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Management of Pouchitis and Other Pouch-Related Disorders: Where Can We Go From Here

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Learning Objectives

1. Discuss the diagnosis and management of intermittent pouchitis
2. Discuss recent updates in medical management of chronic pouchitis
3. Discuss the diagnosis and management of Crohn's-like disease of the pouch
4. Discuss the concept of risk stratification and early intervention after ileal pouch-anal anastomosis

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Intermittent Pouchitis (Acute Pouchitis)

Typical symptoms:

- Frequency
- Urgency
- Incontinence
- Abdominal/pelvic cramping or pain

Intermittent pouchitis

- isolated and infrequent episodes of typical pouchitis symptoms
- improve with therapy (most commonly, antibiotics) or spontaneously
- followed by resolution of symptoms and periods of normal pouch function

Shen B. Nat Rev Gastroenterol Hepatol. 2012;8:323-33.
Shen B. Clin Gastroenterol Hepatol. 2013;11:1338-49.
Barnes EJ, et al. Clin Gastroenterol Hepatol. 2020;18:1356-1366.
Quine KP, Raffaele M. Ann Gastroenterol. 2020;13:149-160.
Barnes EJ and Agrawal M, et al. Gastroenterology 2024;146:59-65.

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Chronic Pouchitis

Chronic antibiotic dependent pouchitis (CADP)

- Symptoms are controlled on antibiotics, but worsen when antibiotics are discontinued
 - Traditional definition: Multiple pouchitis episodes per year (>4)
 - Numeric definition less helpful in clinical practice
- Objective of treatment: minimally effective dose of antibiotics that controls an individual patient's symptoms**

Chronic antibiotic refractory pouchitis (CARP)

- Relapsing-remitting or continuous symptoms of pouchitis with inadequate response to normal antibiotic regimens
- Treatment: often requires escalation to other therapies such as biologics or small molecule therapies**

Shen B. Nat Rev Gastroenterol Hepatol. 2013;9:323-33.
Shen B. Clin Gastroenterol Hepatol. 2013;11:1538-49.
Barnes EL and Agrawal M, et al. Gastroenterology 2024;146:59-85

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Crohn's-like Disease of the Pouch

Characterized by fistulae development, pouch and afferent limb strictures, and pre-pouch ileitis

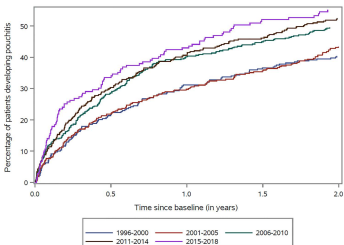
Meta-analysis of 11 Studies
Incidence Range: 5% - 21%
Pooled Incidence:
10.3% (95% CI: 6.1% – 15.4%)

Barnes EL, et al. Inflamm Bowel Dis. 2019; 25(8):1474-85.
Barnes EL and Agrawal M, et al. Gastroenterology 2024;146:59-85

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Changing Incidence of Pouchitis Over Time



From the US:
Crohn's-like disease of the pouch
5-year: 8.6%
10-year: 10.3%
Advanced therapy use
5 year: 11.8%
10 year: 14.4%

Barnes EL, et al. Clin Gastroenterol Hepatol. 2019;17:192-199.
Barnes EL, et al. Am J Gastroenterol. 2024; 119:2267-2274

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Primary and Secondary Prevention: Probiotics



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Question 1. In patients who undergo IPAA for UC, what is the effectiveness of probiotics for the primary prevention of pouchitis?

Recommendation 1. In patients with UC who undergo IPAA, the AGA makes no recommendation in favor of, or against, the use of probiotics for primary prevention of pouchitis. (No recommendation, knowledge gap)

Comment: There is a need for better evidence from clinical trials to inform the use of probiotics as a primary prevention strategy for pouchitis, especially given the potential cost and burden of long-term use with limited data on potential benefits.

Question 5. In adult outpatients with pouchitis, what is the effectiveness of probiotics for the prevention of recurrent pouchitis?

Recommendation 5. In patients with UC who have undergone IPAA and experience recurrent episodes of pouchitis that respond to antibiotics, the AGA suggests using probiotics for preventing recurrent pouchitis. (Conditional recommendation, low certainty of evidence)

Comment: Patients, particularly those with infrequent episodes of recurrent pouchitis or when the burden of long-term probiotic treatment is excessive, may reasonably choose avoiding any treatment to prevent recurrence of pouchitis.

Implementation Consideration

- 8-strain formulation of multistrain probiotics was used in clinical trials of prevention of pouchitis.

Barnes EL and Agrawal M, et al. Gastroenterology 2024;166:59-65
Gionchetti P, et al. Gastroenterology. 2003;124:1202-1209

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Are Current Probiotic Strategies Cost-Effective?



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Variable	Data case value	Range	Result
Probability of first pouchitis episode in 1 year on the 8-strain probiotic	10%	0-100%	Probiotic prophylaxis was not cost effective at any probability
Probability of first pouchitis episode in 1 year on no prophylaxis	40%	0-100%	Above 76%, prophylaxis with the 8-strain probiotic became cost effective
Probability of recurrent pouchitis within 1 year of index pouchitis episode	39%	0-100%	Prophylaxis with the 8-strain probiotic was not cost effective at any probability
Probability of response to ciprofloxacin 500 mg twice daily for 2 weeks	77%	0-100%	Prophylaxis with 8-strain probiotic was not cost effective at any probability
Probability of response to metronidazole 500 mg twice daily for 2 weeks	70%	0-100%	Prophylaxis with 8-strain probiotic was not cost effective at any probability
Cost of the 8-strain probiotic formulation for 2 weeks	\$87.2	\$1-\$1000	At cost less than \$42, probiotic prophylaxis became cost effective
Cost of ciprofloxacin 500 mg twice daily for 2 weeks	\$12	\$1-\$100	At cost less than \$9, probiotic prophylaxis became the dominant strategy
Cost of metronidazole 500 mg twice daily for 2 weeks	\$22.68	\$1-\$100	Prophylaxis with the 8-strain probiotic was not cost effective at any cost
Cost of ciprofloxacin 500 mg twice daily and metronidazole 500 mg twice daily for 4 weeks	\$270	\$1-\$1000	Prophylaxis with the 8-strain probiotic was not cost effective at any cost
Cost of first episode of pouchitis	\$612.60	\$50-\$10,000	At cost above \$3,936, prophylaxis with the 8-strain probiotic became cost effective
Annual utility of active pouchitis	0.46	0-1	Prophylaxis with the 8-strain probiotic was not cost effective at any utility value
Annual utility of no pouchitis	0.68	0-1	Prophylaxis with the 8-strain probiotic was not cost effective at any utility value

Syal G, et al. Gastro Hep Advances. 2026;5:100776.

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Summary



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Despite improvements in medical therapy for UC, colectomy with IPAA remains a common surgery

There is a significant burden of disease related to pouchitis and pouch-related conditions

Crohn's-like disease of the pouch occurs in approximately 10% of patients

Future prospective studies may aid in assessing the relative effectiveness and positioning of therapies and the role of novel methods of prevention after IPAA

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