to EUS-based platforms that differentiate autoimmune pancreatitis from pancreatic cancer, they envision a near-term future in which machine intelligence enhances accuracy, accelerates decision-making, and refines interpretation — without replacing the clinician's expertise.

Complementing this, Dr. Dennis Shung takes a broader view across the endoscopy unit and outpatient clinic. He highlights the promise of AI for polyp detection, digital biopsy, and automated reporting, while underscoring the importance of human oversight, workflow integration, and safeguards against misinformation. Dr. Shung



Dr. Ketwaroo

also emphasizes the pivotal role professional societies can play in establishing clear standards, ethical boundaries, and trusted frameworks for AI deployment in GI practice.

We hope these perspectives spark practical conversations about when — and how — to integrate AI in your own practice. We welcome your feedback and real-world experience. Join the conversation on X at @AGA_GIHN.

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.

AI Models in Advanced Endoscopy

**BY YUVARAJ SINGH, MD;
ALESSANDRO COLLETTA, MD;
AND NEIL MARYA, MD**

As the adage goes, “if tumor is the rumor, then tissue is the issue, because cancer may be the answer.”

Establishing an accurate diagnosis is the essential first step toward curing or palliating malignancy. From detecting an early neoplastic lesion, to distinguishing between malignant and benign pathology, or to determining when and where to obtain tissue, endoscopists are frequently faced with the challenge of transforming diagnostic suspicion into certainty.

Artificial intelligence (AI), designed to replicate human cognition such as pattern recognition and decision-making, has emerged as a technology to assist gastroenterologists in addressing a variety of different tasks during endoscopy. AI research in gastrointestinal endoscopy has initially focused on computer-aided detection (CADe) of colorectal polyps. More recently, however, there has been increased emphasis on developing AI to assist advanced endoscopists.

For instance, in biliary endoscopy,

AI is being explored to improve the notoriously challenging diagnosis of cholangiocarcinoma, where conventional tissue sampling often falls short of providing a definitive diagnosis. Similarly, in the pancreas, AI models are showing potential to differentiate autoimmune pancreatitis (AIP) from pancreatic ductal adenocarcinoma (PDAC), a distinction with

profound therapeutic implications. Even pancreatic cysts are beginning to benefit from AI models that refine risk stratification and guide management. Together, these advances underscore how AI is not merely an adjunct but a potentially massive catalyst for reimagining the diagnostic role of advanced endoscopists.

Classifying malignant biliary

Advanced Continued on following page



Dr. Singh



Dr. Colletta



Dr. Marya

AI in General GI and Endoscopy

**BY DENNIS L. SHUNG, MD, PHD,
MHS**

The practice of gastroenterology is changing, but much of it will be rooted in the same — careful, focused attention on endoscopic procedures, and compassionate, attentive care in clinic. Artificial intelligence (AI), like the Industrial Revolution before, is going to transform our practice. This comes with upsides and downsides, and highlights the need for strong leadership from our societies to safeguard the technology for practitioners and patients.

What are the upsides?

AI has the potential to serve as a second set of eyes in detecting colon polyps, increasing the adenoma detection rate (ADR).¹ AI can be applied to all areas of the gastrointestinal tract, providing digital biopsies, guiding resection, and ensuring quality, which are all now possible with powerful new endoscopy foundation models, such as GastroNet-5M.²

Additionally, the advent of automating the collection of data into reports may herald the end of our days as data entry clerks. Generative AI also has the potential to give us all the best information at our fingertips, suggesting guideline-based care, providing the most up-to-date evidence, and guiding the differential diagnosis. The potential for patient-facing AI systems could lead to better health literacy, more meaningful engagement, and improved patient satisfaction.³

What are the downsides?

For endoscopy, AI cannot make up for poor technique to ensure adequate mucosal exposure by the endoscopist, and an increase in AI-supported ADR does not yet convincingly translate into concrete gains in colorectal cancer-related mortality. For the foreseeable future, AI cannot make a connection with the patient in front of us, which is critical in diagnosing and treating patients.

Currently, AI appears to worsen loneliness,⁴ and does not necessarily deepen the bonds or provide the positive touch that can heal, and which for many of us, was the reason we became physicians. Finally, as information proliferates, the information risk to patients and providers

General Continued on following page

Read more!

Please find full-length versions of these debates online at MDedge.com/gihepnews/perspectives.

strictures (MBS) accurately remains a challenge. Standard endoscopic retrograde cholangiopancreatography (ERCP)-based sampling techniques (forceps biopsy and brush cytology) are suboptimal diagnostic tools with false-negative rates for detecting MBS of less than 50%. The diagnostic uncertainty related to MBS classification carries significant consequences for patients. For example, patients with biliary cancer without positive cytology have treatments delayed until a malignant diagnosis is established.

Ancillary technologies to enhance ERCP-based tissue acquisition are still weighed down by low sensitivity and accuracy; even with ancillary use of fluorescent in situ hybridization (FISH), diagnostic yield remains limited. endoscopic ultrasound (EUS) fine needle aspiration can help with distal biliary strictures, but this technique risks needle-tract seeding in cases of perihilar disease. Cholangioscopy allows for direct visualization and targeted sampling; however, cholangioscopy-guided forceps biopsies are burdened by low sensitivities.¹ Additionally, physician interpretation of visual findings during cholangioscopy often suffers from poor interobserver agreement and poor accuracy.²

To improve the classification of biliary strictures, several groups have studied the application of AI for cholangioscopy footage of biliary pathology. In our lab, we trained an AI incorporating over 2.3 million cholangioscopy still images and nearly 20,000 expert-annotated frames to enhance its development.

The AI closely mirrored expert labeling of cholangioscopy images of malignant pathology and, when tested on full cholangioscopy videos of indeterminate biliary strictures, the AI achieved a diagnostic accuracy of 91% — outperforming both brush cytology (63%) and forceps biopsy (61%).³

The results from this initial study were later validated across multiple centers.⁴ AI-assisted cholangioscopy could thus offer a reproducible, real-world solution to one of the most persistent diagnostic dilemmas advanced endoscopists face — helping clinicians act earlier and with greater confidence when evaluating indeterminate strictures.

As for the pancreas, autoimmune pancreatitis (AIP) is a benign fibro-inflammatory disease that often frustrates advanced endoscopists as it closely mimics the appearance of pancreatic ductal adenocarcinoma (PDAC). The stakes are high: Despite modern diagnostic techniques, including advanced imaging, some patients with pancreatic resections for “suspected PDAC” are still found to have AIP on final pathology. Conventional tools to distinguish AIP from PDAC have gaps: serum IgG4 and EUS-guided biopsies are both specific but insensitive.

Using EUS videos and images of various pancreas pathologies at Mayo Clinic, we developed an AI to tackle this dilemma. After intensive training, the EUS AI achieved a greater accuracy for distinguishing AIP from PDAC than a group of expert Mayo Clinic endosonographers.⁵ In practice, an EUS-AI can identify AIP patterns in real time, guiding clinicians toward steroid

trials or biopsies and reducing the need for unnecessary surgeries.

In future, there are multiple opportunities for integration of AI into advanced endoscopy practices. Ongoing research suggests that AI

‘In biliary endoscopy, AI is being explored to improve the notoriously challenging diagnosis of cholangiocarcinoma, where conventional tissue sampling often falls short of providing a definitive diagnosis.’

could soon assist with identification of pancreas cysts most at risk for malignant transformation, classification of high-risk Barrett’s esophagus, and even help with rapid on-site assessment of cytologic specimens obtained during EUS. Beyond diagnosis, AI could likely play an important role in guiding therapeutic interventions. For example, an ERCP AI in the future may be able to provide cannulation assistance or an AI assistant could help endosonographers during deployments of lumen apposing metal stents.

By enhancing image interpretation and procedural consistency, AI has the potential to uphold the fundamental principle of *primum non nocere*, enabling us to intervene with precision while minimizing harm. AI can also bridge gray zones in clinical practice and narrow diagnostic uncertainty in real time. Importantly, these systems can help clinicians achieve expertise in

a fraction of the time it traditionally takes to acquire comparable human proficiency, while offering wider availability across practice settings and reducing interobserver variability that has long challenged endoscopic interpretation.

Currently, adoption is limited by high bias risk, lack of external validation, and interpretability. Still, the trajectory of AI suggests a future where these computer technologies will not only support but also elevate human expertise, reshaping the standards of care of diseases managed by advanced endoscopists. ■

Dr. Singh, Dr. Colletta, and Dr. Marya are based at the division of gastroenterology and hepatology, UMass Chan Medical School, Worcester, Massachusetts. Dr. Marya is a consultant for Boston Scientific, and has no other disclosures. Dr. Singh and Dr. Colletta have no disclosures.

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is growing — in the future, trusted sources to monitor, curate, and guide AI will be ever more important.

Black Swans

As AI begins to mature, there are risks that lurk beneath the surface. When regulatory bodies begin to look at AI-assisted diagnostics or therapeutics as the new standard of care, reimbursement models may adjust, and providers may be left behind. The rapid proliferation and haphazard adoption of AI could lead to overdependence and de-skilling or result in weird and as yet unknown errors that are difficult to troubleshoot.

What is the role of the medical societies?

Specialty societies like AGA are

taking leadership roles in determining the bounds of where AIs may tread, not just in providing information to their membership but also in

‘Generative AI ... has the potential to give us all the best information at our fingertips, suggesting guideline-based care, providing the most up-to-date evidence, and guiding the differential diagnosis.’

digesting evidence and synthesizing recommendations. Societies must balance the real promise of AI in endoscopy with the practice realities for members, and provide living guidelines that reflect the consensus

of members regarding scope of practice with the ability to update as new data become available.⁵

Societies also have a role as advocates for safety, taking ownership of high-quality content to prevent misinformation. AGA recently announced the development of a chat interface that will be focused on providing its members the highest-quality information, and serve as a portal to identify and respond to its members’ information needs. By staying united rather than fragmenting, societies can maintain bounds to protect their members and their patients and advance areas where there is clinical need, together. ■

Dr. Shung is senior associate consultant, division of gastroenterology and hepatology, and director of clinical generative artificial intelligence

and informatics, Department of Medicine, at Mayo Clinic Rochester, Minnesota. He has no disclosures in regard to this article.

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Forceps Assistance Improves Outcomes in Difficult ERCP Cannulations

BY DIANA SWIFT

The first randomized controlled trial of forceps-assisted cannulation during endoscopic retrograde cholangiopancreatography (ERCP) has shown that this technique can significantly improve the success rate of the procedure.

The results emerged from the small, single-center SOCCER trial of 152 patients recruited from March 2022 to October 2024 and are published in *The American Journal of Gastroenterology* (2025 May. doi: 10.14309/ajg.0000000000003531).

Both groups had a slightly higher number of female participants, and the mean ages of the participants were 61.9 years in the forceps group and 68.3 years in the no-forceps group.

First author Steven M. Hadley Jr, an MD candidate at Northwestern Feinberg School of Medicine in Chicago, and colleagues reported that forceps assistance in difficult cannulations yielded significantly higher success rates than no forceps assistance (100% vs 83.9%; $P < .001$).

The investigators noted that difficult cannulations during ERCP have a frequency of 42%. Cannulation failure is associated with increased

morbidity — including longer hospitalization, increased ICU admissions, readmissions, and increased financial cost — as well as mortality rates of up to 10%.

SOCCER defined difficult cannulation as a papilla in or on the rim of a diverticulum, five or more attempts, attempts lasting 5 or more minutes, or two or more unintended pancreatic duct wire passages. Other features were redundant tissue overlaying the papilla or a type 2, 3, or 4 papilla.

The study found forceps assistance also had a nonstatistically significant lower rate of difficult cannulations than no forceps (57.1% vs 69.1%; $P = .132$). The rate of post-ERCP pancreatitis (PEP) was similarly low in both groups: 5.7% with forceps vs 3.7% without forceps ($P = .705$).

The no-forceps group had significantly more cannulation attempts after randomization than the forceps group (14 vs 8.3; $P = .026$).

Patients who crossed over to

forceps assistance all had successful cannulations.

The technique has long been used to overcome cannulation difficulties, said Timothy B. Gardner, MD, MS, a gastroenterologist at the Dartmouth Hitchcock Medical Center in Lebanon, New Hampshire, and a coauthor of the study. “It was particularly effective for cannulations with redundant tissue limiting access to the papilla,” Gardner told *GI & Hepatology News*. “We decided to design a randomized trial to determine the extent to which this technique worked. We believed our study would answer an important question that would hopefully lead to an improvement in endoscopy practice.”

While a few case reports and video demos had described the technique, no trials had assessed its effectiveness, Hadley added. “We found the technique to be effective based on our experience, but it was exciting to see that a rigorously designed randomized trial proved that it is indeed a very effective technique to facilitate cannulation.”

Hadley noted the technique does not increase PEP incidence, unlike the commonly used precut sphincterotomy and the double-wire method for difficult

cannulations. “As a result, the forceps-assisted technique may be an effective first-line option and may reduce the need for additional, more invasive procedures including surgery and repeat ERCP to obtain the therapeutic intent of the original ERCP.”

The paper outlines the technique’s methodology, he added, “so we believe endoscopists who read the manuscript will be able to start implementing the technique into their practice.”

Commenting on the paper but not involved in it, Christopher J.

DiMaio, MD, regional director of endoscopy for Northwell Health Physician Partners Gastroenterology and a gastroenterologist in Greenlawn, New York,



Dr. DiMaio

called it potentially helpful but aimed at a niche group of expert practitioners. “The technique appears safe and very effective, which is the No. 1 concern, and I would definitely keep it in my back pocket,” he said. “I expect it will be used more commonly now because of this study.”

He added that although expert endoscopists are familiar with the approach, they use more time-tested and sometimes more aggressive maneuvers to cope with difficult cannulations. “But this is a simple technique using a device that should be available to most high-volume endoscopists.”

DiMaio also noted that he would have liked to see an actual decrease in PEP incidence in the intervention group.

Looking ahead, Hadley said it would be interesting to compare the effectiveness of the double-wire technique against forceps-assisted cannulation in a randomized context. “A study we’re already looking into is seeing whether physician experience with the technique impacts outcomes.”

This study was supported by the American College of Gastroenterology. The authors and DiMaio reported having no relevant competing interests. ■



Steven M. Hadley

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PNQ24-002

Repeat Intubation of the Sigmoid Colon Improves Adenoma Detection

BY NANCY A. MELVILLE

A colonoscopy technique involving repeat intubation of the sigmoid colon significantly improves detection of adenomas compared with conventional colonoscopy evaluations, new research showed.

"After eliminating the impact of time, the adenoma-detection rate [with a second intubation vs standard withdrawal] was still significantly increased, indicating that the second intubation technique could enhance the visualization of the sigmoid colon mucosa and reduce the rate of missed lesions," reported the authors of the study, published in *The American Journal of Gastroenterology* (2025 Jun. doi: 10.14309/ajg.0000000000003611).

When precancerous polyps are removed during standard colonoscopies, as many as 70%-90% of colorectal cancers can be prevented; however, rates of missed polyps are notoriously high.

Recent studies have shown improved adenoma detection rates with the use of Endocuff, water-assisted colonoscopy, full-spectrum endoscopy, and repeat withdrawal examinations, which include retroflexion and forward-viewing methods.

The repeat colonoscopy examinations may represent "the easiest and most practical option for endoscopists as they do not require additional tools, staff, or funding," the authors explained.

However, most studies on the issue have focused mainly on the right colon and forward-viewing examinations, whereas the sigmoid colon, which has the most turns and is the most easily compressed, can be easily missed during withdrawal.

To investigate if use of a second colon intubation of the sigmoid colon could improve detection rates, senior author Jianning Yao, MD, of the department of gastroenterology, The First Affiliated Hospital of Zhengzhou University, China, conducted a randomized trial, enrolling 650 patients between December 2023 and April 2024 who were aged 45 or older and had overweight or obesity (BMI ≥ 24).

At the time of the first withdrawal during the colonoscopy, the patients were randomized 1:1 to groups of 325 each to either receive

standard withdrawal, with withdrawal to the anus, or to receive a second intubation, with reinsertion into the sigmoid colon.

In the second intubation, the colonoscope was pushed forward without straightening, "allowing for slight looping that could be used to flatten the colonic folds as the tip of the instrument was advanced."

The patients had a mean age of 55; about 25% had a smoking habit, and the mean BMI was about 28. There were no significant differences in other baseline characteristics.

The results showed that patients in the second-intubation group vs standard-withdrawal group had a substantially higher adenoma detection rate (24.3% vs 14.5%) and polyp detection rate (29.2% vs 17.8%, $P = .001$ for both) in the sigmoid colon.

In the second-intubation group, 85% of the adenomas discovered throughout the second inspection in the sigmoid colon were 5 mm or smaller in size. In addition, 90% of the 40 adenomas were somewhat raised or pedunculated, and all were tubular adenomas.

No high-grade dysplasia adenomas were discovered.

Of note, the colonoscopy in the second-intubation group's colonoscopic examinations took just 1.47

minute longer overall than the standard-withdrawal group's exams.

Factors that were determined in a multivariate analysis to be independent predictors of higher adenoma detection in the second-intubation group included older age, smoking habit, longer duration of the second inspection, and the identification of lesions during the initial withdrawal from the sigmoid colon.

Patients' vital signs were monitored at intervals of 3 minutes throughout the colonoscopy procedure, and patients were followed up to monitor for any adverse events occurring within 2 weeks after the exam, with no notable disparities observed between the two groups.

Alternative to AKS Approach

The authors explained that, in their approach in the second intubation, the common axis-keeping shortening (AKS) was not utilized, and instead they pushed the colonoscope forward without straightening it, which offers important advantages.

"In this way, slight looping of the colonoscope can be used to flatten the colonic folds as the tip of the instrument is advanced, thereby achieving an observation effect that cannot be reached by any number of withdrawal examinations."

In general, the stimulation of

peristalsis during a second examination allows for the observation of the colonic mucosa from different angles, thereby reducing the rate of missed lesions, the authors added.

"Although the detection of these lesions may not significantly affect clinical outcomes, it serves as a reminder for patients regarding regular follow-ups and lifestyle adjustments," they explained.

"Additionally, it may reduce the likelihood of missing some smaller lesions that progress rapidly, such as de novo cancer."

Based on the results, the authors concluded that older patients, patients who smoke, or those with lesions found on the first sigmoid inspection have a higher chance of having missed adenomas discovered in the sigmoid colon during the second intubation examination.

"If one of these risk factors is present, a second examination of the sigmoid colon may be considered to detect missed lesions," they said.

The added time commitment of just 1.47 minutes can be a worthwhile tradeoff, they added.

"Considering the improvements in the adenoma-detection rate provided by the second intubation, this modest time increase may be acceptable."

The authors had no disclosures. ■



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EDU25-006

Anti-TNF Exposure Influences Efficacy of Subsequent Therapies in UC

BY WILL PASS

MDedge News

FROM CLINICAL GASTROENTEROLOGY
AND HEPATOLOGY

Prior exposure to TNF antagonists may weaken the benefit of some advanced therapies for ulcerative colitis (UC) while enhancing the efficacy of others, based on results of a large meta-analysis.

Patients previously treated with TNF antagonists were less likely to respond to lymphocyte trafficking inhibitors but more likely to achieve remission on JAK inhibitors, Han Hee Lee, MD, PhD, of the University of California San Diego, and colleagues reported.

“Treatment options for patients with moderate-severe ulcerative colitis have increased in the last decade with the availability of six different classes of medications,” investigators wrote in *Clinical Gastroenterology and Hepatology* (2024 Dec. doi:10.1016/j.cgh.2024.12.007). “There is wide interindividual variability in

response to specific medications, and drivers of this heterogeneity are critical to understand to be able to choose the best therapy for each individual patient.”

To learn more about the impacts of anti-TNF exposure on subsequent advanced therapies, the investigators conducted a systematic review and meta-analysis of 17 phase 2 and 3 trials. The dataset included 8871 adults with moderate-severe UC.

The primary outcome was induction of clinical remission at 6-14 weeks, most often defined as a Mayo Clinic score of 2 or lower with no subscore greater than 1. Endoscopic improvement, generally defined as a Mayo endoscopic subscore of 0 or 1, was evaluated as a secondary endpoint.

Advanced therapies were grouped by mechanism of action, including lymphocyte trafficking inhibitors, JAK inhibitors, and interleukin (IL)-12/23 and IL-23 antagonists. Odds ratios for treatment versus placebo were calculated separately for each subgroup, and a ratio of odds ratios (ROR) was then used to

assess whether prior TNF exposure modified drug effect. Analyses were conducted on an intention-to-treat basis, restricted to approved dosing when multiple regimens were tested.

Across five trials of lymphocyte trafficking inhibitors including 2046 patients, efficacy was significantly greater in TNF-naïve patients compared with those who had prior TNF exposure. The odds of achieving clinical remission were nearly doubled in the TNF-naïve group (ROR, 1.88; 95% CI, 1.02-3.49).

In six trials of JAK inhibitors including 3015 patients, remission rates were higher among TNF-exposed patients compared with TNF-naïve patients (ROR, 0.47; 95% CI, 0.22-1.01).

In six trials of IL-12/23 and IL-23 antagonists, including 3810 patients, prior TNF exposure did not significantly modify treatment outcomes (ROR, 1.07; 95% CI, 0.64-1.80). Within individual trials, ustekinumab showed a trend toward greater efficacy in TNF-exposed patients, whereas selective

IL-23 antagonists performed similarly regardless of exposure history.

Secondary analyses of endoscopic improvement yielded results consistent with the primary endpoint. Statistical heterogeneity across trials was minimal, and all included studies were rated at low risk of bias.

The investigators noted several limitations. Therapies were grouped broadly by mechanism of action, although specific biologic effects could potentially differ within groups. The analysis also could not account for patients who had failed two or more classes of advanced therapy, which may independently reduce the likelihood of response.

Still, Lee and colleagues suggested that the findings deserve a closer look.

“[T]here is significant heterogeneity of treatment efficacy for induction of remission with different advanced therapies in patients with moderate-severe UC based on prior exposure to TNF antagonists,” they concluded. “Future studies on the mechanistic insight for these intriguing observations are warranted.” ■

Long-Term Data Support Reduced-Dose Maintenance in EoE

BY WILL PASS

MDedge News

FROM CLINICAL GASTROENTEROLOGY
AND HEPATOLOGY

Biologic and corticosteroid maintenance therapies for eosinophilic esophagitis (EoE) are generally safe and effective, even at reduced doses, according to a recent meta-analysis of long-term data.

These findings support keeping patients on long-term maintenance therapy to prevent relapse, lead author Alberto Barchi, MD, of IRCCS Ospedale San Raffaele, Milan, Italy, and colleagues, reported.

“Given the high relapse rate after treatment cessation, despite good initial response after induction, there is need for further information about long-term outcomes of maintenance treatments,” the investigators wrote in *Clinical Gastroenterology and Hepatology* (2024 Dec. doi: 10.1016/j.cgh.2024.11.007). “However, few studies have focused on long-term effects of EoE therapies.”

In response, Barchi and colleagues conducted the present systematic review and meta-analysis, which included studies evaluating maintenance therapies for EoE

with at least 48 weeks of follow-up. Eligible studies enrolled patients with confirmed EoE who had received an induction regimen and continued therapy long-term. The final dataset comprised 9 randomized controlled trials (RCTs) and 11 observational studies, with long-term outcomes reported among 1819 patients.

The primary outcome was histologic success, defined as fewer than 15 or 6 eosinophils per high-power field (HPF). Secondary outcomes included clinical and endoscopic response, treatment adherence, and safety events.

Random-effects meta-analyses were performed, with randomized trials and observational studies analyzed separately. Risk ratios (RR) for sustained remission versus placebo or induction therapy were calculated, and heterogeneity was assessed using the I^2 statistic. Safety outcomes included pooled rates of adverse events, severe adverse events, and treatment discontinuation.

Across 9 randomized controlled trials, swallowed topical corticosteroids (STCs) maintained histologic remission (less than 15 eosinophils/HPF) in 86% of patients, while biologics achieved a rate of 79%. At the stricter threshold of less than 6 eosinophils/HPF, remission rates for STCs and biologics were 59% and 70%, respectively.

Clinical remission rates were lower, at 58% for STCs and 59% for biologics. Endoscopic outcomes were less consistently reported, but most trials showed stable or improved scores during long-term treatment.

In observational cohorts, proton

pump inhibitors (PPIs) maintained histologic remission in 64% of patients and clinical remission in 80%. For STCs in the real-world setting, histologic and clinical remission rates were 49% and 51%, respectively.

Stepping down the dose of maintenance therapy — whether conventional or biologic — did not increase relapse risk (RR 1.04; 95% CI, 0.72-1.51). In contrast, treatment withdrawal was clearly associated with higher relapse rates: In pooled analyses, continuing therapy yielded nearly an eightfold greater likelihood of sustained remission compared with discontinuation (RR 7.87; 95% CI, 4.19-14.77).

Safety signals were favorable. Severe adverse events occurred in 3% of patients in randomized trials and 5% in observational studies, while overall withdrawal rates were 10% and 4%, respectively. The most common adverse events with STCs were oropharyngeal candidiasis and reductions in morning cortisol, while biologics

Continued on following page



Dr. Barchi

Document Reconciles Differences

Guideline from page 1

around the world collaborated on the consensus project. The team reviewed 61 eligible documents published between 2018 and January 2025. Each guideline was evaluated across eight domains: epidemiology; screening; risk stratification using noninvasive tests (NITs); lifestyle management; treatment with existing medications; treatment with future medications; hepatocellular carcinoma (HCC) and preventive guidance; and pregnancy and pediatric populations.

Areas of discordance were advanced to a Delphi process using

iterative online surveys, with a supermajority threshold of 67% required for acceptance. Four Delphi rounds were conducted, and by the end, all statements had achieved more than 90% agreement. The final recommendations were then summarized into practical algorithms for clinical use.

The results cover the full spectrum of MASLD care. For screening and diagnosis, experts agreed that individuals with type 2 diabetes, obesity plus cardiometabolic risk factors, or persistently elevated aminotransferases should

be considered high risk. Alcohol thresholds were standardized, clarifying when to classify disease as MASLD, alcohol-related liver disease [ALD], or the hybrid “Met-ALD.”

For risk stratification, the panel endorsed a two-step algorithm beginning with the Fibrosis-4 (FIB-4) index, followed by vibration-controlled transient elastography (VCTE) or other NITs in patients above the threshold. This approach, the authors noted, was designed to be feasible in both primary care and specialty settings.

Lifestyle intervention remains the cornerstone of treatment, with weight-loss goals of 5% to reduce steatosis, 7%-10% to reduce inflammation, and at least 10% to improve fibrosis. To this end, the panel recommended a Mediterranean-style diet, increased physical activity, and reductions in sedentary time.

Drug therapy recommendations prioritized GLP-1RAs and SGLT2 inhibitors for patients with diabetes or obesity, though these were not considered MASH-specific agents. Pioglitazone was noted as an option for diabetes management but not as direct MASH therapy. The panel did not recommend vitamin E, ursodeoxycholic acid, or

omega-3 fatty acids, citing insufficient evidence.

The document also provides structured guidance on resmetirom, the first FDA-approved therapy for MASH. Its use was endorsed in patients with F2–F3 fibrosis confirmed by NITs, with safety checks at 3, 6, and 12 months, and efficacy evaluation after 1 year. Treatment futility was defined as concordant worsening across two NITs.

Preventive recommendations included hepatitis A and B vaccination and HCC surveillance every 6 months in patients with cirrhosis. Surveillance in noncirrhotic MASH was left to clinician judgment, based on individualized risk factors. Special considerations were outlined for pediatric and pregnant populations, although the evidence base in these groups remains sparse.

“Further research is required to determine the effectiveness of this algorithm in raising awareness of MASLD and its treatment,” Dr. Younossi and colleagues concluded.

The study was supported by the Global NASH/MASH Council, Inova Health System, and an unrestricted educational grant from Madrigal Pharmaceuticals. The investigators disclosed relationships with Sanofi, Gilead, AstraZeneca, and others. ■

The new consensus MASLD recommendations should help reconcile the “important differences” between guidelines from around the world, said Jaideep Behari, MD, PhD, AGAF, of the the University of Pittsburgh Medical Center.

Behari highlighted several points that may be underappreciated in clinical practice. “While many clinicians associate MASLD with obesity and type 2 diabetes, approximately a fifth of people living with MASLD are lean,” he said. “It may also come as a surprise to non-liver specialists that cardiovascular disease is the most common cause of mortality in patients with MASLD.”

He underscored the consensus recommendation to screen patients with type 2 diabetes, those with obesity and at least one cardiometabolic risk factor, and individuals with persistently elevated liver enzymes.

“Since many patients in the first two groups are mainly seen in primary care or endocrinology practices, physicians in these specialties need to be cognizant of these global consensus recommendations,” Behari said.

Turning to therapeutics, Behari described resmetirom as “a major milestone in the management of MASLD since it is the first drug approved in the US for treatment of MASH with F2 (moderate) or F3 (advanced) fibrosis.”



Dr. Behari

He noted that treatment requires careful patient selection and monitoring, including VCTE in the 8- to 20-kPa range, followed by serial liver injury testing.

Efficacy should be assessed at 12 months, he noted, since “resmetirom was found to be effective in approximately a quarter of all treated patients in the pivotal clinical trial.”

“These limitations highlight the gaps in the treatment of MASLD/MASH and the need to continue development of other therapies,” Behari said.

Dr. Behari is director of the liver steatosis and metabolic wellness program at the University of Pittsburgh Medical Center in Pennsylvania. He reported research grant support from AstraZeneca and Madrigal, and recently completed research grant support from Gilead and Pfizer.

Continued from previous page

were mainly associated with injection-site reactions, headache, and nasopharyngitis.

“Results suggest that prolonging treatment is efficient in maintaining histologic and clinical remission, with overall drug-related safety profiles both in randomized trials and

observational studies,” the investigators concluded, noting that more work is needed to determine if there is an optimal drug for maintenance therapy, and if certain patients can successfully discontinue treatment.

The investigators disclosed relationships with Pfizer, UCB Pharma, AstraZeneca, and others. ■

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How IBS Disrupts Daily Life: AGA Survey

BY MEGAN BROOKS

MDedge News

Despite more treatments and heightened awareness, Americans with irritable bowel syndrome (IBS) report worsening impacts on work, home, and social life compared with a decade ago.

A new survey from AGA, in

partnership with The Harris Poll, revealed that IBS symptoms interfere with people's lives an average of 19 days each month — about 11 days affecting work or school and 8 days curtailing personal activities.

Missed work or school has climbed to 3.6 days per month from 2.1 days in 2015 — the last

time the AGA released the “IBS in America” survey. And more patients report spending less time with family and friends because of their symptoms (58% now, up from 48% in 2015).

The latest survey was conducted in fall 2024 among more than 2000 patients with IBS and 600 healthcare providers, including

gastroenterologists, primary care physicians, and advanced practitioners.

Stark Realities of Life With IBS

Fewer patients in 2024 described their IBS symptoms as very or extremely bothersome (43%, compared to 62% in 2015), yet three quarters said it's tough to manage their symptoms and most can't accurately predict whether they will experience symptoms on a given day.

All this affects patients' willingness or ability to make plans. More than three quarters (77%) said they avoid situations where bath-

‘The AGA ‘IBS in America’ survey sheds light on patients who are still not being offered a variety of treatments that could provide them with a better quality of life.’

room access is limited, and nearly that many (72%) said their symptoms cause them to stay home more often.

About 7 in 10 patients said their IBS symptoms make them feel like they're not “normal” or that their symptoms prevent them from reaching their full potential.

“The findings of this survey underscore the persistent challenges and impact IBS has on patients' lives,” said Andrea Shin, MD, gastroenterologist with UCLA Health, Los Angeles, and AGA patient education adviser.

“Despite progress in the medical community's approach to diagnosing and managing IBS, patients continue to suffer significant disruptions to their personal and professional lives,” Shin noted.

How Is IBS Treated?

Treatment options for IBS have evolved over the last decade or so and now include several FDA-approved agents, such as plecanatide (Trulance) and tenapanor (Ibsrela) for IBS with constipation (IBS-C) and rifaximin (Xifaxan) and eluxadoline (Viberzi) for IBS with diarrhea (IBS-D).

According to patients who have tried them, prescription medications are among the most helpful

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Risks of Relying on AI Debated

Skills from page 1

Lancet Gastroenterology & Hepatology (2025 Aug. doi: 10.1016/S2468-1253[25]00133-5).

ADR Reduced After AI Use

To assess how endoscopists who used AI regularly performed colonoscopy when AI was not in use, researchers conducted a retrospective, observational study at four endoscopy centers in Poland taking part in the ACCEPT trial.

These centers introduced AI tools for polyp detection at the end of 2021, after which colonoscopies were randomly assigned to be done with or without AI assistance.

The researchers assessed colonoscopy quality by comparing two different phases: 3 months before and 3 months after AI implementation. All diagnostic colonoscopies were included, except for those involving intensive anticoagulant use, pregnancy, or a history of colorectal resection or inflammatory bowel disease.

The primary outcome was the change in the ADR of standard, non-AI-assisted colonoscopy before and after AI exposure.

Between September 2021 and March 2022, a total of 2177 colonoscopies were conducted, including 1443 without AI use and 734 with AI. The current analysis focused on the 795 patients who underwent non-AI-assisted colonoscopy before the introduction of AI and the 648 who underwent non-AI-assisted colonoscopy after.

Participants' median age was 61 years, and 59% were women. The colonoscopies were performed by 19 experienced endoscopists who had conducted over 2000 colonoscopies each.

The ADR of standard colonoscopy decreased significantly from 28.4% (226 of 795) before the introduction of AI to 22.4% (145 of 648) after, corresponding to a 20% relative and 6% absolute reduction in the ADR.

The ADR for AI-assisted

colonoscopies was 25.3% (186 of 734).

The number of adenomas per colonoscopy (APC) in patients with at least 1 adenoma detected did not change significantly between the groups before and after AI exposure, with a mean of 1.91 before vs 1.92 after. Similarly, the number of mean advanced APC was comparable between the two periods (0.062 vs 0.063).

The mean advanced APC detection on standard colonoscopy in patients with at least 1 adenoma detected was 0.22 before AI exposure and 0.28 after AI exposure.

Colorectal cancers were detected in 6 (0.8%) of 795 colonoscopies before AI exposure and in 8 (1.2%) of 648 after AI exposure.

In multivariable logistic regression analysis, exposure to AI (odds ratio [OR], 0.69), patient's male sex (OR, 1.78), and patient age at least 60 years (OR, 3.60) were independent factors significantly associated with ADR.

'Although AI continues to offer great promise to enhance clinical outcomes, we must also safeguard against the quiet erosion of fundamental skills required for high-quality endoscopy.'

In all centers, the ADR for standard, non-AI-assisted colonoscopy was reduced after AI exposure, although the magnitude of ADR reduction varied greatly between centers, according to the authors.

"Clinicians should be aware that while AI can boost detection rates, prolonged reliance may subtly affect their performance when the technology is not available," Budzyn and Romańczyk said. "This does not mean AI should be avoided

— rather, it highlights the need for conscious engagement with the task, even when AI is assisting. Monitoring one's own detection rates in both AI-assisted and non-AI-assisted procedures can help identify changes early."

"Endoscopists should view AI as a collaborative partner, not a replacement for their vigilance and judgment," they concluded. "Integrating AI effectively means using it to complement, not substitute, core observational and diagnostic skills. In short, enjoy the benefits of AI, but keep your skills sharp — your patients depend on both."

Omer Ahmed, MD, of University College London in England, gives a similar message in a related editorial within the same issue of the journal (2025 Aug. doi:10.1016/S2468-1253[25]00164-5). The study "compels us to carefully consider the effect of AI integration into routine endoscopic practice," he wrote. "Although AI continues to offer great promise to enhance clinical outcomes, we must also safeguard against the quiet erosion of fundamental skills required for high-quality endoscopy."

'Certainly a Signal'

Commenting on the study for *GI & Hepatology News*, Rajiv Bhuta, MD, assistant professor of clinical gastroenterology and hepatology at Temple University and a gastroenterologist at Temple University Hospital, both in Philadelphia, said, "On the face of it, these findings would seem to correlate with all our lived experiences as humans. Any skill or task that we give to a machine will inherently 'de-skill' or weaken our ability to perform it."

"The only way to miss a polyp is either due to lack of attention/recognition of a polyp in the field of view or a lack of fold exposure and

cleansing," said Bhuta, who was not involved in the study. "For AI to specifically de-skill polyp detection, it would mean the AI is conditioning physicians to pay less active attention during the procedure, similar to the way a driver may pay less attention in a car that has self-driving capabilities."

That said, he noted that this is a small retrospective observational

'The question is not whether AI will de-skill us but when, where, and how do we set the boundaries of what we want a machine to do for us. What is lost and what is gained by AI taking over these roles?'



Dr. Bhuta

study with a short timeframe and an average of fewer than 100 colonoscopies per physician.

"My own ADR may vary by 8% or more by random chance in such a small dataset," he said. "It's hard to draw any real conclusions, but it is certainly a signal."

The issue of de-skilling goes beyond gastroenterology and medicine, Bhuta noted.

"We have invented millions of machines that have 'de-skilled' us in thousands of small ways, and mostly, we have benefited as a society," he said. "However, we've never had a machine that can de-skill our attention, our creativity, and our reason."

"The question is not whether AI will de-skill us but when, where, and how do we set the boundaries of what we want a machine to do for us," he said. "What is lost and what is gained by AI taking over these roles, and is that an acceptable trade-off?"

The study was funded by the European Commission and the Japan Society for the Promotion of Science. Budzyn, Romańczyk, and Bhuta declared having no competing interests. Ahmed declared receiving medical consultancy fees from Olympus, Odin Vision, Medtronic, and Norgine. ■

Continued from previous page

treatments (18% for IBS-C and 19% for IBS-D).

Yet, clinicians tend to prioritize fiber, nonprescription laxatives, and exercise for IBS-C, and diet changes, antidiarrheals, and probiotics for IBS-D, over prescription medications, the survey found.

Nonetheless, about 78% of patients reported being satisfied with what they take for their symptoms, with about one quarter very satisfied.

Compared to 10 years ago, more physicians in the latest survey said effective relief of abdominal pain (49% vs 39%) or diarrhea/constipation (47% vs 33%) and the

availability of treatment options (49% vs 34%) are what is most lacking in IBS treatment today, despite advancements in the IBS treatment landscape.

"IBS is a condition that continues to challenge patients to find a treatment that consistently works for them," said Jeffrey Roberts, founder of the IBS Patient Support Group

community and World IBS Day.

"The AGA 'IBS in America' survey sheds light on patients who are still not being offered a variety of treatments that could provide them with a better quality of life. This continues to result in disruptions to their career, schooling, and life with their families and friends," Roberts added. ■