

# Health Quality Ontario

The provincial advisor on the quality of health care in Ontario

## Fecal Microbiota Therapy for *Clostridium difficile* Infection: OHTAC Recommendation

### ONTARIO HEALTH TECHNOLOGY ADVISORY COMMITTEE RECOMMENDATION

The Ontario Health Technology Advisory Committee recommends publicly funding fecal microbiota therapy for patients with recurrent *Clostridium difficile* infection.

### RATIONALE FOR THE RECOMMENDATION

After a review of the evidence,<sup>1</sup> there was consensus among OHTAC members that, given the large improvement of outcomes that are important to patients, the intervention provides good clinical benefit and value for money. OHTAC therefore decided to recommend in favour of public funding.

## Decision Determinants for Fecal Microbiota Therapy for *Clostridium Difficile* Infection

Decision Criteria	Subcriteria	Decision Determinants Considerations
<b>Overall clinical benefit</b> How likely is the health technology/intervention to result in high, moderate, or low overall benefit?	<b>Effectiveness</b> How effective is the health technology/intervention likely to be (taking into account any variability)?  <b>Safety</b> How safe is the health technology/intervention likely to be?  <b>Burden of illness</b> What is the likely size of the burden of illness pertaining to this health technology/intervention?  <b>Need</b> How large is the need for this health technology/intervention?	FMT is effective (increased resolution of diarrhea associated with recurrent CDI) compared with vancomycin.  FMT has an increased risk of transient short-term adverse events (e.g., diarrhea, abdominal cramping, belching) compared with antibiotics.  It is estimated that patients with recurrent CDI comprise approximately 50% of hospitalized patients and 50% of community patients.  Risk factors for CDI infection include antibiotic use, inflammatory bowel disease, comorbidity, and increasing age. A first recurrence occurs in 20%–30% of patients treated for an initial episode, and subsequent (second or later) recurrences are observed in 40%–60% of those cases.  Several recurrences can result in pseudomembranous colitis, bowel perforation, or sepsis. In some cases, patients unresponsive to medical management are treated with surgical colectomy.
<b>Consistency with expected societal and ethical values<sup>a</sup></b> How likely is adoption of the health technology/intervention to be congruent with societal and ethical values?	<b>Societal values</b> How likely is the adoption of the health technology/intervention to be congruent with expected societal values?  <b>Ethical values</b> How likely is the adoption of the health technology/intervention to be congruent with expected ethical values?	Physicians perceive recurrent CDI as affecting patients' quality of life. FMT would likely be congruent with physician values for effective treatment.  The adoption of FMT may be congruent with physician values, as physicians perceive FMT as improving patients' quality of life.
<b>Value for money</b> How efficient is the health technology likely to be?	<b>Economic evaluation</b> How efficient is the health technology/intervention likely to be?	FMT is cost-effective in the management of recurrent CDI when compared with standard (antibiotic) treatment and is dominant (more effective, less expensive) over vancomycin and fidaxomicin.
<b>Feasibility of adoption into health system</b> How feasible is it to adopt the health technology/intervention into the Ontario health care system?	<b>Economic feasibility</b> How economically feasible is the health technology/intervention?  <b>Organizational feasibility</b> How organizationally feasible is it to implement the health technology/intervention?	FMT can be cost-effective if it is used instead of standard antibiotic therapy to treat recurrent CDI.  Laboratory tests are required to process and screen feces appropriately.

Abbreviations: CDI, *Clostridium difficile* infection; FMT, fecal microbiota therapy.

<sup>a</sup>The anticipated or assumed common ethical and societal values held in regard to the target condition, target population, or treatment options. Unless evidence from scientific sources corroborates the true nature of the ethical and societal values, the expected values are considered.

## REFERENCE

- (1) Health Quality Ontario. Fecal microbiota therapy for *Clostridium difficile* infection: a health technology assessment. Ont Health Technol Assess Ser [Internet]. 2016 July;16(17):1-69. Available from: <http://www.hqontario.ca/evidence-to-improve-care/journal-ontario-health-technology-assessment-series>.

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### About OHTAC

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