# OPENBIOME

## FMT Upper Delivery
## Microbiota Preparation
FMP30

# CLINICIAN'S CHECKLIST

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# FMT Upper Delivery

# Clinician's Checklist

Clinician's checklist for the infusion of 30 mL of FMT Upper Delivery microbiota preparation (1 dose) by nasoenteric, esophagogastroduodenoscopy (EGD) or push enteroscopy administration for recurrent ***Clostridioides difficile*** infection (rCDI)

# Patient preparation

## 1. Review Indications & Contraindications

- ☐ Confirm that the indication to be treated by Fecal Microbiota Transplantation (FMT) is ***C. difficile*** infection (CDI) that is not responsive to standard therapy, and rule out alternative diagnosis (e.g. post-infectious IBS, inflammatory bowel disease, celiac disease)
    - **For fulminant (previously referred to as severe or severe-complicated CDI)::** We suggest that clinicians treating severe or severe-complicated CDI by FMT consider colonoscopic administration and review the protocols detailed in M. Fischer et al., "Faecal microbiota transplantation plus selected use of vancomycin for severe-complicated Clostridium difficile infection: Description of a protocol with high success rate," Aliment Pharmacol Ther. 2015;42(4):470-476.
- ☐ Review contraindications specific to the procedure (i.e. contraindications specific to nasogastric, esophagogastroduodenoscopy (EGD), push enteroscopy)

- ☐ Review contraindications for FMT material, including but not limited to:
  - History of gastroparesis
  - History of intestinal obstruction
  - Fulminant (previously referred to as severe or severe-complicated) CDI, given high ileus risk
  - Severe food allergy (e.g. anaphylaxis or anaphylactoid reaction)
  - Adverse event attributable to a previous FMT
  - Patients with allergies to sodium chloride or glycerol, both ingredients Generally Recognized As Safe (GRAS)
  - History of ongoing antibiotic use (e.g. nitrofurantoin for UTI prophylaxis)
  - Any condition for which the treating physician thinks the treatment may pose a health risk (e.g. severely immunocompromised)

**Warnings:**

OpenBiome cannot guarantee the inclusion or exclusion of any food allergens (e.g. tree nuts, seafood) from a donor's diet. This material has not been screened for CMV and EBV and should not be used for patients at risk for CMV- or EBV-as sociated diseases (e.g., severely immunocompromised patients such as seronegative transplant recipients). FMT carries the risk of known and unknown infectious disease transmission and potentially microbiome-mediated diseases. The risk of aspiration (via naso-enteric administration), bacteremia, and death have been reported in the literature.

Upper gastrointestinal administration, particularly naso-gastric tube delivery, carries a higher risk of aspiration, which is a rare but important procedure-related complication.

## 2. Obtain Informed Consent

- ☐ Inform patients of the real and theoretical risks, benefits, and treatment alternatives for FMT.
- ☐ Inform the patient that the use of FMT to treat recurrent ***C. difficile*** infection (rCDI) is investigational.

## 3. Review Medications

- ☐ Discontinue anti-rCDI antibiotics (e.g. vancomycin, fidaxomicin) **48 hours** prior to FMT Upper Delivery administration. Concomitant use of other antibiotics could reduce the procedure's efficacy
- ☐ For **naso-gastric tube** delivery, a proton pump inhibitor (PPI) the evening before FMT and the morning of the procedure is recommended to minimize the impact of gastric acid on the donor microbiota during FMT.

## 4. Day of FMT Upper Delivery administration

- ☐ Follow standard guidelines on best patient preparation practice for

naso-enteric, EGD or push enteroscopy delivery.*

- ☐ Patients should maintain a clear liquid diet the day of FMT administration.
- ☐ Patients should fast (NPO) for a minimum of 2 hours prior to the FMT administration.

## Thawing FMT Material

- ☐ Remove FMT Upper Delivery bottle from freezer and check to make sure that FMT Upper Delivery formulation is not expired
- ☐ Thaw immediately prior to use, using one of the following methods: 15 minutes in a 30°C water bath, 45 minutes at room temperature, or overnight at 4°C. No additional blending, mixing, or other preparation is required.

# Loading FMT material

Choose **one** of the following loading methods:

- ☐ Approach 1
  - Pour material into a sterile container. A clean K-basin or equivalent container is also commonly used.
  - Pre-load material into standard syringes with tips that are compatible with the endoscope port or nasoenteric tube for direct delivery of material through the channel.
- ☐ Approach 2
  - Pre-load syringes directly with material from the OpenBiome container. Verify that the syringe tips that are compatible with the endoscope port or nasoenteric tube for direct delivery of material through the channel.

# Administering FMT Material

## Via nasoenteric tube

- ☐ Position the patient to sit upright at a 45- to 90-degree angle to reduce the risk of aspiration or regurgitation.
- ☐ *Recommended*: Confirm appropriate tube placement by radiograph or fluoroscopy before fecal instillation to minimize procedural risks.
- ☐ Infuse the material over 2-3 minutes and flush tube with a standard saline flush.
- ☐ Remove the tube 30 minutes after infusion.

## Via EGD or push enteroscopy

- ☐ Follow standard guidelines on best practices for conducting an EGD or push enteroscopy.
- ☐ Infuse 30mL of FMT Upper Delivery microbiota preparation under direct visualization in the most distal portion of the small bowel reached by EGD/push enteroscopy, at least beyond the second portion of the duodenum, to minimize aspiration risk.

## Post Administration

- ☐ Patients should fast (NPO) for 1 hour after the administration and we recommend monitoring the patient for 2 hours post-procedure.
- ☐ Patients may return to a full diet after the post-procedure fasting period.

## Adverse Reactions

*This is a summary of adverse reactions reported in peer-reviewed literature; however, it may not be not be a comprehensive list. Please consult the primary sources listed in the references section of the OpenBiome Clinical Primer for more detailed information. A review of procedure-related adverse events (e.g. perforation, aspiration) are beyond the scope of this document.*

- ☐ **Common, mild adverse events:** transient diarrhea (70%), transient abdominal cramps/discomfort (20%) and nausea (<5%) in 24 hours post-FMT. Transient fever, bloating, belching, vomiting, and borborygmus have been reported. Constipation (20%). excess flatulence (25%) has been reported in follow-up. There is also a theoretical risk of small intestinal bacterial overgrowth.

- ☐ **Rare, serious adverse events:** The following risks should be considered:
  - ***Infection***: Although this material has been screened for bacteria, viruses, fungi and parasites, there is a risk of transmission of known and unknown infectious organisms contained in the donor stool. Post-FMT bacteremia (e.g. E. coli), sepsis and fatal events may rarely occur
  - ***Inflammatory bowel disease (IBD) flare*** in those with underlying IBD
  - ***Allergy/Anaphylaxis*** to antigens in donor stool
  - ***Non-infectious disease transmission:*** There is a theoretical risk of developing disease that may be related to donor gut microbiota. These include obesity, metabolic syndrome, cardiovascular disease, autoimmune conditions, allergic/atopic disorders, neurologic disorders, psychiatric conditions and malignancy. Persons with these known conditions are excluded from donating stool to OpenBiome.

# Mandatory Clinical Follow-Up

- ☐ Assess patients 8 weeks after FMT administration (phone/clinic visit) for clinical cure (e.g. absence of 3 or more liquid bowel movements a day)
- ☐ Complete the mandatory Material Tracking Log and FMT Follow-Up Form included with your shipment
- ☐ Send forms by email to safety@openbiome.org or by fax to (617) 575-2201, reporting de-identified patient outcomes.

**This quality assurance data is critical to our efforts to guard against potential threats to the safety and efficacy of FMT, and your participation is a strict condition for receiving future supplies.**

# Post FMT Patient Counseling

Advise patient to thoroughly clean their home to avoid reinfection after FMT. When cleaning, the patient should:

- ☐ Use an Environmental Protection Agency (EPA)-registered disinfectant with a ***C. difficile***-sporidical label claim, such as household bleach
- ☐ Scrub high-touch surface areas such as toilets, faucets, and showers
- ☐ Wear disposable gloves when cleaning; wash hands with soap and water thoroughly afterwards
- ☐ Consult OpenBiome's Patient Education materials: www.openbiome.org/patient-support

## Important Reminders

- FMT Upper Delivery bottle must be stored in a medical-grade freezer at -20°C or colder at all times, and should never be refrozen.
- After it has been thawed, FMT Upper Delivery material should be administered within 4 hours at room temperature or 8 hours refrigerated. Thawed material should not be refrozen.
- Immediately dispose of unused material as biohazardous waste.

## Ingredients

Frozen human fecal microbiota filtered to 330 microns, deionized water, glycerol (12.5%), sodium chloride (0.9%).

# CAUTION

New Drug—Limited by Federal (or United States) law to investigational use. Immediately report any adverse events to https://www.openbiome.org/adverse-events.

# CONTACT INFORMATION

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