Toward Standardized Outpatient Care for Acute Diverticulitis: A Proposal From the AIMS Academy Clinical Research Network

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Management strategies and clinical guidelines for diverticular disease have evolved substantially in recent years [1]. A tailored, patient-centered approach is now standard when deciding between surgical and conservative treatment, particularly in the outpatient setting [2,3]. For urgent presentations, the paradigm has shifted toward medical therapy in carefully selected patients, resulting in fewer emergency surgeries and a growing emphasis on elective procedures [4]. Despite this progress, significant gaps remain in the evidence regarding outpatient management following episodes of uncomplicated or complicated diverticulitis, as well as the role of medical therapy as a bridge to surgery after acute inflammation [5,6].

The goal of medical therapy in diverticular disease is twofold: to relieve acute and chronic symptoms and to reduce the risk of recurrence. Among the most frequently prescribed agents are mesalamine and rifaximin; however, current evidence provides little or no support for their routine use, particularly in preventing recurrence of acute diverticulitis [7,8].

There is a clear paucity of high-quality data, and further randomized controlled trials, complemented by real-world studies, are warranted. In clinical practice, treatment patterns remain heterogeneous, often differing depending on whether patients are followed by gastroenterologists or surgeons [8].

Outpatient medical management typically encompasses several complementary components:

• Lifestyle modification. Multiple guidelines highlight the importance of a healthy, active lifestyle to prevent diverticular disease and reduce recurrence risk. Increased physical activity, weight loss, and smoking cessation are among the most protective measures and universally recommended measures [9,10].

• Dietary recommendations. Evidence has overturned traditional dietary restrictions. While patients were once advised to avoid nuts and popcorn, robust data now support a high-fiber diet as the only proven dietary measure associated with reduced disease onset and recurrence [11].

• Systemic antibiotics. Routine antibiotic use in uncomplicated diverticulitis is no longer recommended, although it remains appropriate for immunocompromised or high-risk patients [5,12].

• Mesalamine and rifaximin. No solid evidence supports their role in preventing recurrence, though both may provide symptomatic benefit in selected patients with symptomatic uncomplicated diverticular disease. Notwithstanding, chronic use remains common in outpatient settings [13,14].

• Probiotics. The role of probiotics remains controversial. While they may help modulate the intestinal microbiome, potentially involved in the pathogenesis of diverticulitis, their efficacy in preventing recurrence is unproven. Nonetheless, probiotics may be considered as adjunctive therapy for persistent symptoms [8].

In 2021, the Advanced International Mini-invasive Surgery Academy (AIMS) Academy Clinical Research Network established the Diverticular Disease Registry, designed to collect real-world data on patients referred for surgical evaluation. This multi-institutional initiative provides a structured framework for data collection and fosters a more consistent approach to outpatient management. Regular collaborative meetings allow participating centers to review updates, share experiences, and align therapeutic strategies. Recently, a standardized outpatient protocol for medical therapy after an episode of uncomplicated or complicated diverticulitis was developed based on current evidence. This protocol aims to serve as a practical model that could be adopted beyond the network.

Outpatient management after symptomatic diverticulitis remains a matter of debate. Robust real-world data and well-designed randomized controlled trials are urgently needed to refine treatment strategies. Initiatives such as the one promoted by the AIMS Academy Clinical Research Net-

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work may help reduce practice variability while generating valuable evidence on treatment effectiveness.

Availability of Data and Materials

Not applicable.

Author Contributions

VPD, FDC, FR and JC conceived the concept. LS, LZ, UR, CLB outlined the editorial and contributed to the discussion. VPD drafted the manuscript. All authors contributed to the critical revision of the manuscript for important intellectual content. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

Not applicable.

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Conflict of Interest

The authors declare no conflict of interest.

References

[1] Hall J, Hardiman K, Lee S, Lightner A, Stocchi L, Paquette IM, *et al*. The American Society of Colon and Rectal Surgeons Clinical Practice Guidelines for the Treatment of Left-Sided Colonic Diverticulitis. Diseases of the Colon and Rectum. 2020; 63: 728–747. https://doi.org/10.1097/DCR.0000000000001679.

[2] Andeweg CS, Mulder IM, Felt-Bersma RJF, Verbon A, van der Wilt GJ, van Goor H, *et al*. Guidelines of diagnostics and treatment of acute left-sided colonic diverticulitis. Digestive Surgery. 2013; 30: 278–292. https://doi.org/10.1159/000354035.

[3] Strate LL, Morris AM. Epidemiology, Pathophysiology, and Treatment of Diverticulitis. Gastroenterology. 2019; 156: 1282–1298.e1. https://doi.org/10.1053/j.gastro.2018.12.033.

[4] Sartelli M, Catena F, Ansaloni L, Coccolini F, Griffiths EA, Abu-Zidan FM, *et al*. WSES Guidelines for the management of acute left sided colonic diverticulitis in the emergency setting. World Journal of Emergency Surgery. 2016; 11: 37. https://doi.org/10.1186/s13017-016-0095-0.

[5] Isacson D, Smedh K, Nikberg M, Chabok A. Long-term follow-up of the AVOD randomized trial of antibiotic avoidance in uncomplicated diverticulitis. The British Journal of Surgery. 2019; 106: 1542–1548. https://doi.org/10.1002/bjs.11239.

[6] Emile SH, Elfeki H, Sakr A, Shalaby M. Management of acute uncomplicated diverticulitis without antibiotics: a systematic review, meta-analysis, and meta-regression of predictors of treatment failure. Techniques in Coloproctology. 2018; 22: 499–509. https://doi.org/10.1007/s10151-018-1817-y.

[7] Kruis W, Kardalinos V, Eisenbach T, Lukas M, Vich T, Bunganic I, *et al*. Randomised clinical trial: mesalazine versus placebo in the prevention of diverticulitis recurrence. Alimentary Pharmacology & Therapeutics. 2017; 46: 282–291. https://doi.org/10.1111/apt.14152.

[8] Tursi A, Picchio M, Elisei W, Di Mario F, Scarpignato C, Brandimarte G. Management of Patients With Diverticulosis and Diverticular Disease: Consensus Statements From the 2nd International Symposium on Diverticular Disease. Journal of Clinical Gastroenterology. 2016; 50: S101–S107. https://doi.org/10.1097/MCG.0000000000000654.

[9] Ha J, Wu Y, Lee DH, Tabung FK, Giovannucci EL, Strate LL, *et al*. Dietary and lifestyle insulinemic potentials, plasma metabolome, and risk of diverticulitis: a prospective cohort study. The American Journal of Clinical Nutrition. 2024; 120: 1053–1062. https://doi.org/10.1016/j.ajcnut.2024.09.017.

[10] Aune D, Sen A, Leitzmann MF, Norat T, Tonstad S, Vatten LJ. Body mass index and physical activity and the risk of diverticular disease: a systematic review and meta-analysis of prospective studies. European Journal of Nutrition. 2017; 56: 2423–2438. https://doi.org/10.1007/s00394-017-1443-x.

[11] Crowe FL, Appleby PN, Allen NE, Key TJ. Diet and risk of diverticular disease in Oxford cohort of European Prospective Investigation into Cancer and Nutrition (EPIC): prospective study of British vegetarians and non-vegetarians. BMJ (Clinical Research Ed.). 2011; 343: d4131. https://doi.org/10.1136/bmj.d4131.

[12] Daniels L, Ünlü Ç, de Korte N, van Dieren S, Stockmann HB, Vrouenraets BC, *et al*. Randomized clinical trial of observational versus antibiotic treatment for a first episode of CT-proven uncomplicated acute diverticulitis. The British Journal of Surgery. 2017; 104: 52–61. https://doi.org/10.1002/bjs.10309.

[13] Tursi A, Picchio M. Mesalazine in preventing acute diverticulitis occurrence: a meta-analysis of randomized controlled trials. Journal of Gastrointestinal and Liver Diseases. 2016; 25: 409–411. https://doi.org/10.15403/jgld.2014.1121.253.msz.

[14] Binda GA, Cuomo R, Laghi A, Nascimbeni R, Serventi A, Bellini D, *et al*. Practice parameters for the treatment of colonic diverticular disease: Italian Society of Colon and Rectal Surgery (SICCR) guidelines. Techniques in Coloproctology. 2015; 19: 615–626. https://doi.org/10.1007/s10151-015-1370-x.