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CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Treat-to-Target versus Conventional Management of Inflammatory Bowel Disease: Clinical Effectiveness and Cost-Effectiveness

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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Research Questions

1. What is the clinical effectiveness of treat-to-target management compared with conventional management of inflammatory bowel disease?
2. What is the cost-effectiveness of treat-to-target management compared with conventional clinical management of inflammatory bowel disease?

Key Findings

One randomized controlled trial was identified regarding the clinical effectiveness of treat-to-target compared to conventional management of inflammatory bowel disease. No economic evaluations were identified.

Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD), Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and February 14, 2019. Internet links are provided where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Patients of any age with Crohn's disease or ulcerative colitis at any stage or any baseline activity
Intervention	Treatment escalation driven by treat-to-target clinical management (combined or not with symptom-based management) • Escalation can be in any order or combinations of: aminosalicylates, corticosteroids, immunomodulators/immunosuppressants, biologics, surgery
Comparator	Treatment escalation by conventional (symptom-based) clinical management alone
Outcomes	Q1: Clinical effectiveness (e.g., steroid-free remission, time to remission, clinical response, deep remission, mucosal healing/response, endoscopic remission/healing, biological remission, disease activity scales [e.g., Crohn's Disease Activity Index, Ulcerative Colitis Disease Activity Index),]fistula resolution/closure/remission, partial remission, needs for surgery, hospitalization, death) and safety Q2: Cost-effectiveness
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and economic evaluations.

One randomized controlled trial was identified regarding the clinical effectiveness of treat-to-target compared to conventional management of inflammatory bowel disease. No relevant health technology assessments, systematic reviews, meta-analyses, non-randomized studies, or economic evaluations were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One randomized controlled trial was identified regarding the clinical effectiveness of treat-to-target compared to conventional management of inflammatory bowel disease.[1] The authors of this study compared mucosal healing outcomes for patients on a tight control algorithm versus patients managed with a clinical management algorithm. The authors observed that a significantly higher proportion of patients in the tight control group (46%) achieved the primary endpoint of mucosal healing by the end of the study than those in the clinical management group (30%).[1] The authors have demonstrated that monitoring, "clinical symptoms combined with biomarkers in patients with early Crohn's disease results in better clinical and endoscopic outcomes than symptom-driven decisions alone."[1]

No economic evaluations were identified; therefore, no summary pertaining to economic analyses can be provided.

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

1. Colombel JF, Panaccione R, Bossuyt P, et al. Effect of tight control management on Crohn's disease (CALM): a multicentre, randomised, controlled phase 3 trial. Lancet. 2018 Dec 23;390(10114):2779-2789. PubMed: PM29096949

Non-Randomized Studies

No literature identified.

Economic Evaluations

No literature identified.

Appendix — Further Information

Previous CADTH Reports

2. Biologics dose escalation for the treatment of inflammatory bowel disease: a review of clinical effectiveness, cost-effectiveness, and guidelines. Ottawa (ON): CADTH: 2018 Aug. https://www.cadth.ca/sites/default/files/pdf/htis/2018/RC1005%20Biologics%20IBD%20Final%20Revised.pdf Accessed 2019 Feb 21.

Systematic Review and Meta-Analyses – Comparator Unspecified

3. Battat R, Duijvestein M, Guizzetti L, et al. Histologic healing rates of medical therapies for ulcerative colitis: a systematic review and meta-analysis of randomized controlled trials. *Am J Gastroenterol*. 2019 Jan 25. PubMed: PM30694863

4. Murdoch T, O'Donnell S, Silverberg MS, Panaccione R. Biomarkers as potential treatment targets in inflammatory bowel disease: a systematic review. *Can J Gastroenterol Hepatol*. 2015 May;29(4):203-208. PubMed: PM25965441

Non-Randomized Studies – Alternative or No Comparator

5. Qiu P, Mao R, Chen BI, He Y, Zeng ZR, Chen MH. What is treat-to-target of Crohn's Disease: the comparison of long-term outcome among patients with mucosal healing, deep remission and biological remission? In: European Crohn's and Colitis Organisation; 2015. https://www.ecco-ibd.eu/publications/congress-abstract-s/abstracts-2015/item/p355-what-is-treat-to-target-of-crohnaposs-disease-the-comparison-of-long-term-outcome-among-patients-with-mucosal-healing-deep-remission-and-biological-remission.html Accessed 2019 Feb 21.

6. Bouguen G, Levesque BG, Pola S, Evans E, Sandborn WJ. Feasibility of endoscopic assessment and treating to target to achieve mucosal healing in ulcerative colitis. *Inflamm Bowel Dis*. 2014 Feb;20(2):231-239. PubMed: PM24351660

7. Bouguen G, Levesque BG, Pola S, Evans E, Sandborn WJ. Endoscopic assessment and treating to target increase the likelihood of mucosal healing in patients with Crohn's disease. *Clin Gastroenterol Hepatol*. 2014 Jun;12(6):978-985. PubMed: PM24246770

Review Articles

8. Duijvestein M, Battat R, Vande Casteele N, et al. Novel therapies and treatment strategies for patients with inflammatory bowel disease. *Curr Treat Options Gastroenterol*. 2018 Mar;16(1):129-146. PubMed: PM29411220

9. Mumolo MG, Bertani L, Ceccarelli L, et al. From bench to bedside: Fecal calprotectin in inflammatory bowel diseases clinical setting. *World J Gastroenterol*. 2018 Sep 7;24(33):3681-3694.
PubMed: PM30197475

10. Colombel JF, Narula N, Peyrin-Biroulet L. Management strategies to improve outcomes of patients with inflammatory bowel diseases. *Gastroenterol*. 2017 Feb;152(2):351-361.e355.
PubMed: PM27720840

11. Sandborn WJ, Hanauer S, Van Assche G, et al. Treating beyond symptoms with a view to improving patient outcomes in inflammatory bowel diseases. *J Crohns Colitis*. 2014 Sep;8(9):927-935.
PubMed: PM24713173