



# **EVIDENCE-BASED GI**

AN ACG PUBLICATION

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# EVIDENCE-BASED GI

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## A Look at the Updated ACG Eosinophilic Esophagitis Clinical Guidelines



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This summary reviews Dellon E, Muir A, Katzka D, et al. ACG Clinical Guideline: Diagnosis and Management of Eosinophilic Esophagitis. Am J Gastroenterol 2025;120(1):31-59.

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Keywords: Eosinophilic esophagitis; guideline; RCT

### STRUCTURED ABSTRACT

**Questions:** What is the appropriate diagnostic evaluation of eosinophilic esophagitis (EoE)? What are the pharmacologic and non-pharmacologic therapies for disease management? How do we assess treatment response and ongoing disease monitoring, as well as pediatric-specific considerations for disease management?

**Design:** The Patient Intervention Comparison and Outcomes (PICO) format was used to develop key questions of clinical relevance to be addressed in the guideline. A health services librarian performed literature searches of PubMed (MEDLINE), EMBASE, and the Cochrane Library. GRADE methodology was used to assess benefits and risks of therapies. For clinically relevant topics that were not amenable to formal evidence-based recommendations, key concepts based on expert consensus were presented.

**Patients:** Adults and children with EoE.

**Recommendations:**

*Diagnostic testing:* symptoms of esophageal dysfunction and at least 15 eosinophils per high-power field (eos/hpf) on esophageal biopsy, exclusion of alternate causes of esophageal eosinophilia, use of EoE Endoscopic Reference Score (EREFS) to assess endoscopic findings, and histologic evaluation with quantified eosinophil count from 6 targeted biopsies from 2 esophageal levels.

*Management:* a) shared decision making to select first line dietary (empiric food elimination diet (FED) starting with 1-FED or 2-FED) or pharmacologic (PPI or topical steroids [Budesonide, Fluticasone]) therapy, Dupilumab for PPI non-responsive and step-up therapy; b) dilation therapy in addition to antiinflammatory treatment as needed; c) Monitor response to therapy, continue maintenance dietary or pharmacologic treatment.

*Pediatrics:* Esophagram in pediatric patients with dysphagia, adjunct therapy with feeding therapist/dietician to help manage feeding dysfunction.

**Outcome:** Accurate diagnosis, patient-specific management, and optimal disease monitoring of EoE in adult and pediatric populations.

**Data Analysis:** The GRADE process was used to formulate the quality of evidence and the strength of recommendation for each question, based on study design, efficacy, and risks vs. benefits. When the evidence was not appropriate for the GRADE process, an expert consensus approach was used to formulate key concepts statement. The GRADE process uses 2 types of guideline recommendations:

*Strong Recommendation:* Physicians or providers should recommend this intervention for most patients. A strong recommendation is usually accompanied by High or Moderate Level of Evidence from well-designed randomized controlled trials (RCTs) or RCTs with mild methodologic limitations.

*Conditional Recommendation/Suggestion:* Many physicians or providers might suggest this therapy or diagnostic test, while other physicians or providers would not suggest this intervention in similar patients. Conditional recommendations/suggestions are usually accompanied by Low quality or Very Low quality of evidence from studies without a comparator arm or placebo for comparison.

**Funding:** The American College of Gastroenterology.



**Summary:** Selected guidelines and strength of recommendation are listed in **Table 1**.

In the Key Concepts section, the guideline authors suggest eliciting a careful history of symptoms of esophageal dysfunction including dietary avoidance and modification behaviors, as well as atopic and family history of EoE. Initial diagnostic endoscopy should be performed off PPI, dietary restrictions, and medications including intranasal or inhaled steroids for rhinitis/sinusitis/asthma as these can all result in a false negative exam. When possible, it is recommended to obtain additional histologic information other than eosinophil count such as basal cell hyperplasia, dilated intercellular spaces and lamina propria fibrosis, even in the absence of eosinophilia. Physicians should also consider assessing baseline disease severity with I-SEE.

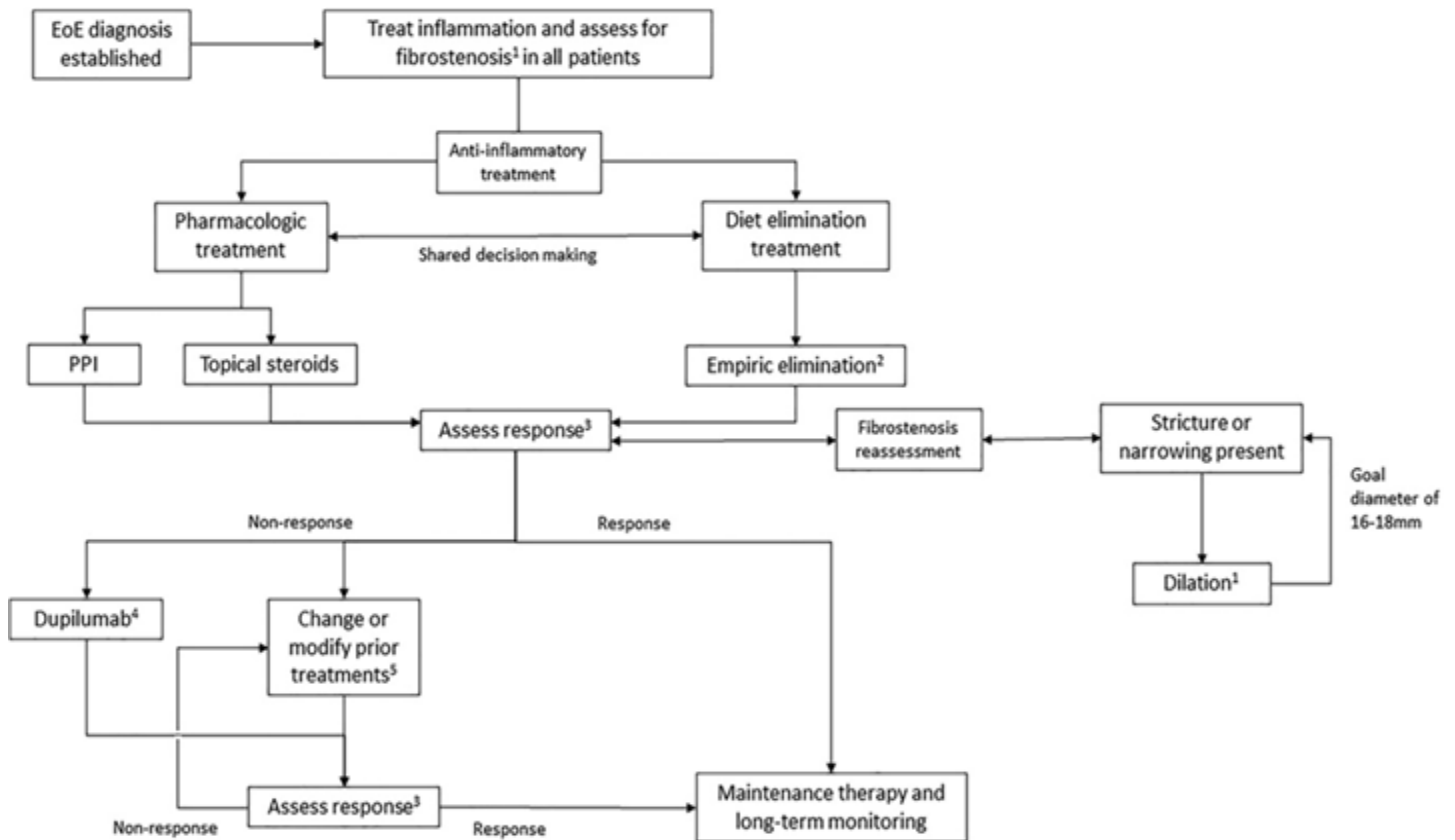
For treatment (**Figure 1**), high dose PPI therapy is advised along with counseling for rational PPI use in EoE. For topical steroids, either budesonide (oral suspension or orodispersible tablet) or fluticasone can be used, and best administered after meals or before bedtime with nothing by mouth 30-60 minutes after. For children a slurry or suspension is preferred over an inhaler device for ease of use. If dietary therapy is chosen, consider starting with a least restrictive diet such as 1-FED or 2-FED in collaboration with a dietitian or nutritionist. Response to dietary therapy should be assessed with endoscopy and biopsy rather than symptoms alone. Dupilumab is an option for patients who are treatment-resistant to initial therapies, and also those with multiple atopic conditions. Dilation therapy is also available and can be used concomitantly with anti-inflammatory treatment.

After treatment initiation, the disease should be monitored not just by symptoms alone as symptoms do not reliably correlate with endoscopic/histologic findings. Histologic response of  $<15$  eos/hpf can be considered as successful and patients should be maintained on the initial therapy after histologic remission is achieved due to the chronicity of the disease. While clinically significant adrenal insufficiency is unlikely with chronic topical steroids, physicians can choose to monitor for this condition in certain patients. In pediatric patients, growth, development, and nutritional parameters are additional treatment goals.

| Statement   | Quality of Evidence | Strength of Recommendation |
|---|---------------------|----------------------------|
| <b>Diagnosis</b>  |                     |                            |
| 1. EoE should be diagnosed based on symptoms of esophageal dysfunction and at least 15 eos/hpf on biopsy, after ruling out other causes of esophageal eosinophilia. | Low                 | Strong                     |
| 2. Use a systematic endoscopic scoring system (e.g., EoE Endoscopic Reference Score) to characterize endoscopic findings of EoE at every endoscopy.                 | Low                 | Strong                     |
| 3. Obtain at least six esophageal biopsies from at least two levels (proximal, mid, and distal), targeting endoscopic findings when possible.                       | Low                 | Strong                     |
| 4. Eosinophil counts should be quantified on esophageal biopsies from every endoscopy performed for EoE.  | Low                 | Strong                     |
| <b>Treatment</b>  |                     |                            |
| <b>PPIs</b>   |                     |                            |
| 5. Suggest PPIs as a treatment for EoE.   | Low                 | Conditional                |
| <b>Topical Steroids</b>   |                     |                            |
| 6. Recommend swallowed topical steroids as a treatment for EoE.   | Moderate            | Strong                     |
| 7. Suggest using either fluticasone propionate or budesonide for EoE treatment.   | Low                 | Conditional                |
| <b>Dietary Elimination</b>  |                     |                            |
| 8. Suggest empiric food elimination diet as a treatment for EoE.  | Low                 | Conditional                |
| 9. Do not suggest allergy testing to guide food elimination diets for EoE treatment.  | Very Low            | Conditional                |
| <b>Biologics</b>  |                     |                            |
| 10. Suggest dupilumab for EoE in individuals 12+ years old who are nonresponsive to PPI therapy.  | Moderate            | Conditional                |
| 11. Suggest dupilumab for pediatric patients (ages 1–11) who are nonresponsive to PPI therapy.  | Low                 | Conditional                |
| <b>Small Molecules</b>  |                     |                            |
| 14. Suggest using cromolyn and montelukast for EoE treatment.   | Low                 | Conditional                |
| <b>Esophageal Dilation</b>  |                     |                            |
| 15. Suggest endoscopic dilation as an adjunct to medical therapy for strictures in EoE.   | Low                 | Conditional                |
| <b>Maintenance Therapy</b>  |                     |                            |
| 16. Suggest effective dietary or pharmacologic therapy for EoE to prevent recurrence of symptoms, histologic inflammation, and endoscopic abnormalities.            | Low                 | Strong                     |
| <b>Monitoring and Evaluation of Response</b>  |                     |                            |
| 17. Recommend evaluating treatment response using symptom assessment, endoscopy, and histologic outcomes.   | Low                 | Strong                     |
| <b>Pediatric-Specific Considerations</b>  |                     |                            |
| 18. In children with EoE and dysphagia, use esophagram to evaluate for fibrostenotic disease.   | Very Low            | Conditional                |
| 19. Suggest evaluation by a feeding therapist and/or dietician as an adjunctive intervention in children with EoE and feeding dysfunction.                          | Very Low            | Conditional                |

**Table 1.** Eosinophilic Esophagitis (EoE) guideline recommendations. PPI, proton pump inhibitors.





**Figure 1.** Management algorithm for eosinophilic esophagitis.

1. Anti-inflammatory treatment is needed in all patients even if dilation is performed. Dilation can be considered prior to concomitant anti-inflammatory treatment if a critical stricture is present.
2. Consider less restrictive diet elimination to start.
3. Response should be assessed with symptoms, endoscopic findings with EREFS, and histologic features including quantified eosinophil count on esophageal biopsy.
4. Patients receiving dupilumab generally should be proton pump inhibitor (PPI) non-responders or intolerant to PPI; consider early use of dupilumab if moderate to severe asthma or eczema is present and after relevant subspecialist consultation.
5. Could include changing medication, dose, or formulation, moving to a more restrictive diet, or considering a clinical

## COMMENTARY

### Why Is This Important?

This guideline is an update to the 2013 ACG EoE Guidelines.<sup>1</sup> During this time there have been significant changes in disease diagnosis and management, increases in knowledge about EoE risk factors, natural history, and pathogenesis, development of validated outcome metrics, a disease severity classification

system, and updated nomenclature. An important distinction from the prior version of the guidelines was the elimination of a failure of proton-pump inhibitor (PPI) trial for the diagnosis of EoE. There have also been major advances in therapeutic options including 2 topical steroid treatments, a biologic (dupilumab), and a larger body of data

for dietary therapy.

## Key Study Findings

The ACG guidelines for EoE emphasize diagnosis based on symptoms of esophageal dysfunction, biopsy findings ( $\geq 15$  eosinophils per high-power field), and exclusion of other causes. Endoscopic assessment using the EoE Endoscopic Reference Score (EREFS)<sup>2</sup> is recommended.

Treatment involves shared decision-making, with first-line options including dietary elimination (starting with less restrictive approaches) or pharmacologic therapy (PPI or topical steroids). Endoscopic dilation is advised for strictures but should be combined with anti-inflammatory treatment.

Maintenance therapy is necessary to prevent recurrence, and pediatric considerations include evaluation with esophagram in the setting of dysphagia and adjunctive feeding therapy for children with feeding dysfunction.

## Caution

The Key Concepts highlighted in these guidelines are practical suggestions and not supported by extensive evidence. Thus, they serve as suggested preferable approaches for caring for patients with EoE and need to be applied in a patient-specific manner.

## My Practice

My approach to caring for EoE patients is consistent with what is outlined in the

updated guideline. While I typically assess for symptoms of esophageal dysfunction outlined in the IMPACT behaviors (**I**mbibe fluids, **M**odify foods, **P**rolong meal times, **A**void hard texture foods, **C**hew excessively, **T**urn away tablets/pills), this guideline lists these behaviors in a way that is easy to incorporate into clinical practice. For the initial diagnosis, in patients who I suspect have EoE or would like to rule out EoE, I perform upper endoscopy with proximal and distal esophageal biopsies, with patients off of PPI or dietary restriction so as to minimize risk of false negatives. I typically have not had patients discontinue anti inflammatory nasal or sinus medications they are taking, but based on the suggestion in the key concepts section, I will recommend discontinuing these medications prior to initial diagnostic exam. I do document endoscopic findings using the EREFS scoring system and obtain 6 targeted biopsies from two different levels in the esophagus and place them in separate jars. Based on these guidelines, I will also attempt to grade the severity of EoE at baseline and subsequent visits using the Index of Severity for EoE (I-SEE)<sup>3</sup> metric.

Once the diagnosis of EoE has been established, I typically start with high dose PPI therapy as the initial management step, followed by an EGD with biopsies in about 8-12 weeks to assess for treatment response. In patients who are non-responsive to PPI therapy, I utilize a shared decision making model to determine whether to use dietary or

pharmacologic treatment. When using dietary elimination, I typically do start with the least restrictive diet either one or two food elimination (with wheat and dairy being the most common triggers) and always try to enlist ongoing support from a dietician or nutritionist as available. I do not direct food elimination therapy based on skin allergy testing given the inaccuracy of available allergy testing in the context of EoE, which is a delayed-type hypersensitivity lymphocyte-driven type 2 immunity; however, I do collaborate with colleagues specializing in allergy and immunology when caring for EoE patients through a multidisciplinary approach.

If pharmacologic therapy is chosen, then I typically start with topical steroids as the first line and employ a step-up approach. In patients with other atopic conditions in addition to EoE or those with a severe fibrostenotic phenotype, I may opt for dupilumab as the initial choice. I also take into account patient preferences, priorities, lifestyle, and predictors of adherence to help determine treatment choice with the ultimate goal of successful long term management of EoE. For patients with initial response to treatment documented by histologic remission on an endoscopy performed 8-12 weeks later or 12-24 weeks for dupilumab, I will continue maintenance therapy with repeat endoscopy about a year or so later to ensure sustained remission in the absence of symptoms that would trigger an earlier exam such as a food impaction or need for dilation therapy.

## For Future Research

As noted by the authors, some key research gaps include the need for comparative effectiveness studies for first line EoE treatments and identification of predictors of treatment response to personalize therapy. Research is also needed to define phenotypes and endotypes linked to fibrostenosis, improve noninvasive disease monitoring, and methods to identify food triggers. The I-SEE framework requires studies to align disease severity with treatment strategies. Quality indicators to reduce diagnostic delays and optimize management are essential. The pipeline for EoE therapeutics is expanding, with multiple novel agents under investigation, and there is a future need for positioning of these emerging therapies in the EoE treatment algorithm.

## Conflict of Interest

The author has no disclosures.

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# Cold Endoscopic Mucosal Resection of Polyps >10 mm



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COLON

This summary reviews Williams TJ, Mickenbecker M, Smith N, et al. Efficacy of cold piecemeal EMR of medium to large adenomas compared with sessile serrated lesions. *Gastrointest Endosc.* 2025 Jan;101(1):178-183.

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Keywords: cold snare, endoscopic mucosal resection, serrated polyps, colonoscopy

## STRUCTURED ABSTRACT

**Question:** How does cold Endoscopic Mucosal Resection (C-EMR) of serrated polyps compare to adenomatous polyps with respect to efficacy and safety?

**Design:** Retrospective cohort study.

**Setting:** Single academic center in Australia

**Patients:** Patients were included if they had a flat (Paris IIa) colorectal polyp which was 10 mm or larger and resected with C-EMR technique between February 1, 2018, and June 30, 2021. Exclusion criteria included previous EMR attempts or adenocarcinoma on histology. Patients were also excluded if they had not undergone surveillance colonoscopy after EMR.

**Exposure:** C-EMR was performed on all polyps using a succinylated gelatin and indigo carmine injectate without epinephrine. After lifting, each lesion was resected in a piecemeal fashion. The investigators employed resections which ensured a 5- to 7-mm rim of normal tissue. As was standard at the institution, snare-tip soft coagulation of defect margins was not performed.

**Outcomes:** The primary outcome was polyp recurrence at first surveillance colonoscopy (SC1) which was performed at 6 months post-EMR. The secondary outcomes were adverse events, including bleeding, post-polypectomy syndrome, or perforation.

**Data Analysis:** Fisher's exact test was used to examine association between categorical variables and outcomes.

**Funding:** None.

**Results:** There were 242 colorectal polyps (10-50 mm in size) which were all removed by piecemeal C-EMR in 151 patients. In the sample, there were 147 sessile serrated polyps (SSPs) and 95 adenomas resected in 151 patients. The recurrence rates at the 6-month follow-up were 3.0% (1/33) for adenomas and 1.4% (1/73) for SSPs ( $P = 0.5$ ) which were 10- to 19-mm in size. The recurrence rates for lesions  $\geq 20$  mm were 16.1% (10/62) for adenomas and 4.1% (3/74) for SSPs ( $P = 0.02$ ).

## COMMENTARY

### Why Is This Important?

While hot snare can resect a larger amount of polyp tissue to ensure adequate resection, this method is associated with a high rate of complications such as perforation and delayed bleeding. The use of cold snare has been shown to decrease the risk of adverse events including delayed bleeding, perforation and post polypectomy syndrome.<sup>1</sup> Cold snare technique is the preferred technique for resecting most

polyps. The USMSTF guidelines recommend cold snare resection for polyps  $< 10$  mm in size.<sup>2</sup> Cold snare technique should also be strongly considered for serrated and adenomatous polyps 11-19 mm size and potentially considered for polyps 20 mm or larger. Thus, data examining efficacy and safety of cold snare can help endoscopists choose the best resection methods for polyps in their patients.



## Key Study Findings

The investigators observed a low rate of recurrence for adenomatous and serrated polyps 11-19 mm as well as SSP's 20 mm or larger.<sup>3</sup> There was a high rate of recurrence for adenomatous lesions 20 mm or larger. In addition, there were no adverse events including intra-procedural bleeding. This is an interesting observation considering that the authors did not use epinephrine.

## Caution

The authors and the accompanying editorial correctly point out the potential bias introduced by several factors including the retrospective design and the percentage of patients lost to follow up or whose polyp scar could not be located.<sup>3</sup> In addition, all of the polyps were resected with EMR which involves injection of a solution into the submucosa. While the low rates of recurrence and adverse events in this study support the use of C-EMR for polyps 11-19 mm, the study does not address whether submucosal injection is necessary to achieve adequate resection.

## My Practice

My preference is to use cold snare for all lesions smaller than 20 mm. While, I always attempt en bloc resection for lesions < 10 mm with virtually universal success, I often choose a piecemeal approach for larger lesions, in part to avoid “snare stall” when snaring too much submucosa.<sup>1, 4, 5</sup> When employing the piecemeal method, it is important

for the endoscopist to include, on the initial resection attempt, a wide margin of normal tissue of 5 mm or larger. For the additional resections, the endoscopist should snare a similar margin of the exposed submucosa in the developing mucosal defect. The use of the water jet, to elevate the residual polyp, can help the tissue “pop up” through the snare ensuring that the snare is cutting in the submucosal plane. When finished, it is important to inspect the resection rim to ensure that the remaining tissue is normal or has a Kudo Type I pit pattern. In addition, endoscopists should make sure that the remaining submucosal defect has no polyp residual. Any residual polyp can be removed with cold snare or cold avulsion. With respect to submucosal injection, my preference is to not use it for lesions 11-19 mm unless I have difficulty with visualization of the margins. For larger lesions, especially serrated polyps, C-EMR can be useful for delineating the margins. Again, piecemeal approach, as highlighted above, should be used when resecting these larger lesions. Finally, it should be noted that some polyps 11-19 mm require hot snare resection including those that are pedunculated, bulky, or have a morphology or Kudo Type V pit pattern which is predictive of cancer. In addition, since cold snare has the highest recurrence rates, I might choose that method versus hot snare in patients who are more likely to be compliant with follow colonoscopies.

## For Future Research

A major issue that needs to be addressed is



the utility of submucosal injection for polyps 10 mm or larger. Published data have demonstrated that submucosal injection is not necessary for lesions < 10 mm in order to achieve adequate resection.<sup>6</sup> I participated in a trial comparing resection of 6-15 mm polyps with hot and cold snare and H- and C-EMR. We observed that cold snare had no incomplete resections, required less procedural time than the other methods, and was not associated with any serious adverse events.<sup>7</sup> However, for many larger lesions, especially those 20 mm or larger, the utility of submucosal injection is unclear. Furthermore the efficacy of cold snare for polyps 20 mm or larger requires further investigation. In this study the rate for recurrence of adenomas  $\geq$  20 mm was 16.1% which is similar to findings from the recently published CHRONICLE trial.<sup>8</sup> It might be that employing a method using a wide resection would provide the best rates of resection.

### Conflict of Interest

The authors have no reported conflicts of interest.

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# Safety and Tolerability of Medications for Alcohol Use Disorder



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This summary reviews Shenoy A, Jasty FS, Uttal S, et al. Medications for Alcohol Use Disorder Are Increasingly Being Prescribed in American Patients With Advanced Liver Disease. *Am J Gastroenterol* 2025; doi: 10.14309/ajg.0000000000003328.

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**Keywords:** alcohol use disorder; adverse events; alcohol-related hepatitis

## STRUCTURED ABSTRACT

**Question:** What is the safety and tolerability of various FDA-approved medications for alcohol use disorder (AUD) among patients with mild versus severe alcohol-related liver disease (ALD)?

**Design:** Retrospective cohort study of adult patients who were diagnosed with AUD and ALD using *International Classification of Diseases, Ninth or Tenth Revision (ICD-9/10)* codes and received naltrexone, acamprosate, or disulfiram. Patients were stratified into 2 cohorts: A) Advanced alcohol-associated cirrhosis or alcohol-associated hepatitis, B) Mild ALD. Mild ALD was defined by lack of jaundice or coagulopathy. Cirrhosis was determined by a biopsy, imaging, decompensating event, or clinical criteria based on imaging, FibroScan, varices, or biochemical parameters defined in the supplemental appendix. Clinical data were collected at 3 time points: 6 months prior to initiation of AUD treatment, during treatment and 6 months after completion of AUD treatment.

**Setting:** University of Michigan Health System from January 2013 to January 2023.

**Patients:** Records were screened utilizing *ICD-9* and *ICD-10* codes for alcohol-associated liver disease. Patients were excluded if therapy for AUD was not started, patients declined treatment, exposure to treatment was less than 1 month, history of liver transplant, lost to follow-up, missing data.

**Intervention:** The intervention was receipt of 1 of 3 FDA-approved medications for AUD.

**Outcome:** The outcomes were the percentage of patients who remained on AUD medication, completed treatment with sustained sobriety, or discontinued treatment due to adverse effects.

**Data analysis:** Chi-square analysis with Pearson's test and Wilcoxon-ranked sum test were used to compared dichotomous and continuous variables, respectively.

**Funding:** Support from Kezar Pharmaceuticals and Takeda Pharmaceuticals.

**Results:** A total of 213 patients were included with 112 patients in cohort A and 101 patients in cohort B. Majority of patients (88%) were White, 50% were female, and the median age was 51 years. Most patients were privately insured (54%).

Patients in the mild liver disease group had significantly lower MELD 3.0: 7 compared to the advanced group (MELD 3.0: 11). Similarly, prior to initiation of AUD treatment, patients with advanced disease had significantly higher bilirubin, INR, and lower albumin and ALT compared to the mild disease group. While on treatment, there were no differences in peak serum AST, total bilirubin, or albumin. Of the entire cohort, naltrexone, acamprosate and disulfiram were prescribed in 65%, 26% and 9%, respectively.

In 77% of cases, AUD medication was prescribed in the outpatient setting by an Internal Medicine provider, and least likely to be prescribed in the Emergency Department setting (1.9%). Patients in the advanced liver disease group were more likely to have concurrent use of an anxiolytic but less likely to be enrolled in an AUD behavioral program as compared to the mild liver disease group.

Over a 10-year period, there were significant increases in use of AUD medications in both the advanced and mild liver disease cohorts,  $P=0.012$  and  $P=0.016$ , respectively (**Figure 1**). The most prescribed medication for AUD was naltrexone (65%), followed by acamprosate (26%), and disulfiram (9%) for a median of 360, 252 and 190 days, respectively.

There was no significant difference regarding time to death. There were 38 deaths in the entire cohort, with most ( $N=35$ ) in the advanced disease group. As expected, the leading cause of death was from ALD. There was no evidence of drug induced liver injury in either group.

There were no differences in medication discontinuation or completion of therapy rates. However, 43% of patients were lost to follow up and only 17% completed treatment. At the last follow-up time point, the rate of AUD medication discontinuation for adverse events was similar in both groups (14% vs 12%). PETH was monitored more frequently in the advanced liver disease cohort in 34% of cases whereas this occurred in only 4% of mild ALD cases.

## COMMENTARY

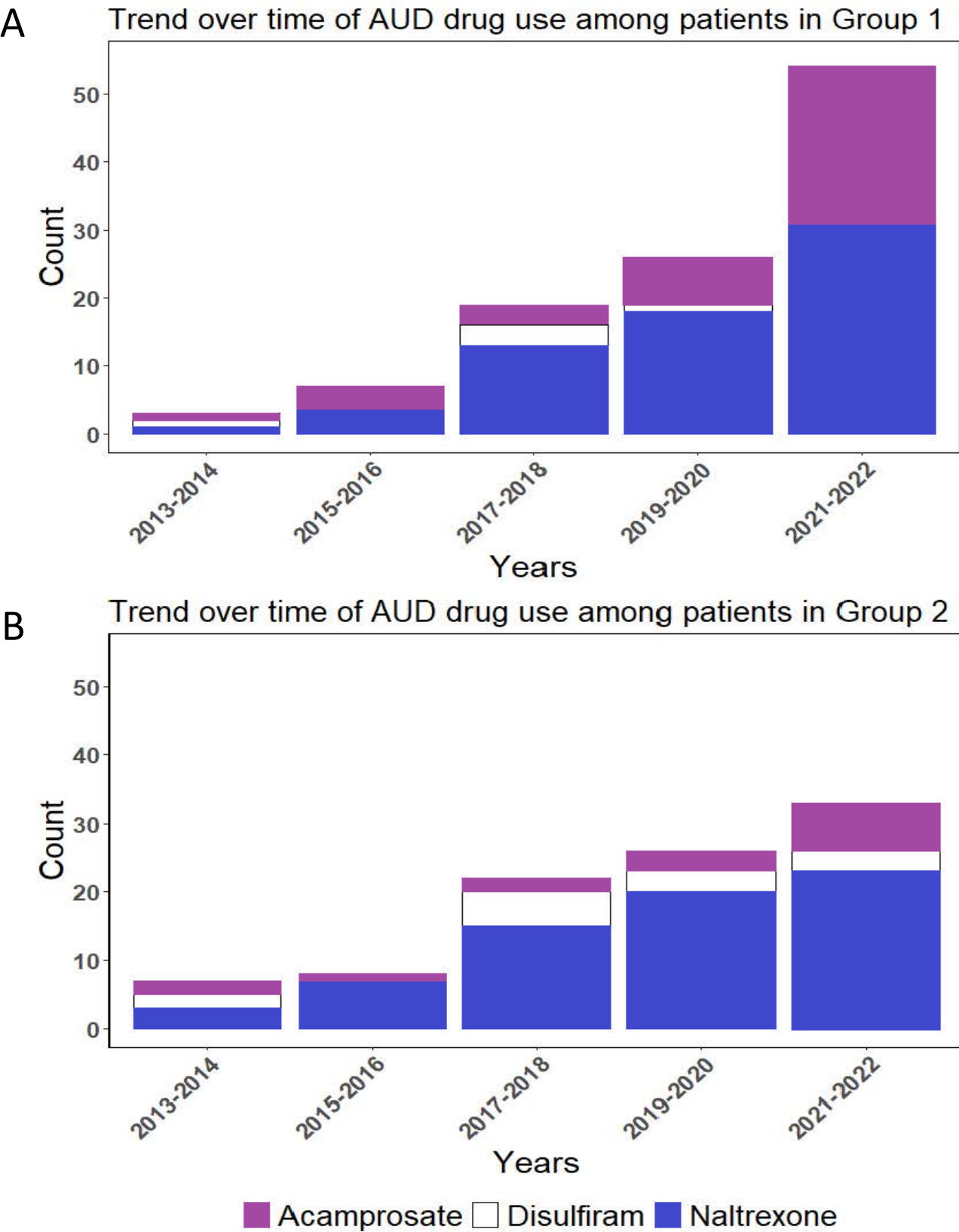
### Why Is This Important?

Worldwide, 283 million people are diagnosed with AUD, one-third of whom develop ALD.<sup>1</sup> Currently, ALD is the leading cause of cirrhosis worldwide, and in the United States and Europe, it is the leading etiology for liver transplantation.<sup>2</sup> The burden of disease is immense and efforts to achieve abstinence are critical since it is the key factor in improving survival in ALD. Pharmacotherapies are only one part of the multi-disciplinary approach to addressing ALD. However, AUD medications are underutilized due to knowledge gaps, and lack of comfort and familiarity with prescribing these medications.<sup>3</sup>

To address these gaps and variability in

comfort levels, there should be a focus on increased educational experiences for providers who care for those with AUD/ALD, especially those in training via addiction medicine electives, rotations, and intensive immersion programming.<sup>4</sup>

This study demonstrates similar tolerability and efficacy of 3 FDA approved AUD medications regardless of severity of liver disease. The authors also demonstrate an increase in total AUD medication prescriptions over the 10-year study period likely due to their initiation in 2018 of the “MAIN” (University of Michigan Alcohol Improvement Network) clinic. Centers across the US should consider this model and other models of care when designing clinical care pathways.



**Figure 1.** The number of prescriptions for individual alcohol use disorder (AUD) medications in 2-year intervals between 2013 and 2023. The total number of prescriptions (a) in patients with advanced liver disease (group 1) and (b) patients with mild liver disease (group 2) increased significantly over time ( $P = 0.012$  and  $0.016$ , respectively, per Mann-Kendall trend test).



## Key Study Findings

Between 2013 and 2023, there was a significant increase in the prevalence of patients with mild and severe alcohol associated liver disease in this single center, retrospective study. Among the 3 FDA approved medications for AUD, naltrexone was the most prescribed, in 65% of patients, and most frequently prescribed by Internal Medicine providers. Disulfiram was rarely used and is not recommended for AUD in the setting ALD. In terms of tolerability, the rates of AUD medication discontinuation were low and comparable between both cohorts.

Therefore, despite these medications being safe and increasingly utilized, they are still infrequently prescribed by gastroenterology and hepatology providers.

## Caution

By nature of the retrospective design of this study, only associations are noted but causality cannot be established. The sample sizes are modest despite the study spanning a full decade. There may also be selection bias in that the overwhelming majority were White and privately insured. Therefore, this study may not adequately reflect the diverse range of patients affected by ALD in the US.

## My Practice

In my practice, I care for patients with ALD and often Met-ALD frequently. I often find that these clinical scenarios

pose a different challenge than managing a patient with autoimmune hepatitis where steroids and immunosuppressive therapy are the clear answer, most often. I tell my patients that I can empower them, provide objective data, and arrange for close follow-up, while providing various resources, however they truly are in the “driver seat” and I am there to guide.

I practice in a culturally competent manner while abiding by the principles of cultural safety.<sup>5</sup> This requires minimizing presumptive narratives and incorporating social determinants of health into every treatment plan. It often requires several visits to build rapport with patients while encouraging them to bring their loved ones to clinic, and learning about their perceived barriers to abstaining from alcohol, until I am able to broach the topic of introducing pharmacotherapy or behavioral therapies. It often requires a multi-disciplinary approach and I may refer to our Addiction Medicine colleagues or prescribe AUD medications on my own, depending on the clinical situation. It is important for us as a Gastroenterology/Hepatology community to continue to educate ourselves and offer evidence-based therapies for AUD to curb the rapidly rising rates of ALD in this country.

## For Future Research

The authors are to be commended for highlighting an important topic that addresses the leading cause for liver transplant in many parts of the world. Future



multi-center randomized controlled trials with a diverse representation of patients with ALD with mild and advanced liver disease are needed to understand the true safety of AUD medications. In addition, cost analyses would be important to determine the public health burden of prescribing AUD medications. Preliminary reports have noted that prescribing medicines for alcohol use disorder leads to a large reduction in 30 day rehospitalization in those admitted for an alcohol related complication.<sup>6</sup> Studies such as these would also provide information regarding the barriers that patients may face in accessing pharmacotherapy for AUD. Furthermore, understanding the complex factors at the systems, provider and patient level that impact the underutilization of AUD therapy are critical in addressing care gaps.

## Conflicts of Interest

The authors have no reported conflicts of interest.

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# Does Colonoscopy with Water Exchange Decrease Right Colon Polyp Miss Rates?



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This summary reviews Cheng, C-L, Tang J-H, Hsieh Y-H, et al. Comparing Right-Sided Colon Adenoma and Serrated Polyp Miss Rates With Water Exchange and CO<sub>2</sub> Insufflation: A Randomized Controlled Trial. *Am J Gastroenterol*. 2024; doi: 10.14309/ajg.00000000000003168.

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Keywords: water exchange, colonoscopy, serrated polyp, miss rate

COLON

## STRUCTURED ABSTRACT

**Question:** Can colonoscopy performed with water exchange reduce the right-sided colon adenoma miss rate (rAMR) and serrated polyp (SP) miss rate (rSPMR) compared with standard colonoscopy?

**Design:** A randomized controlled trial.

**Setting:** Three hospitals in Taiwan between November 2019 and December 2022.

**Patients:** The authors included consecutive patients who were 45–75-years-old and scheduled for a colonoscopy for screening, surveillance, or positive fecal immunochemical test results. They excluded patients who had hereditary colorectal cancer (CRC) syndromes, a personal history of CRC or inflammatory bowel disease, previous colonic resection, known obstructive lesion of the

colon, gastrointestinal bleeding, an American Society of Anesthesiology classification 3 or higher, or if they refused to provide informed consent.

**Exposure:** Overall, 386 patients were randomly assigned to insertion with either WE or CO<sub>2</sub> insufflation.

**Outcomes:** The primary outcome was the combined rAMR and rSPMR as determined by a second endoscopist examining the proximal colon after reintubation of this segment.

**Data Analysis:** The investigators used an intention-to-treat analysis to assess the primary outcome. The Student *t* test for continuous variables and proportion tests for discrete variables were used to assess differences in demographic and clinical characteristics. Multivariate logistic regression analyses were used to determine in-dependent predictors of rSPMR.

**Funding:** None.

**Results:** The authors observed that the use of WE significantly decreased the combined rAMR and rSPMR (22.2% vs 32.2%,  $P < 0.001$ ) and rSPMR alone (22.5% vs 37.1%,  $P = 0.002$ ) compared with CO<sub>2</sub> insufflation, but not rAMR (21.8% vs 29.8%,  $P = 0.079$ ). The detection of SP per colonoscopy (SP per colonoscopy) in the right-sided colon was also increased when using WE (0.95 6 1.56 vs 0.50 6 0.79,  $P < 0.001$ ). After adjusting for important covariates, the authors observed that 2 or more right-sided SPs were an independent predictor of rSPMR (odds ratio, 3.47; 95% confidence interval, 1.89–6.38), along with a higher right-sided colon Boston Bowel Preparation Scale score (odds ratio, 0.55; 95% confidence interval, 0.32–0.94).

## COMMENTARY

### Why Is This Important?

The introduction of the water jet has enabled endoscopists to employ water-assisted colonoscopy. This technique can be performed with water immersion, in which water is infused and aspirated on withdrawal, or WE, in which the water is aspirated on insertion. Does

water help polyp detection? Our randomized controlled trial of total underwater colonoscopy demonstrated that visualizing the mucosa underwater does not increase polyp detection.<sup>1</sup> However, it is unclear if WE can help increase polyp detection. Although WE may aid in detection of polyps, this technique is

associated with longer procedure times due to longer insertion times. Therefore, data examining its use for detection are essential for practicing endoscopists. The current study provides important information by examining the impact of WE on right-sided polyp detection. This is an important outcome since post-colonoscopy CRCs are often in the proximal colon.

### Key Study Findings

This study is a well-designed trial with careful attention to maintaining equal inspection times for both arms.

The main finding is the decrease in miss rate for serrated polyps, which may be important precursor lesions. Other significant findings include the decreased need for abdominal pressure or change in patient position in order to achieve cecal intubation.

The latter is quite important for patients having deep sedation with propofol. Therefore, these data support the use of water during the insertion phase to aid with cecal intubation.

### Caution

The main finding here is the decreased miss rate for small serrated polyps. While some of these proximal SPs may be sessile serrated polyps, which can develop dysplasia and thus progress to malignancy,<sup>2</sup> many are likely to be benign hyperplastic polyps which have no clinical significance. In addition, many of the water studies are performed by experts who are very comfortable with

this technique. The data suggest that WE can help to improve bowel preparation scores as it did in this study. After logistic regression, a higher bowel preparation score was a predictor for reduced proximal SP miss rates. Higher quality of bowel preparation after washing could explain the increased detection of polyps.

### My Practice

I use copious water during colonoscopy, mostly as WE.<sup>3, 4</sup> For colons that are redundant, I may use water immersion. Filling the sigmoid colon with water helps to weigh it down and straighten the colon. Water also helps the endoscopist to visualize the mucosa by pushing it away from the scope without overly distending the colon, as would happen with air or CO<sub>2</sub>. Thus, one can complete the colon with less scope inserted and, therefore, less looping. I also use water to get through tight sigmoid colons. This helps to prevent barotrauma which can still occur even with CO<sub>2</sub>.<sup>5</sup> When examining the mucosa on withdrawal, I also use the water jet to spray the mucosal surfaces because I feel that it helps to identify subtle abnormalities, which can often be SPs. One recommendation is to use body temperature water to prevent the development of intraluminal white mucous in the rectosigmoid colon.<sup>7</sup>

### For Future Research

A major issue that needs to be addressed is the utility of WE for endoscopists in practice since many of the

studies have been conducted by a small group of investigators. How WE compares to other techniques and imaging technology is also important, largely because of the extra time needed for WE.

### Conflict of Interest

The author has no reported conflicts of interest.

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