TITLE: Fecal Bacteriotherapy for Patients with Recurrent C. Difficile: Clinical Effectiveness and Guidelines

DATE: 25 March 2013

RESEARCH QUESTIONS

1. What is the clinical effectiveness of fecal bacteriotherapy for patients with recurrent C. difficile infection?

2. What are the evidence-based guidelines regarding the use of fecal bacteriotherapy for patients with C. difficile infection?

KEY MESSAGE

Three systematic reviews, one randomized controlled trial, and six non-randomized studies were identified regarding the clinical effectiveness of fecal bacteriotherapy for patients with recurrent C. difficile infection. No evidence-based guidelines were identified.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2013, Issue 2), University of York Centre for Reviews and Dissemination (CRD) databases, 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, 2010 and March 7, 2013. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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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 evidence-based guidelines.

Three systematic reviews, one randomized controlled trial, and six non-randomized studies were identified regarding the clinical effectiveness of fecal bacteriotherapy for patients with recurrent C. difficile infection. No relevant health technology assessments were identified. No evidence-based guidelines were identified regarding the use of fecal bacteriotherapy for patients with C. difficile infection. Additional references of potential interest are provided in the appendix.

This report is an update to “Fecal Bacteriotherapy for Patients with Recurrent Clostridium difficile: Clinical Effectiveness and Guidelines” completed in 2010 (http://www.cadth.ca/media/pdf/k0227_fecal_bacteriotherapy_htis-1-5.pdf).

OVERALL SUMMARY OF FINDINGS

Fecal transplantation (FT) was found to be a safe,\textsuperscript{1,2,5,7} effective\textsuperscript{1-5,7-10} and well tolerated\textsuperscript{9} procedure for patients with recurrent C. difficile infection (CDI) who had failed standard therapy. The treatment effectiveness of FT was also noted in difficult to treat patients\textsuperscript{10} and those with recurrent CDI caused by the virulent C difficile 027 strain.\textsuperscript{8} The effectiveness of FT appears to vary by the volume of feces transplanted, the relationship of the recipient to the stool donor, and to the treatment of CDI prior to transplantation.\textsuperscript{3} Fecal transplantation completed via colonoscopic\textsuperscript{7,8} and duodenal infusions\textsuperscript{4} were effective treatment modes. The clinical practice of FT was simplified when there was a standardization of the donor material preparation which addressed both aesthetic concerns and donor screening costs.\textsuperscript{6}

Adverse events following FT were either uncommon\textsuperscript{2,3} or not observed.\textsuperscript{9} Identified adverse events included irritable bowel syndrome, symptoms of mild enteritis, and suspected peritonitis.\textsuperscript{2} In addition, FT treatment failure was noted when administered after only a short duration of CDI symptoms (<60 days).\textsuperscript{2}
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Non-Randomized Studies


Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies – Patients Attitudes Towards Transplantation


Case Series


Review Articles


Additional References


