Appendices

Evidence syntheses

Appendix 1 – Review questions and search strategies

Appendix 2 – Results of study selection a) PRISMA diagrams b) Excluded studies table

Appendix 3 – Quality appraisal a) QA checklists, b) QA results

Appendix 4 – Evidence tables a) characteristics of included studies, b) summary of findings tables

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Draft protocol is available on PROSPERO website

https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=371801

Appendix 1 – PICO questions and search strategies

Q1: Which patients with *Clostridioides difficile* infection should be considered for faecal microbiota transplant, and how should they be followed up after treatment?

Populations: Adults (18 years and over) with *Clostridioides difficile* infection

Intervention: Faecal microbiota transplant

Comparison: Placebo

Vancomycin

Metronidazole

Fidaxomicin

Rifaximin

Teicoplanin

Tigecycline

Intravenous immunoglobulin

Bezlotoxumab

Probiotics

Cessation of antibiotics for alternative indication

Outcomes:

Critical:
- Cessation of diarrhoea and other symptoms/ relapse
- Quality of life
- Serious adverse events

Important:
- Negative tests for *Clostridioides difficile* infection
- Adverse events

Study design: Randomised trials

If no randomised trials identified – any other design. **Note:** During the evidence synthesis, it was determined there were sufficient number of RCTs for establishing whether FMT is safe and effective in general population and only RCTs were included. For other populations, e.g. different types of comorbidities or different types of CDI, all study designs were allowed due to the lack of RCTs.

Q2: Which patients at risk of *Clostridioides difficile* infection should be considered for prophylactic treatment with faecal microbiota transplant?

Populations: Adults (18 years and over) perceived to be at risk of *Clostridioides difficile* infection

Intervention: Faecal microbiota transplant

Comparison: Placebo

Standard of care

Outcomes: **Critical:** Diarrhoea and other typical symptoms of CDI

Positive *C. difficile* laboratory tests

Quality of life

Serious adverse events

Important: Adverse events

Study design: Randomised trials

If no randomised trials identified – any other design.

Q3: What recipient factors influence the outcome of faecal microbiota transplant when treating people with *Clostridioides difficile* infection?

Populations: Adults (18 years and over) with *Clostridioides difficile* infection who receive faecal microbiota transplant

Prognostic factors: **Preparation of patient:**

Use of bowel purgatives vs no bowel purgatives

For upper GI administration - use of PPI/ acid suppression prior to procedure vs no acid suppression

Use of agents affecting GI motility (e.g. metoclopramide for upper GI/ loperamide for lower GI) vs no use

Time before procedure that anti-CDI antibiotics are used and stopped (comparing time courses)

Comorbidities:

Severe CDI/ toxic megacolon vs non-severe disease

Age (comparing different ages)

Patients treated with immunosuppressive medication vs no immunosuppressive medication

Co-existing inflammatory bowel disease (IBD) vs no IBD

Chronic liver disease/ cirrhosis vs no chronic liver disease

Cancer, either solid organ or haematological

Recent or concurrent COVID-19 infection/ positive SARS-CoV-2 test

Outcomes: **Critical:** Cessation of diarrhoea and other symptoms/ relapse

Survival and/or need for salvage colectomy (in the case of severe/ fulminant/ critically ill CDI patients)

Quality of life

Serious adverse events

Important: Negative tests for *Clostridioides difficile* infection

Adverse events

Study design: Randomised trials

If no randomised trials identified – any other design.

Q4: What donor factors influence the outcome of faecal microbiota transplant when treating people with *Clostridioides difficile* infection?

Populations: Adults (18 years and over) with *Clostridioides difficile* infection who receive faecal microbiota transplant

Prognostic factors: Related vs unrelated donor

Donor working in healthcare setting vs donor not from healthcare setting

BMI (comparing cut-offs used)

Age (comparing ages)

Length of time since donor had antibiotics (comparing cut-offs used)

Diet (comparing dietary types)

Outcomes: **Critical :** Cessation of diarrhoea and other symptoms/ relapse

Quality of life

Serious adverse events

Important: Negative tests for *Clostridioides difficile* infection

Adverse events

Study design: Randomised trials

If no randomised trials identified – any other design.

Q5: What factors related to the preparation of the transplant influence the outcome of faecal microbiota transplant when treating people with *Clostridioides difficile* infection?

Populations: Adults (18 years and over) with *Clostridioides difficile* infection who receive faecal microbiota transplant

Prognostic factors: Time after delivery when transplant is prepared (comparing time points)

Anaerobic preparation vs preparation in ambient air

Manual preparation vs use of blender/ homogeniser

Diluent used (comparing normal saline, phosphate-buffered saline, water, milk/ yoghurt and others)

Amount of stool used as starting material in preparation of transplant (comparing amounts)

Amount of stool/ transplant administered (comparing amount of stool/ volume of final product)

Single donor product vs pooled donor product

Fresh preparation vs frozen preparation:

-comparing glycerol vs other cryopreservative

-comparing concentration of cryopreservative used

-comparing temperatures that product is frozen at

-comparing length of time that frozen for before use

Outcomes: **Critical:** Cessation of diarrhoea and other symptoms/ relapse

Quality of life

Serious adverse events

Important: Negative tests for *Clostridioides difficile* infection

Adverse events

Study design: Randomised trials

If no randomised trials identified – any other design.

Q6: What factors related to administration of the transplant influence the outcome of faecal microbiota transplant when treating people with *Clostridioides difficile* infection?

Populations: Adults (18 years and over) with *Clostridioides difficile* infection who receive faecal microbiota transplant

Prognostic factors: Upper GI administration (nasogastric, nasoduodenal or nasojejunal tube; upper GI endoscopy) *vs* lower GI administration (enema, rectal catheter, flexible sigmoidoscopy, colonoscopy)

-where lower GI administration is used, site of delivery (comparing ileocolonic regions)

Encapsulated vs liquid:

-where encapsulated is used, lyophilised vs 'wet prep' product

Outcomes: **Critical:** Cessation of diarrhoea and other symptoms/ relapse

Quality of life

Serious adverse events

	Important:	Negative tests for *Clostridioides difficile* infection
		Adverse events
Study design:	Randomised trials	
	If no randomised trials identified – any other design.	

Q7: What is the clinical effectiveness of faecal microbiota transplant in treating conditions other than *Clostridioides difficile* infection?

Populations:	Adults (18 years and over) with conditions of interest (e.g. inflammatory bowel disease)	
Intervention:	Faecal microbiota transplant	
Comparison:	Standard care for the condition of interest	
	Placebo	
	Autologous faecal microbiota transplant	
Outcomes:	**Critical:**	Clinical improvement
		Improvement in laboratory/ radiological/ endoscopic tests
		Mortality
		Quality of life
		Serious adverse events
	Important:	Adverse events
Study design:	Randomised trials and systematic reviews	

Search results for Q1-6

Database: Embase <1974 to 2023 June 29>
Search Strategy:
1 Clostridium difficile/ or clostridioides difficile/ or clostridium difficile toxin a/ or clostridium difficile toxin b/ (16646)
2 (c diff$ or CDAD or CDI or RCDI).ti,ab. (26159)
3 (clostridium difficile or clostridioides difficile).ti,ab. (26502)
4 pseudomembranous colitis/ (5249)
5 pseudomembranous.ti,ab. (3299)
6 (antibiotic* adj2 (diarrhea or diarrhoea or colitis)).ti,ab. (3243)
7 or/1-6 (46023)
8 fecal microbiota transplantation/ (9302)
9 (FMT or HPI).ti,ab. (10821)
10 8 or 9 (16677)
11 transplantation/ (167447)
12 (transplant$ or infus$ or transfus$ or implant$ or instil$ or donat$ or donor or reconstitut$ or therap$ or bacteriotherapy or encapsulated$ or capsul$).ti,ab. (6928994)
13 11 or 12 (6954936)
14 (fecal or faecal or feces or faeces or stool or microbiota).ti,ab. (307258)
15 13 and 14 (62410)
16 10 or 15 (71609)
17 7 and 16 (5725)
18 limit 17 to yr="2017 -Current" (3265)

Database: Ovid MEDLINE(R) ALL <1946 to June 29, 2023>
Search Strategy:
1 Clostridium difficile/ or clostridioides difficile/ or clostridium difficile toxin a/ or clostridium difficile toxin b/ (11341)
2 (c diff$ or CDAD or CDI or RCDI).ti,ab. (16881)
3 (clostridium difficile or clostridioides difficile).ti,ab. (17807)
4 pseudomembranous colitis/ (7624)
5 pseudomembranous.ti,ab. (2543)
6 (antibiotic* adj2 (diarrhea or diarrhoea or colitis)).ti,ab. (2304)
7 or/1-6 (29853)
8 fecal microbiota transplantation/ (2759)
9 (FMT or HPI).ti,ab. (12142)
10 8 or 9 (13611)
11 transplantation/ (9016)
12 (transplant$ or infus$ or transfus$ or implant$ or instil$ or donat$ or donor or reconstitut$ or therap$ or bacteriotherapy or encapsulated$ or capsul$).ti,ab. (4858564)
13 11 or 12 (4862142)
14 (fecal or faecal or feces or faeces or stool or microbiota).ti,ab. (234692)
15 13 and 14 (38530)
16 10 or 15 (48598)
17 7 and 16 (2868)
18 limit 17 to yr="2017 - 2022" (1407)

Cochrane CENTRAL

Clostridium difficile or clostridioides difficile or clostridium difficile toxin or c diff or CDAD or CDI or RCDI or pseudomembranous colitis or pseudomembranous or antibiotic diarrhoea or antibiotic diarrhea or antibiotic colitis

AND

fecal microbiota transplant or faecal microbiota transplant or fecal microbiota transplantation or faecal microbiota transplant or FMT or HPI or transplant or infusion or transfusion or implant or instill or

instillation or donate or donation or donor or reconstitution or bacteriotherapy or encapsulated or encapsulation or capsule or stool or feces or faeces or microbiota

Limits: Jan 2017 to July 2023, trials

No. of records: 0 reviews + 759 trials

Search results for Q7

Database: Embase <1974 to 2023 June 29>
Search Strategy:
1 exp Inflammatory Bowel Diseases/ (197439)
2 (inflammatory bowel disease* or IBD).ti,ab. (120319)
3 1 or 2 (230831)
4 exp Crohn Disease/ (111389)
5 (Crohns* or CD).ti,ab. (281396)
6 4 or 5 (310819)
7 exp Colitis, Ulcerative/ or exp colitis/ (246123)
8 (ulcerative colitis or UC).ti,ab. (98087)
9 7 or 8 (269966)
10 exp ileal pouch-anal anastomosis/ or exp ileitis/ or exp proctocolectomy/ (14596)
11 (pouchitis* or IPAA or ileal pouch* or restorative proctocolectomy or Colonic Pouches).ti,ab. (7190)
12 10 or 11 (16275)
13 exp Constipation/ (111837)
14 Constipation.ti,ab. (52764)
15 13 or 14 (119889)
16 exp multidrug resistance/ (56363)
17 (multidrug resistan* or multiple drug resistan* or multi-drug resistan* or MDRO).ti,ab. (101517)
18 16 or 17 (119476)
19 exp Metabolic Syndrome X/ or exp nonalcoholic steatohepatitis/ or exp nonalcoholic fatty liver/ (162322)
20 (NAFLD or MAFLD or metabolic syndrome* or non-alcoholic fatty liver* or nonalcoholic fatty liver* or NASH or steatohepatitis*).ti,ab. (163411)
21 19 or 20 (195786)
22 exp graft versus host reaction/ or exp acute graft versus host disease/ or exp chronic graft versus host disease/ (79266)
23 (graft versus host* or graft vs host* or GvHD).ti,ab. (64428)
24 22 or 23 (90278)
25 exp irritable colon/ (32045)
26 (IBS or irritable bowel syndrome*).ti,ab. (30343)
27 25 or 26 (38936)
28 exp Hepatic Encephalopathy/ (23833)

29 hepatic encephalopathy.ti,ab. (16969)
30 28 or 29 (26140)
31 exp autism/ (95331)
32 (autistic spectrum* or autism or ASD).ti,ab. (94996)
33 31 or 32 (120980)
34 exp Immune Checkpoint Inhibitors/ (23782)
35 checkpoint inhibitor*.ti,ab. (45409)
36 34 or 35 (53535)
37 3 or 6 or 9 or 12 or 15 or 18 or "56".mp. or 24 or 27 or 30 or 33 or 36 [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (1599381)
38 Fecal Microbiota Transplantation/ (9302)
39 FMT.mp. or HPI.ti,ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (10997)
40 38 or 39 (16751)
41 (transplant$ or infus$ or transfus$ or implant$ or instil$ or donat$ or donor or reconstitut$ or therap$ or bacteriotherapy or encapsulated$ or capsul$).ti,ab. (6928994)
42 Transplantation/ (167447)
43 Transplants/ (167447)
44 41 or 42 or 43 (6954936)
45 (fecal or faecal or feces or faeces or stool or microbiota).ti,ab. (307258)
46 44 and 45 (62410)
47 40 or 46 (71665)
48 37 and 47 (23339)
49 limit 48 to yr="2017 -Current" (14488)

Database: Ovid MEDLINE(R) ALL <1946 to June 29, 2023>
Search Strategy:
1 exp Inflammatory Bowel Diseases/ (96798)
2 (inflammatory bowel disease* or IBD).ti,ab. (65970)
3 1 or 2 (122818)
4 exp Crohn Disease/ (44334)
5 (Crohns* or CD).ti,ab. (191928)
6 4 or 5 (202990)
7 exp Colitis, Ulcerative/ or exp colitis/ (62626)
8 (ulcerative colitis or UC).ti,ab. (57445)
9 7 or 8 (87450)
10 exp ileal pouch-anal anastomosis/ or exp ileitis/ or exp proctocolectomy/ (6961)
11 (pouchitis* or IPAA or ileal pouch* or restorative proctocolectomy or Colonic Pouches).ti,ab. (4446)
12 10 or 11 (8598)
13 exp Constipation/ (16062)
14 Constipation.ti,ab. (28907)
15 13 or 14 (33605)
16 exp multidrug resistance/ (0)
17 (multidrug resistan* or multiple drug resistan* or multi-drug resistan* or MDRO).ti,ab. (79877)
18 16 or 17 (79877)
19 exp Metabolic Syndrome X/ or exp nonalcoholic steatohepatitis/ or exp nonalcoholic fatty liver/ (60079)
20 (NAFLD or MAFLD or metabolic syndrome* or non-alcoholic fatty liver* or nonalcoholic fatty liver*

or NASH or steatohepatitis*).ti,ab. (99407)
21 19 or 20 (106675)
22 exp graft versus host reaction/ or exp acute graft versus host disease/ or exp chronic graft versus host disease/ (102)
23 (graft versus host* or graft vs host* or GvHD).ti,ab. (35108)
24 22 or 23 (35113)
25 exp irritable colon/ (9456)
26 (IBS or irritable bowel syndrome*).ti,ab. (17923)
27 25 or 26 (19057)
28 exp Hepatic Encephalopathy/ (11199)
29 hepatic encephalopathy.ti,ab. (9322)
30 28 or 29 (15474)
31 exp autism/ (25187)
32 (autistic spectrum* or autism or ASD).ti,ab. (68923)
33 31 or 32 (74193)
34 exp Immune Checkpoint Inhibitors/ (17734)
35 checkpoint inhibitor*.ti,ab. (25023)
36 34 or 35 (35657)
37 3 or 6 or 9 or 12 or 15 or 18 or "56".mp. or 24 or 27 or 30 or 33 or 36 [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (917817)
38 Fecal Microbiota Transplantation/ (2759)
39 FMT.mp. or HPI.ti,ab. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] (12292)
40 38 or 39 (13729)
41 (transplant$ or infus$ or transfus$ or implant$ or instil$ or donat$ or donor or reconstitut$ or therap$ or bacteriotherapy or encapsulated$ or capsul$).ti,ab. (4858564)
42 Transplantation/ (9016)
43 Transplants/ (5793)
44 41 or 42 or 43 (4864367)
45 (fecal or faecal or feces or faeces or stool or microbiota).ti,ab. (234692)
46 44 and 45 (38532)
47 40 or 46 (48658)
48 37 and 47 (9711)
49 limit 48 to yr="2017 -Current" (5955)

Cochrane CENTRAL

Inflammatory Bowel Diseases or Inflammatory Bowel Disease or IBD or Crohn Disease or Crohn's Disease or CD or ulcerative colitis or UC or ileal pouch-anal anastomosis or ileitis or proctocolectomy or pouchitis or IPAA or ileal pouch or restorative proctocolectomy or colonic pouches or constipation or multidrug resistance or multi-drug resistance or multidrug resistant or multi-drug resistant or multipledrug resistance or multiple-drug resistance or or multipledrug resistant or multiple-drug resistant or MDRO or metabolic syndrome or nonalcoholic steatohepatitis or non-alcoholic steatohepatitis or nonalcoholic fatty liver or non-alcoholic fatty liver or NAFLD or MAFLD or NASH or steatohepatitis or graft versus host or graft vs host or GvHD or irritable colon or irritable bowel syndrome or IBS or hepatic encephalopathy or autism or autistic spectrum or ASD or immune checkpoint inhibitors or checkpoint inhibitor

AND

fecal microbiota transplant or faecal microbiota transplant or fecal microbiota transplantation or faecal microbiota transplant or FMT or HPI or transplant or infusion or transfusion or implant or instill or instillation or donate or donation or donor or reconstitution or bacteriotherapy or encapsulated or encapsulation or capsule or stool or feces or faeces or microbiota

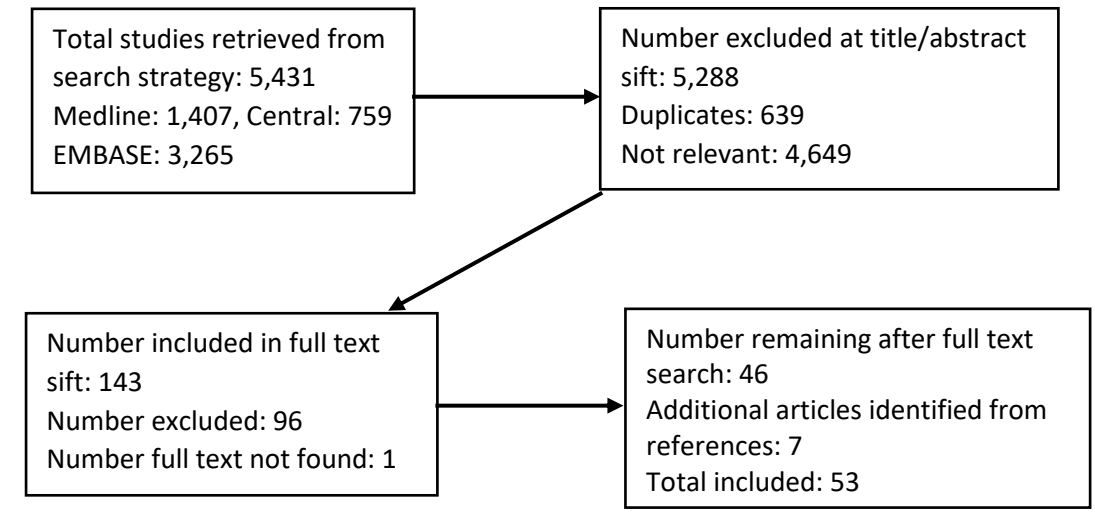
Limits: Jan 2017 to July 2023, trials

No. of records: 0 reviews + 975 trials

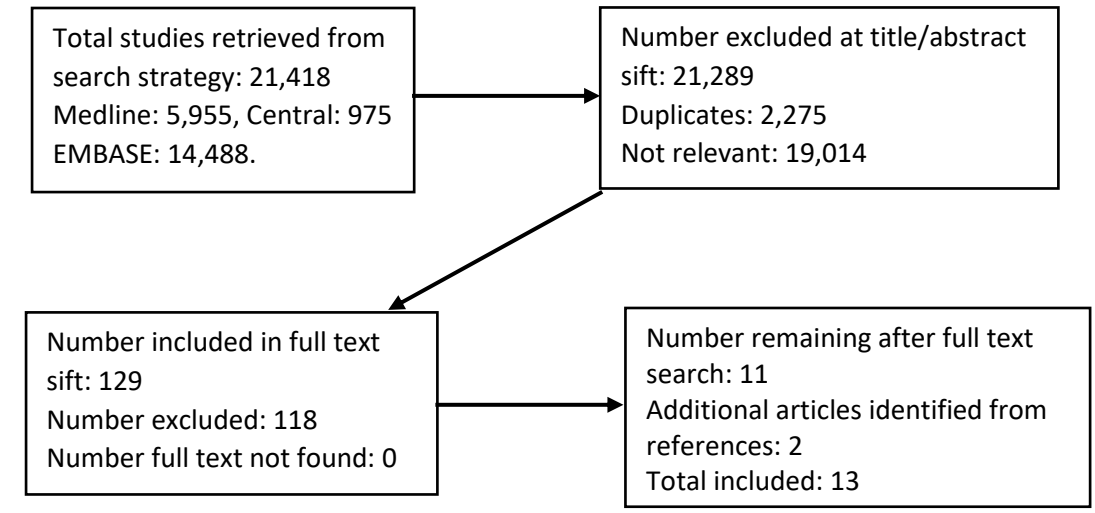
Appendix 2 – Results of study selection

a) study selection process

Questions 1-6



Question 7



*Reasons for exclusion provided in section 2b – includes articles which were not available for retrieval

b) Excluded studies table

Question 1-6

Citation	Reason for exclusion
Agarwal A, Maheshwari A, Verma S, Arrup D, Phillips L, Vinayek R, Nair P, Hagan M, Dutta S. Superiority of Higher-Volume Fresh Feces Compared to Lower-Volume Frozen Feces in Fecal Microbiota Transplantation for Recurrent Clostridioides Difficile Colitis. Dig Dis Sci. 2021 Jun;66(6):2000-2004. doi: 10.1007/s10620-020-06459-0.	Too many variations in the FMT delivery to make inference
Alhifany AA, Almutairi AR, Almangour TA, Shahbar AN, Abraham I, Alessa M, Alnezary FS, Cheema E. Comparing the efficacy and safety of faecal microbiota transplantation with bezlotoxumab in reducing the risk of recurrent Clostridium difficile infections: a systematic review and Bayesian network meta-analysis of randomised controlled trials. BMJ Open. 2019 Nov 7;9(11):e031145.	Review – indirect comparison of FMT and bezlotoxumab
Allegretti JR, Allegretti AS, Phelps E, Xu H, Fischer M, Kassam Z. Classifying Fecal Microbiota Transplantation Failure: An Observational Study Examining Timing and Characteristics of Fecal Microbiota Transplantation Failures. Clin Gastroenterol Hepatol. 2018 Nov;16(11):1832-1833.	No comparison group
Allegretti JR, Allegretti AS, Phelps E, Xu H, Kassam Z, Fischer M. Asymptomatic Clostridium difficile carriage rate post-fecal microbiota transplant is low: a prospective clinical and stool assessment. Clin Microbiol Infect. 2018 Jul;24(7):780.e1-780.e3.	In previous guidelines
Allegretti JR, Fischer M, Sagi SV, Bohm ME, Fadda HM, Ranmal SR, Budree S, Basit AW, Glettig DL, de la Serna EL, Gentile A, Gerardin Y, Timberlake S, Sadovsky R, Smith M, Kassam Z. Correction to: Fecal Microbiota Transplantation Capsules with Targeted Colonic Versus Gastric Delivery in Recurrent Clostridium difficile Infection: A Comparative Cohort Analysis of High and Low Dose. Dig Dis Sci. 2019 Jul;64(7):2059.	Corrigendum
Allegretti JR, Fischer M, Sagi SV, Bohm ME, Fadda HM, Ranmal SR, Budree S, Basit AW, Glettig DL, de la Serna EL, Gentile A, Gerardin Y, Timberlake S, Sadovsky R, Smith M, Kassam Z. Fecal Microbiota Transplantation Capsules with Targeted Colonic Versus Gastric Delivery in Recurrent Clostridium difficile Infection: A Comparative Cohort Analysis of High and Lose Dose. Dig Dis Sci. 2019 Jun;64(6):1672-1678.	Does not answer PICO question
Allegretti JR, Kao D, Phelps E, Roach B, Smith J, Ganapini VC, Kassam Z, Xu H, Fischer M. Risk of Clostridium difficile Infection with Systemic Antimicrobial Therapy Following Successful Fecal Microbiota Transplant: Should We Recommend Anti-Clostridium difficile Antibiotic Prophylaxis? Dig Dis Sci. 2019 Jun;64(6):1668-1671.	Does not fit criteria for population
Allegretti JR, Kao D, Sitko J, Fischer M, Kassam Z. Early Antibiotic Use After Fecal Microbiota Transplantation Increases Risk of Treatment Failure. Clin Infect Dis. 2018 Jan 6;66(1):134-135	Included in previous guidelines
Allegretti JR, Kassam Z, Fischer M, Kelly C, Chan WW. Risk Factors for Gastrointestinal Symptoms Following Successful Eradication of Clostridium difficile by Fecal Microbiota Transplantation (FMT). J Clin Gastroenterol. 2019 Oct;53(9):e405-e408.	No relevant outcomes
Allegretti JR, Mehta SR, Kassam Z, Kelly CR, Kao D, Xu H, Fischer M. Risk Factors that Predict the Failure of Multiple Fecal Microbiota Transplantations for Clostridioides difficile Infection. Dig Dis Sci. 2021 Jan;66(1):213-217.	Does not fit criteria for population

Alukal J, Dutta SK, Surapaneni BK, Le M, Tabbaa O, Phillips L, Mattar MC. Safety and efficacy of fecal microbiota transplant in 9 critically ill patients with severe and complicated Clostridium difficile infection with impending colectomy. J Dig Dis. 2019 Jun;20(6):301-307.	No comparison group
Angelica Meighani A, Hart BR, Bourgi K, Miller N, John A, Ramesh M. Outcomes of fecal microbiota transplantation for Clostridium difficile infection in patients with inflammatory bowel disease. Digestive diseases and sciences. 2017 Oct;62:2870-5.	Wrong study design
Aurelia H, Sorin R, Elena M, Eugen D, Magdalena DI. Performance and Consequences for Fecal Transplant in the Treatment of Pseudomembranous Colitis. ARS Medica Tomitana.;26(3):113-6.	Wrong study design
Azimirad M, Yadegar A, Asadzadeh Aghdaei H, Kelly CR. Enterotoxigenic Clostridium perfringens Infection as an Adverse Event After Faecal Microbiota Transplantation in Two Patients With Ulcerative Colitis and Recurrent Clostridium difficile Infection: A Neglected Agent in Donor Screening. J Crohns Colitis. 2019 Jul 25;13(7):960-961.	No relevant outcomes, no comparison group
Azimirad M, Yadegar A, Gholami F, Shahrokh S, Asadzadeh Aghdaei H, Ianiro G, Suzuki H, Cammarota G, Zali MR. Treatment of Recurrent Clostridioides difficile Infection Using Fecal Microbiota Transplantation in Iranian Patients with Underlying Inflammatory Bowel Disease. J Inflamm Res. 2020 Sep 18;13:563-570.	No comparison group
Bamba S, Nishida A, Imaeda H, Inatomi O, Sasaki M, Sugimoto M, Andoh A. Successful treatment by fecal microbiota transplantation for Japanese patients with refractory Clostridium difficile infection: A prospective case series. J Microbiol Immunol Infect. 2019 Aug;52(4):663-666.	Wrong study design
Blount KF, Shannon WD, Deych E, Jones C. Restoration of Bacterial Microbiome Composition and Diversity Among Treatment Responders in a Phase 2 Trial of RBX2660: An Investigational Microbiome Restoration Therapeutic. Open Forum Infect Dis. 2019 Apr 11;6(4):ofz095.	Not FMT
Chauhan A, Apostolov R, van Langenberg D, Garg M. Faecal microbiota transplantation for recurrent Clostridioides difficile infection: an Australian experience - effective, safe, yet room for improvement. Intern Med J. 2021 Jan;51(1):106-110.	No relevant outcomes, no control group
Chehri M, Christensen AH, Halkjær SI, Günther S, Petersen AM, Helms M. Case series of successful treatment with fecal microbiota transplant (FMT) oral capsules mixed from multiple donors even in patients previously treated with FMT enemas for recurrent Clostridium difficile infection. Medicine (Baltimore). 2018 Aug;97(31):e11706.	No comparison group
Chen QY, Tian HL, Yang B, Lin ZL, Zhao D, Ye C, Zhang XY, Qin HL, Li N. [Effect of intestinal preparation on the efficacy and safety of fecal microbiota transplantation treatment]. Zhonghua Wei Chang Wai Ke Za Zhi. 2020 Jul 10;23(Z1):48-55.	No relevant outcomes, not in English
Cheng YW, Phelps E, Ganapini V, Khan N, Ouyang F, Xu H, Khanna S, Tariq R, Friedman-Moraco RJ, Woodworth MH, Dhere T, Kraft CS, Kao D, Smith J, Le L, El-Nachef N, Kaur N, Kowsika S, Ehrlich A, Smith M, Safdar N, Misch EA, Allegretti JR, Flynn A, Kassam Z, Sharfuddin A, Vuppalanchi R, Fischer M. Fecal microbiota transplantation for the treatment of recurrent and severe Clostridium difficile infection in solid organ transplant recipients: A multicenter experience. Am J Transplant. 2019 Feb;19(2):501-511.	No comparison group
Cheng YW, Phelps E, Nemes S, Rogers N, Sagi S, Bohm M, El-Halabi M, Allegretti JR, Kassam Z, Xu H, Fischer M. Fecal Microbiota Transplant Decreases Mortality	No relevant outcomes

in Patients with Refractory Severe or Fulminant Clostridioides difficile Infection. Clin Gastroenterol Hepatol. 2020 Sep;18(10):2234-2243.e1.	
Cold F, Svensson CK, Petersen AM, Hansen LH, Helms M. Long-Term Safety Following Faecal Microbiota Transplantation as a Treatment for Recurrent Clostridioides difficile Infection Compared with Patients Treated with a Fixed Bacterial Mixture: Results from a Retrospective Cohort Study. Cells. 2022 Jan 27;11(3):435.	No relevant outcomes
Cheng F, Huang Z, Li Z, Wei W. Efficacy and safety of fecal microbiota transplant for recurrent Clostridium difficile infection in inflammatory bowel disease: a systematic review and meta-analysis. Rev Esp Enferm Dig. 2022 Jan 1;114(9):543-9.	Also included paediatric population
Cold F, Svensson CK, Petersen AM, Hansen LH, Helms M. Long-term safety following faecal microbiota transplantation as a treatment for recurrent Clostridioides difficile infection compared with patients treated with a fixed bacterial mixture: results from a retrospective cohort study. Cells. 2022 Jan 27;11(3):435.	No relevant outcomes
Cruz R, Monrroy H, Flandez J, Pérez CM, Álvarez-Lobos M, Hernández-Rocha C. Claves prácticas para un trasplante de microbiota fecal por colonoscopía en infección por Clostridium difficile recurrente. Experiencia en un centro universitario [Practical clues for a fecal microbiota transplantation by colonoscopy for recurrent Clostridium difficile infection. Experience in a University center]. Rev Chilena Infectol. 2018;35(5):566-573.	Not in English, wrong population
Dawwas GK, Brensinger CM, Vajravelu RK, Wu Q, Kelly CR, Laine L, Wu GD, Lewis JD. Long-term Outcomes Following Multiply Recurrent Clostridioides difficile Infection and Fecal Microbiota Transplantation. Clin Gastroenterol Hepatol. 2022 Apr;20(4):806-816.e6	No relevant outcomes
DeFilipp Z, Bloom PP, Torres Soto M, Mansour MK, Sater MRA, Huntley MH, Turbett S, Chung RT, Chen YB, Hohmann EL. Drug-Resistant E. coli Bacteremia Transmitted by Fecal Microbiota Transplant. N Engl J Med. 2019 Nov 21;381(21):2043-2050.	Wrong study design
de la Villa S, Herrero S, Muñoz P, Rodríguez C, Valerio M, Reigadas E, Álvarez-Uría A, Alcalá L, Marín M, Olmedo M, Kestler M. Real-world use of bezlotoxumab and fecal microbiota transplantation for the treatment of Clostridioides difficile infection. InOpen Forum Infectious Diseases 2023 Feb 1 (Vol. 10, No. 2, p. ofad028). US: Oxford University Press.	Wrong study design
Drekonja DM, Shaukat A, Zhang JH, Reinink AR, Nugent S, Dominitz JA, Davis-Karim A, Gerding DN, Kyriakides TC. Microbiota or placebo after antimicrobial therapy for recurrent Clostridioides difficile at home: A clinical trial with novel home-based enrollment. Clin Trials. 2021 Oct;18(5):622-629.	No relevant outcomes
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Duarte-Chavez R, Wojda TR, Zanders TB, Geme B, Fioravanti G, Stawicki SP. Early Results of Fecal Microbial Transplantation Protocol Implementation at a Community-based University Hospital. J Glob Infect Dis. 2018 Apr-Jun;10(2):47-57.	No comparison group

Dubberke ER, Lee CH, Orenstein R, Khanna S, Hecht G, Gerding DN. Results From a Randomized, Placebo-Controlled Clinical Trial of a RBX2660-A Microbiota-Based Drug for the Prevention of Recurrent Clostridium difficile Infection. Clin Infect Dis. 2018 Sep 28;67(8):1198-1204.	Not FMT
El Halabi J, Palmer N, Fox K, Kohane I, Farhat MR. Fecal microbiota transplantation and Clostridioides difficile infection among privately insured patients in the United States. J Gastroenterol. 2022 Jan;57(1):10-18.	Assessed the trends of FMT use, not its effectiveness
Ferre Aracil C, El Hajra Martínez I, Vera Mendoza MS, Ramos Martínez A, Muñez Rubio E, Fernández-Cruz A, Matallana Royo V, García-Maseda S, Sánchez Romero I, Martínez Ruiz R, Calleja Panero JL. Faecal Microbiota Transplantation is a simple, effective and safe treatment in the management of C. difficile infection in daily clinical practice. Enferm Infecc Microbiol Clin (Engl Ed). 2023 Apr;41(4):206-210.	No comparison group
Ferre-Aracil C., El Hajra Martinez I., Vera Mendoza M.I., et al Faecal microbiota transplantation is a simple, effective and safe treatment in the management of C. difficile infection in daily clinical practice. Enferm. Infecc. Microbiol. Clin. 2022;no pagination.	Not in English
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Fischer M, Kao D, Kassam Z, Smith J, Louie T, Sipe B, Torbeck M, Xu H, Ouyang F, Mozaffarian D, Allegretti JR. Stool Donor Body Mass Index Does Not Affect Recipient Weight After a Single Fecal Microbiota Transplantation for Clostridium difficile Infection. Clin Gastroenterol Hepatol. 2018 Aug;16(8):1351-1353.	No relevant outcomes
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Gallo A, Cancelli C, Ceron E, Covino M, Capoluongo E, Pocino K, Ianiro G, Cammarota G, Gasbarrini A, Montalto M. Fecal calprotectin and need of multiple microbiota trasplantation infusions in Clostridium difficile infection. J Gastroenterol Hepatol. 2020 Nov;35(11):1909-1915.	No relevant outcomes
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Gangwani MK, Aziz M, Aziz A, Priyanka F, Weissman S, Phan K, Dahiya DS, Ahmed Z, Sohail AH, Lee-Smith W, Kamal F. Fresh Versus Frozen Versus Lyophilized Fecal Microbiota Transplant for Recurrent Clostridium Difficile Infection: A Systematic Review and Network Meta-analysis. Journal of Clinical Gastroenterology. 2023 Mar 1;57(3):239-45.	Too many variables between intervention and control
Garza-González E, Mendoza-Olazarán S, Morfin-Otero R, Ramírez-Fontes A, Rodríguez-Zulueta P, Flores-Treviño S, Bocanegra-Ibarias P, Maldonado-Garza H, Camacho-Ortiz A. Intestinal Microbiome Changes in Fecal Microbiota Transplant (FMT) vs. FMT Enriched with Lactobacillus in the Treatment of Recurrent Clostridioides difficile Infection. Can J Gastroenterol Hepatol. 2019 Dec 28;2019:4549298	No comparison group
Goldenberg SD, Batra R, Beales I, Digby-Bell JL, Irving PM, Kellingray L, Narbad A, Franslem-Elumogo N. Comparison of Different Strategies for Providing Fecal	No primary data

Microbiota Transplantation to Treat Patients with Recurrent Clostridium difficile Infection in Two English Hospitals: A Review. Infect Dis Ther. 2018 Mar;7(1):71-86.	
Greenberg SA, Youngster I, Cohen NA, Livovsky DM, Strahilevitz J, Israeli E, Melzer E, Paz K, Fliss-Isakov N, Maharshak N. Five years of fecal microbiota transplantation - an update of the Israeli experience. World J Gastroenterol. 2018 Dec 21;24(47):5403-5414	Also included paediatric patients
Gery B. Fecal Microbiota Transplantation Versus Vancomycin or Fidaxomicin in Clostridioides Difficile Infection First Recurrence NCT05266807	Protocol
Hangan A., Rugina S., Mocanu E., Dumitru E., Dumitru I.M. Performance and Consequences for Fecal Transplant in the Treatment of Pseudomembranous Colitis. ARS Medica Tomitana, vol.26, no.3, 2020, pp.113-116	No comparison group for data that fit our criteria
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Ianiro G, Bibbò S, Masucci L, Quaranta G, Porcari S, Settanni CR, Lopetuso LR, Fantoni M, Sanguinetti M, Gasbarrini A, Cammarota G. Maintaining standard volumes, efficacy and safety, of fecal microbiota transplantation for C. difficile infection during the COVID-19 pandemic: A prospective cohort study. Dig Liver Dis. 2020 Dec;52(12):1390-1395	No comparison group
Ianiro G, Masucci L, Quaranta G, Simonelli C, Lopetuso LR, Sanguinetti M, Gasbarrini A, Cammarota G. Randomised clinical trial: faecal microbiota transplantation by colonoscopy plus vancomycin for the treatment of severe refractory Clostridium difficile infection-single versus multiple infusions. Aliment Pharmacol Ther. 2018 Jul;48(2):152-159.	FMT in both groups
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Joly, A. C.; Baylatry, M. T.; Hadache, C.; Bruneau, A.; Ducret, E.; Martelli, S.; Sokol, H. Faecal microbiota transplantation: Pharmaceutical experience of a French university hospital. International Journal of Clinical Pharmacy 2018;40(1)():219, 2018	Wrong study design
Juul FE, Garborg K, Bretthauer M, Skudal H, Øines MN, Wiig H, Rose Ø, Seip B, Lamont JT, Midtvedt T, Valeur J, Kalager M, Holme Ø, Helsingen L, Løberg M, Adami HO. Fecal Microbiota Transplantation for Primary Clostridium difficile Infection. N Engl J Med. 2018 Jun 28;378(26):2535-2536.	Wrong study design
Kao D, Wong K, Franz R, Cochrane K, Sherriff K, Chui L, Lloyd C, Roach B, Bai AD, Petrof EO, Allen-Vercoe E. The effect of a microbial ecosystem therapeutic (MET-2) on recurrent Clostridioides difficile infection: a phase 1, open-label, single-group trial. Lancet Gastroenterol Hepatol. 2021 Apr;6(4):282-291.	Not FMT
Kao DH, Roach B, Silva M, Beck P, Rioux KP, Madsen K, Goodman K, Xu H, Chang H, Louie T. A15 A Prospective, Non-Inferiority, Multi-Center, Randomized Trial	Wrong study design

Comparing Colonoscopy Vs Oral Capsule Delivered Fecal Microbiota Transplantation (Fmt) For Recurrent Clostridium Difficile Infection (RCDI). J Can Assoc Gastroenterol. 2018 Feb;1(Suppl 1):27–9.	
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Kelly CR, Yen EF, Grinspan AM, Kahn SA, Atreja A, Lewis JD, Moore TA, Rubin DT, Kim AM, Serra S, Nersesova Y, Fredell L, Hunsicker D, McDonald D, Knight R, Allegretti JR, Pekow J, Absah I, Hsu R, Vincent J, Khanna S, Tangen L, Crawford CV, Mattar MC, Chen LA, Fischer M, Arsenescu RI, Feuerstadt P, Goldstein J, Kerman D, Ehrlich AC, Wu GD, Laine L. Fecal Microbiota Transplantation Is Highly Effective in Real-World Practice: Initial Results From the FMT National Registry. Gastroenterology. 2021 Jan;160(1):183-192.e3.	No comparison group
Khanna S, Pardi DS, Jones C, Shannon WD, Gonzalez C, Blount K. RBX7455, a Non-frozen, Orally Administered Investigational Live Biotherapeutic, Is Safe, Effective, and Shifts Patients' Microbiomes in a Phase 1 Study for Recurrent Clostridioides difficile Infections. Clin Infect Dis. 2021 Oct 5;73(7):e1613-e1620.	Not FMT
Lee K, Mahoney M, Alonso C. Bezlotoxumab compared with fecal microbiota transplantation for prevention of recurrent Clostridioides difficile infection. In2020 ACCP VIRTUAL Annual Meeting (October 19-30) 2020 Oct 27. American College of Clinical Pharmacy.	Wrong study design
Lee at al. Comparing the efficacy of different methods of faecal microbiota transplantation via oral capsule, oesophagogastroduodenoscopy, colonoscopy, or gastric tube. JHI in press	Not CDI
Lee CH, Chai J, Hammond K, Jeon SR, Patel Y, Goldeh C, Kim P. Long-term durability and safety of fecal microbiota transplantation for recurrent or refractory Clostridioides difficile infection with or without antibiotic exposure. Eur J Clin Microbiol Infect Dis. 2019 Sep;38(9):1731-1735.	No relevant outcomes
Lee PC, Chang TE, Wang YP, Lee KC, Lin YT, Chiou JJ, Huang CW, Yang UC, Li FY, Huang HC, Wu CY, Huang YH, Hou MC. Alteration of gut microbial composition associated with the therapeutic efficacy of fecal microbiota transplantation in Clostridium difficile infection. J Formos Med Assoc. 2022 Sep;121(9):1636-1646.	No comparison group
Lee S, Drennan K, Simons G, Hepple A, Karlsson K, Lowman W, Gaylard PC, McNamara L, Fabian J. The 'ins and outs' of faecal microbiota transplant for recurrent Clostridium difficile diarrhoea at Wits Donald Gordon Medical Centre, Johannesburg, South Africa. S Afr Med J. 2018 Apr 25;108(5):403-407.	No comparison group
Lee, K.; Mahoney, M.; Alonso, C. Bezlotoxumab compared with fecal microbiota transplantation for prevention of recurrent Clostridioides difficile infection. JACCP Journal of the American College of Clinical Pharmacy 2020;3(8)():1605, 2020	Wrong study design
Lui RN, Wong SH, Lau LHS, Chan TT, Cheung KCY, Li A, Chin ML, Tang W, Ching JYL, Lam KLY, Chan PKS, Wu JCY, Sung JJY, Chan FKL, Ng SC. Faecal microbiota transplantation for treatment of recurrent or refractory Clostridioides difficile infection in Hong Kong. Hong Kong Med J. 2019 Jun;25(3):178-182.	No comparison group
Luo Y, Tixier EN, Grinspan AM. Fecal Microbiota Transplantation for Clostridioides difficile in High-Risk Older Adults Is Associated with Early Recurrence. Dig Dis Sci. 2020 Dec;65(12):3647-3651.	No comparison group
Mamo Y, Woodworth MH, Wang T, Dhere T, Kraft CS. Durability and Long-term Clinical Outcomes of Fecal Microbiota Transplant Treatment in Patients With	No comparison group

Recurrent Clostridium difficile Infection. Clin Infect Dis. 2018 May 17;66(11):1705-1711	
Meighani A, Hart BR, Bourgi K, Miller N, John A, Ramesh M. Outcomes of fecal microbiota transplantation for Clostridium difficile infection in patients with inflammatory bowel disease. Digestive diseases and sciences. 2017 Oct;62:2870-5.	Wrong study design
Mendelsohn RB, Kaltsas A, King S, Hwang C, Kassam Z, Abend AM, Kramer E, Kamboj M. Fecal Microbiota Transplantation Is Safe for Clostridiodies difficile Infection in Patients with Solid Tumors Undergoing Chemotherapy. Dig Dis Sci. 2022 Jun;67(6):2503-2509.	Duplicate, under Mendehlson, 2022
Mendolia, G.; Kassam, Z.; McClure, E. L.; Bi, H. S.; Chu, N.; Alm, E.; Geradin, Y.; Silverstein, M.; Smith, M.; Allegretti, J. R. Anaerobic Fecal Microbiota Transplantation Preparations Are Not Necessary for Treatment Successful Engraftment Microbial in Recurrent C.Difficile Infection. Gastroenterology 2020;158(6 Supplement 1)():S-991-S-992, 2020	Conference abstract
Minkoff NZ, Aslam S, Medina M, Tanner-Smith EE, Zackular JP, Acra S, Nicholson MR, Imdad A. Fecal microbiota transplantation for the treatment of recurrent Clostridioides difficile (Clostridium difficile). Cochrane Database of Systematic Reviews. 2023(4).	Wrong comparator
Mironova M, Ehrlich AC, Grinspan A, Protano MA. Fecal microbiota transplantation may reduce the mortality of patients with severe and fulminant Clostridioides difficile infection compared to standard-of-care antibiotics in a community hospital. J Dig Dis. 2022 Oct 2	No relevant outcomes
Nayi, Vipul MD; Brandt, Lawrence MD, MACG; Aroniadis, Olga MD, MSc. 159 The Role of Loperamide in Conjunction With Fecal Microbiota Transplantation (FMT) for Recurrent Clostridioides difficile Infection (rCDI). The American Journal of Gastroenterology 114():p S97, October 2019	Wrong study design
Nowak A, Hedenstierna M, Ursing J, Lidman C, Nowak P. Efficacy of Routine Fecal Microbiota Transplantation for Treatment of Recurrent Clostridium difficile Infection: A Retrospective Cohort Study. Int J Microbiol. 2019 Jul 1;2019:7395127	Comparison group not real FMT
Ooijevaar RE, van Nood E, Goorhuis A, Terveer EM, van Prehn J, Verspaget HW, van Beurden YH, Dijkgraaf MGW, Keller JJ. Ten-Year Follow-Up of Patients Treated with Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection from a Randomized Controlled Trial and Review of the Literature. Microorganisms. 2021 Mar 6;9(3):548.	No relevant outcomes, no comparison group
Ooijevaar RE, van Nood E, Goorhuis A, Terveer EM, van Prehn J, Verspaget HW, van Beurden YH, Dijkgraaf MGW, Keller JJ. Ten-Year Follow-Up of Patients Treated with Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection from a Randomized Controlled Trial and Review of the Literature. Microorganisms. 2021 Mar 6;9(3):548.	No relevant outcomes
Orenstein R, Dubberke ER, Khanna S, Lee CH, Yoho D, Johnson S, Hecht G, DuPont HL, Gerding DN, Blount KF, Mische S, Harvey A. Durable reduction of Clostridioides difficile infection recurrence and microbiome restoration after treatment with RBX2660: results from an open-label phase 2 clinical trial. BMC Infect Dis. 2022 Mar 12;22(1):245.	Not FMT
Orenstein R, Mische S, Mische S, Blount K, Blount K, Bancke L, Su X, Walsh D, Harvey A, Gonzalez C, Gerding DN, Gerding DN. LB5. A Long-Time Coming: Final 2-year Analysis of Efficacy, Durability, and Microbiome Changes in a Controlled Open-Label Trial of Investigational Microbiota-Based Drug RBX2660 for	Wrong study design

Recurrent Clostridioides difficile Infections. Open Forum Infect Dis. 2019 Oct 23;6(Suppl 2):S994–5. doi: 10.1093/ofid/ofz415.2488.	
Orenstein, R.; Su, X.; Gonzalez, C.; Shannon, B.; Blount, K.; Bancke, L.; Gerding, D. N. One and Done? Evaluation of Efficacy from a Single Administration of Investigational Microbiota-Based Drug Rbx2660 for Recurrent Clostridioides Difficile Infection: Comparison to Single-Administration Fecal Microbiota Transplant in Published Trials Gastroenterology 2020;158(6 Supplement 1)():S-989-S-990, 2020	Wrong study design
Pattison, Robert J. MD, MPH1; Sempokuya, Tomoki MD2; Murakami, Traci T. MD3. S0263 Factors Associated With Readmission and Recurrent Diarrhea After Fecal Microbiota Transplant (FMT) in Patients With Clostridioides difficile Infections: A Retrospective Cohort Study. The American Journal of Gastroenterology 115():p S68, October 2020.	Wrong study design
Perler BK, Chen B, Phelps E, Allegretti JR, Fischer M, Ganapini V, Krajiceck E, Kumar V, Marcus J, Nativ L, Kelly CR. Long-Term Efficacy and Safety of Fecal Microbiota Transplantation for Treatment of Recurrent Clostridioides difficile Infection. J Clin Gastroenterol. 2020 Sep;54(8):701-706.	No relevant outcomes, no comparison group
Perler BK, Chen B, Phelps E, Allegretti JR, Fischer M, Ganapini V, Krajiceck E, Kumar V, Marcus J, Nativ L, Kelly CR. Long-Term Efficacy and Safety of Fecal Microbiota Transplantation for Treatment of Recurrent Clostridioides difficile Infection. J Clin Gastroenterol. 2020 Sep;54(8):701-706.	No relevant outcomes
Pipek B, Valentová H, Fojtík P, Urban O. Faecal microbiota transplantation in the treatment of recurrent intestinal Clostridioides difficile infection - a ten-year single-center experience. Cas Lek Cesk. 2022 Summer;161(3-4):126-130.	No comparison group
Rode AA, Chehri M, Krogsgaard LR, Heno KK, Svendsen AT, Ribberholt I, Helms M, Engberg J, Schønning K, Tvede M, Andersen CØ, Jensen US, Petersen AM, Bytzer P. Randomised clinical trial: a 12-strain bacterial mixture versus faecal microbiota transplantation versus vancomycin for recurrent Clostridioides difficile infections. Aliment Pharmacol Ther. 2021 May;53(9):999-1009. doi: 10.1111/apt.16309.	Bacteriotherapy as control group
Rode, A. A.; Chehri, M.; Heno, K. K.; Krogsgaard, L. R.; Helms, M.; Engberg, J.; Schoenning, K.; Tvede, M.; Andersen, C. O.; Jensen, U. S.; et al. Cure of recurrent Clostridium difficile infection with a mix of 12 gut bacteria , faecal microbiota transplantation or oral vancomycin: results from an open-label multicentre randomised controlled trial. United european gastroenterology journal 2019;7(8):88-, 2019	Wrong study design
Roshan N, Clancy AK, Borody TJ. Faecal Microbiota Transplantation is Effective for the Initial Treatment of Clostridium difficile Infection: A Retrospective Clinical Review. Infect Dis Ther. 2020 Dec;9(4):935-942.	No relevant outcomes
Russell, L.; Roach, B.; Yang, D. Y.; Wang, C.; Wong, K.; Saxinger, L.; Monaghan, T.; Kao, D. H. Sequential Fecal Microbiota Transplant by Enema Plus Fidaxomicin in the Treatment of Severe or Fulminant Clostridioides Difficile Infection. Gastroenterology 2020;158(6 Supplement 1)():S-987, 2020	Wrong study design
Rustgi, S. D.; Tixier, E.; Luo, Y.; Yang, N.; Grinspan, L. T.; Hirten, R.; Grinspan, A. Patient Sex Does Not Impact Efficacy of Fecal Microbiota Transplant for C. Difficile Infection. Gastroenterology 2020;158(6 Supplement 1)():S-991, 2020	Wrong study design
Saha S, Mara K, Pardi DS, Khanna S. Durability of Response to Fecal Microbiota Transplantation After Exposure to Risk Factors for Recurrence in Patients With Clostridioides difficile Infection. Clin Infect Dis. 2021 Oct 5;73(7):e1706-e1712.	No relevant outcomes

Saha S, Mara K, Pardi DS, Khanna S. Long-term Safety of Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection. Gastroenterology. 2021 May;160(6):1961-1969.e3.	No relevant outcomes
Saha, S.; Pardi, D. S.; Khanna, S. Long-Term Safety of Fecal Microbiota Transplantation in the Treatment of Recurrent Clostridioides Difficile Infection Gastroenterology 2019;156(6 S1)():S-888	Wrong study design
Shin JH, Chaplin AS, Hays RA, Kolling GL, Vance S, Guerrant RL, Archbald-Pannone L, Warren CA. Outcomes of a Multidisciplinary Clinic in Evaluating Recurrent Clostridioides difficile Infection Patients for Fecal Microbiota Transplant: A Retrospective Cohort Analysis. J Clin Med. 2019 Jul 16;8(7):1036.	No relevant outcomes
Shull H, Martin E, Grogan T, Chen L, Uslan DZ. 508. High Rates of Cure and Long-Term Symptom Resolution With Both Capsule and Lower Gastrointestinal Fecal Microbiota Transplantation for Recurrent Clostridium difficile Infection. Open Forum Infect Dis. 2018 Nov 26;5(Suppl 1):S188.	Wrong study design
Singh T, Bedi P, Bumrah K, Gandhi D, Arora T, Verma N, Schleicher M, Rai MP, Garg R, Verma B, Sanaka MR. Fecal microbiota transplantation and medical therapy for Clostridium difficile infection: Meta-analysis of randomized controlled trials. Journal of clinical gastroenterology. 2022 Nov 13;56(10):881-8.	Wrong indication
Stebel R, Sva?inka R, Vojtilová L, Freibergerová M, Husa P. Fecal bacteriotherapy in the treatment of Clostridium difficile infection. Epidemiol Mikrobiol Imunol. 2018 Winter;67(3):104-109.	Not FMT
Stebel R., Vojtilova L., Svacinka R., Husa P., Faecal microbiota transplantation in the treatment of Clostridioides difficile infection, Human Microbiome Journal, Volume 16, 2020, 100070	No comparison group
Suchman K, Luo Y, Grinspan A. Fecal Microbiota Transplant for Clostridioides Difficile Infection Is Safe and Efficacious in an Immunocompromised Cohort. Dig Dis Sci. 2022 Oct;67(10):4866-4873.	Also included paediatric patients
Takahashi M, Ishikawa D, Sasaki T, Lu YJ, Kuwahara-Arai K, Kamei M, Shibuya T, Osada T, Hiramatsu K, Nagahara A. Faecal freezing preservation period influences colonization ability for faecal microbiota transplantation. J Appl Microbiol. 2019 Mar;126(3):973-984.	Wrong study design
Taylor, S.; Watson, J.; Chand, S. Complications and mortality in patients who have undergone fecal microbiota transplantation for Clostridium difficile infection: A single-center retrospective cohort study. Journal of Gastroenterology and Hepatology 2021;36(SUPPL 3)():136-137, 2021	Wrong study design
Terveer EM, van Gool T, Ooijevaar RE, Sanders IMJG, Boeije-Koppenol E, Keller JJ, Bart A, Kuijper EJ; Netherlands Donor Feces Bank (NDFB) Study Group. Human Transmission of Blastocystis by Fecal Microbiota Transplantation Without Development of Gastrointestinal Symptoms in Recipients. Clin Infect Dis. 2020 Dec 17;71(10):2630-2636.	No comparison group
Tixier EN, Verheyen E, Ungaro RC, Grinspan AM. Faecal microbiota transplant decreases mortality in severe and fulminant Clostridioides difficile infection in critically ill patients. Aliment Pharmacol Ther. 2019 Nov;50(10):1094-1099.	No relevant outcomes
Tixier, EN, Verheyen, E, Ungaro, RC, Grinspan, AM. Faecal microbiota transplant decreases mortality in severe and fulminant Clostridioides difficile infection in critically ill patients. Aliment Pharmacol Ther. 2019; 50: 1094– 1099	No relevant outcomes
Tucker, E.; Telfer, K.; Gill, M.; Dann, L.; Bryant, R.; Costello, S. Fecal microbiota transplantation using a centralized frozen stool bank is effective and safe for the treatment of severe Clostridioides difficile infection. Journal of Gastroenterology and Hepatology 2019;34(Supplement 2)():177, 2019	Wrong study design

van Gool T, Ooijevaar RE, Sanders IM, Boeije-Koppenol E, Keller JJ, Bart A, Kuijper EJ. Human transmission of Blastocystis by fecal microbiota transplantation without development of gastrointestinal symptoms in recipients. Clinical infectious diseases. 2020 Nov 15;71(10):2630-6.	Under Terveer, 2020
Varga A, Makszin L, Bufa A, Sipos D, Kása P, Pál S, Rosenstiel P, Sommer F, Kocsis B, Péterfi Z. Efficacy of lyophilised bacteria-rich faecal sediment and supernatant with reduced bacterial count for treating patients with Clostridioides difficile Infection–A novel method for capsule faecal microbiota transfer. Frontiers in Cellular and Infection Microbiology. 2023 Jan 23;13:1041384.	No relevant outcomes
Waldbaum, Carlos, et al. Faecal microbiota transplantation for Clostridioides difficile infection. Medicina 80.6 (2020): 633-639. [Spanish]	Not in English
Yeh YM, Cheng HT, Le PH, Chen CC, Kuo CJ, Chen CL, Chiu CT, Chiu CH. Implementation of fecal microbiota transplantation in a medical center for recurrent or refractory Clostridioides difficile infection and report of preliminary outcome. Biomed J. 2022 Jun;45(3):504-511.	No comparison group
Zellmer C, Sater MRA, Huntley MH, Osman M, Olesen SW, Ramakrishna B. Shiga Toxin-Producing Escherichia coli Transmission via Fecal Microbiota Transplant. Clin Infect Dis. 2021 Jun 1;72(11):e876-e880. d	Wrong study design

Question 7

Abdelghafar YA, AbdelQadir YH, Motawea KR, Nasr SA, Omran HA, Belal MM, Elhashash MM, AbdelAzim AA, Shah J. Efficacy and safety of fecal microbiota transplant in irritable bowel syndrome: An update based on meta-analysis of randomized control trials. Health science reports. 2022 Sep;5(5):e814.	Studies covered in another SR
Alabdaljabar MS, Aslam HM, Veeraballi S, Faizee FA, Husain BH, Iqbal SM, Hashmi SK, Faizee F, Hashmi S. Restoration of the original inhabitants: a systematic review on fecal microbiota transplantation for graft-versus-host disease. Cureus. 2022 Apr 6;14(4).	Included studies other than RCTs
Allegretti JR, Kassam Z, Mullish BH, Chiang A, Carrellas M, Hurtado J, Marchesi JR, McDonald JAK, Pechlivanis A, Barker GF, Miguéns Blanco J, Garcia-Perez I, Wong WF, Gerardin Y, Silverstein M, Kennedy K, Thompson C. Effects of Fecal Microbiota Transplantation With Oral Capsules in Obese Patients. Clin Gastroenterol Hepatol. 2020 Apr;18(4):855-863.e2.	No relevant outcomes
Aroniadis, O. C., Brandt, L. J., Oneto, C., Feuerstadt, P., Sherman, A., Wolkoff, A. W., … Keller, M. J. (2018). 742—a double-blind, randomized, placebo-controlled trial of Fecal Microbiota Transplantation Capsules (FMTC) for the treatment of diarrhea-predominant Irritable Bowel Syndrome (IBS-D). Gastroenterology, 154(6), S-154–S-155.	Wrong study design
Aroniadis, O. C., Brandt, L. J., Oneto, C., Feuerstadt, P., Sherman, A., Wolkoff, A. W., … Keller, M. J. (2019). Faecal microbiota transplantation for diarrhoea-predominant irritable bowel syndrome: A double-blind, randomised, placebo-controlled trial. The Lancet Gastroenterology & Hepatology, 1253(19), 1–11.	Included in systematic review (Wu)
Bajaj JS, Kassam Z, Fagan A, Gavis EA, Liu E, Cox IJ, Kheradman R, Heuman D, Wang J, Gurry T, Williams R, Sikaroodi M, Fuchs M, Alm E, John B, Thacker LR, Riva A, Smith M, Taylor-Robinson SD, Gillevet PM. Fecal microbiota transplant from a rational stool donor improves hepatic encephalopathy: A randomized clinical trial. Hepatology. 2017 Dec;66(6):1727-1738.	Included in systematic review (Hong, 2022)

Bajaj JS, Salzman NH, Acharya C, Sterling RK, White MB, Gavis EA, Fagan A, Hayward M, Holtz ML, Matherly S, Lee H, Osman M, Siddiqui MS, Fuchs M, Puri P, Sikaroodi M, Gillevet PM. Fecal Microbial Transplant Capsules Are Safe in Hepatic Encephalopathy: A Phase 1, Randomized, Placebo-Controlled Trial. Hepatology. 2019 Nov;70(5):1690-1703	Included in systematic review (Hong, 2022)
Bajaj, J. S.; Shamsaddini, A.; Fagan, A.; Sterling, R. K.; Gavis, E.; Khoruts, A.; Fuchs, M.; Lee, H.; Sikaroodi, M.; Gillevet, P. M., Fecal Microbiota Transplant in Cirrhosis Reduces Gut Microbial Antibiotic Resistance Genes: Analysis of Two Trials, Hepatology Communications 2021;5(2)():258-271, 2021	No relevant outcomes
Battipaglia, G.; Malard, F.; Therese Rubio, M.; Ruggeri, A.; Mamez, A. C.; Brissot, E.; Giannotti, F.; Dulery, R.; Christine Joly, A.; Baylatry, M. T.; Kossmann, M. J.; Tankovic, J.; Beaugerie, L.; Sokol, H.; Mohty, M., Fecal microbiota transplantation in immunocompromised patients carrying multidrugresistance bacteria. Bone Marrow Transplantation 2019;53():93-94, 2019	Wrong study design
Battipaglia, G.; Malard, F.; Rubio, M. T.; Ruggeri, A.; Mamez, A. C.; Brissot, E.; Giannotti, F.; Dulery, R.; Joly, A. C.; Baylatry, M. T.; Kossmann, M. J.; Tankovic, J.; Beaugerie, L.; Sokol, H.; Mohty, M., Fecal microbiota transplantation before or after allogeneic hematopoietic transplantation in patients with hematologic malignancies carrying multidrug-resistance bacteria. Haematologica 2019;104(8)():1682-1688	Wrong study design
Berard, L.; Montil, M.; Le Gall, G.; Lalande, V.; De Rougemont, A.; Daguenel, A.; Cachanado, M.; Rousseau, A.; Drouet, E.; Rosenzwajg, M.; Hagege, H.; Klatzman, D.; Arrive, L.; Bourrier, A.; Camus, M.; Chafai, N.; Chambenois, E.; Chaput, U.; Martineau, C.; Monnier-Cholley, L.; Debove, C.; Dray, X.; Flejou, J. F.; Hoyeau, N.; Kirchgesner, J.; Landman, C.; Lefevre, J. H.; Marteau, P.; Nion-Larmurier, I.; Ozenne, V.; Parc, Y.; Seksik, P.; Sokol, H.; Svrcek, M.; Beaugerie, L.; Simon, T. Fecal microbiota transplantation to maintain remission in Crohn's disease: A pilot randomized controlled study Microbiome 2020;8(1) (no pagination)():, 2020	Duplicate, under Sokol, 2020
Biernat, M. M.; Urbaniak-Kujda, D.; Dybko, J.; Kapelko-Slowik, K.; Prajs, I.; Wrobel, T., Fecal microbiota transplantation in the treatment of intestinal steroid-resistant graft-versus-host disease: two case reports and a review of the literature, Journal of International Medical Research 2020;48(6):, 2020	Wrong study design
Bilsen MP, Lambregts MMC, van Prehn J, Kuijper EJ. Faecal microbiota replacement to eradicate antimicrobial resistant bacteria in the intestinal tract - a systematic review. Curr Opin Gastroenterol. 2022 Jan 1;38(1):15-25.	Systematic review but no RCTs included
Blanchaert, C.; Strubbe, B.; Peeters, H., Fecal microbiota transplantation in ulcerative colitis, Acta Gastro-Enterologica Belgica 2019;82(4)():519-528, 2019	SR of case reports
Bloom, P. P.; Donlan, J.; Torres Soto, M.; Daidone, M.; Hohmann, E.; Chung, R. T. Fecal microbiota transplant improves cognition in hepatic encephalopathy and its effect varies by donor and recipient, Hepatology Communications. 2022;():, 2022	Wrong study design
Borba, H. H.; Caldeira, L. F.; Tonin, F. S.; Wiens, A.; Fernandez-Llimos, F.; Pontarolo, R. Effects of Fecal Microbiota Transplantation in Inflammatory Bowel Disease Patients: A Systematic Review and Meta-Analysis. Value in Health Regional Issues 2019;19(Supplement)():S34, 2019	Wrong study design
Caldeira LD, Borba HH, Tonin FS, Wiens A, Fernandez-Llimos F, Pontarolo R. Fecal microbiota transplantation in inflammatory bowel disease patients: A systematic review and meta-analysis. PLoS One. 2020 Sep 18;15(9):e0238910.	Included designs other than RCTs

Cao Y, Zhang B, Wu Y, Wang Q, Wang J, Shen F. The Value of Fecal Microbiota Transplantation in the Treatment of Ulcerative Colitis Patients: A Systematic Review and Meta-Analysis. Gastroenterol Res Pract. 2018 Apr 3;2018:5480961.	Systematic review but not only RCTs included. Another SR has more RCTs in analysis.
Chen and K. Zou, "Clinical efficacy of fecal bacteria transplantation in the treatment of ulcerative colitis," Clinical Education of General Practice, vol. 17, no. 3, pp. 268-269, 2019.	Not in English
Chen Q, Fan Y, Zhang B, Yan C, Zhang Q, Ke Y, Chen Z, Wang L, Shi H, Hu Y, Huang Q. Capsulized Fecal Microbiota Transplantation Induces Remission in Patients with Ulcerative Colitis by Gut Microbial Colonization and Metabolite Regulation. Microbiology Spectrum. 2023 Jun 15;11(3):e04152-22.	Wrong study design
Cheng F, Huang Z, Wei W, Li Z. Fecal microbiota transplantation for Crohn's disease: a systematic review and meta-analysis. Tech Coloproctol. 2021 May;25(5):495-504.	Included RCTs and other designs, the only RCT already included
Chinna Meyyappan A, Forth E, Wallace CJK, Milev R. Effect of fecal microbiota transplant on symptoms of psychiatric disorders: a systematic review. BMC Psychiatry. 2020 Jun 15;20(1):299.	None of the studies included human subjects
Cold, F.; Baunwall, S. M. D.; Dahlerup, J. F.; Petersen, A. M.; Hvas, C. L.; Hansen, L. H., Systematic review with meta-analysis: encapsulated faecal microbiota transplantation - evidence for clinical efficacy. Therapeutic Advances in Gastroenterology 2021;14(no pagination):, 2021	Treatment of CDI
Costello SP, Hughes PA, Waters O, Bryant RV, Vincent AD, Blatchford P, Katsikeros R, Makanyanga J, Campaniello MA, Mavrangelos C, Rosewarne CP, Bickley C, Peters C, Schoeman MN, Conlon MA, Roberts-Thomson IC, Andrews JM. Effect of Fecal Microbiota Transplantation on 8-Week Remission in Patients With Ulcerative Colitis: A Randomized Clinical Trial. JAMA. 2019 Jan 15;321(2):156-164.	Included in systematic review (Chehade, 2022)
Craven, L.; Rahman, A.; Nair Parvathy, S.; Beaton, M.; Silverman, J.; Qumosani, K.; Hramiak, I.; Hegele, R.; Joy, T.; Meddings, J.; et al. Allogenic Fecal Microbiota Transplantation in Patients With Nonalcoholic Fatty Liver Disease Improves Abnormal Small Intestinal Permeability: a Randomized Control Trial American journal of gastroenterology 2020	No direct comparison between intervention and control group
Crothers, J. W.; Chu, N. D.; Nguyen, L. T. T.; Phillips, M.; Collins, C.; Fortner, K.; Del Rio-Guerra, R.; Lavoie, B.; Callas, P.; Velez, M.; Cohn, A.; Elliott, R. J.; Wong, W. F.; Vo, E.; Wilcox, R.; Smith, M.; Kassam, Z.; Budd, R.; Alm, E. J.; Mawe, G. M.; Moses, P. L., Daily, oral FMT for long-term maintenance therapy in ulcerative colitis: results of a single-center, prospective, randomized pilot study, BMC Gastroenterology 2021;21(1) (no pagination)():, 2021	Maintenance therapy
Dang X, Xu M, Liu D, Zhou D, Yang W. Assessing the efficacy and safety of fecal microbiota transplantation and probiotic VSL#3 for active ulcerative colitis: A systematic review and meta-analysis. PLoS One. 2020 Mar 17;15(3):e0228846.	FMT + probiotics
Davies C, Mishra D, Eshraghi RS, Mittal J, Sinha R, Bulut E, Mittal R, Eshraghi AA. Altering the gut microbiome to potentially modulate behavioral manifestations	Paediatric population

in autism spectrum disorders: A systematic review. Neurosci Biobehav Rev. 2021 Sep;128:549-557.	
De Fatima Caldeira LF, Borba HH, Tonin FS, Wiens A, Fernandez-Llimos F, Pontarolo R. Fecal microbiota transplantation in inflammatory bowel disease patients: A systematic review and meta-analysis. PLoS One. 2020 Sep 18;15(9):e0238910.	Included RCTs and other designs, RCTs covered in other SRs
de Groot, P.; Scheithauer, T.; Bakker, G. J.; Prodan, A.; Levin, E.; Khan, M. T.; Herrema, H.; Ackermans, M.; Serlie, M. J. M.; de Brauw, M.; Levels, J. H. M.; Sales, A.; Gerdes, V. E.; Stahlman, M.; Schimmel, A. W. M.; Dallinga-Thie, G.; Bergman, J. J.; Holleman, F.; Hoekstra, J. B. L.; Groen, A.; Backhed, F.; Nieuwdorp, M. Donor metabolic characteristics drive effects of faecal microbiota transplantation on recipient insulin sensitivity, energy expenditure and intestinal transit time Gut 2020	Both groups had FMT
De Groot P, Nikolic T, Pellegrini S, Sordi V, Imangaliyev S, Rampanelli E, Hanssen N, Attaye I, Bakker G, Duinkerken G, Joosten A. Faecal microbiota transplantation halts progression of human new-onset type 1 diabetes in a randomised controlled trial. Gut. 2021 Jan 1;70(1):92-105.	No relevant outcomes
Deng Y, Chen W, You Y, Tang Y, Hao Q, Ye Z, et al. Efficacy observation of fecal bacterial transplantation in mild to moderate ulcerative colitis of left colon. Clin J Digestive Dis (2020) 32(03):172–5	Not available, most likely not in English
Dharmaratne P, Rahman N, Leung A, Ip M. Is there a role of faecal microbiota transplantation in reducing antibiotic resistance burden in gut? A systematic review and Meta-analysis. Annals of Medicine. 2021 Jan 1;53(1):662-81.	Included designs other than RCTs
DuPont HL, Suescun J, Jiang ZD, Brown EL, Essigmann HT, Alexander AS, DuPont AW, Iqbal T, Utay NS, Newmark M, Schiess MC. Fecal microbiota transplantation in Parkinson's disease—A randomized repeat-dose, placebo-controlled clinical pilot study. Frontiers in Neurology. 2023 Mar 2;14:1104759.	New indication, not searched systematically, no relevant outcomes
El Hage Chehade, N.; Issak, A.; Ghoneim, S.; Chahine, A.; Hashash, J. Investigation of the benefit of fecal microbiota transplantation in prevention of hepatic encephalopathy in patients with decompensated liver cirrhosis: A systematic review and meta-analysis of clinical trials. American Journal of Gastroenterology 2021;116(SUPPL)():S572, 2021	Wrong study design
Elhusein AM, Fadlalmola HA. Efficacy of Fecal Microbiota Transplantation in Irritable Bowel Syndrome Patients: An Updated Systematic Review and Meta-Analysis. Gastroenterol Nurs. 2022 Jan-Feb 01;45(1):11-20.	Same studies as Wu
El-Salhy M, Hatlebakk JG, Gilja OH, Bråthen Kristoffersen A, Hausken T. Efficacy of faecal microbiota transplantation for patients with irritable bowel syndrome in a randomised, double-blind, placebo-controlled study. Gut. 2020 May;69(5):859-867. doi: 10.1136/gutjnl-2019-319630.	Included in SR by Wu, 2022
El-Salhy M, Kristoffersen AB, Valeur J, Casen C, Hatlebakk JG, Gilja OH, Hausken T. Long-term effects of fecal microbiota transplantation (FMT) in patients with irritable bowel syndrome. Neurogastroenterol Motil. 2022 Jan;34(1):e14200.	Wrong study design
El-Salhy M, Winkel R, Casen C, Hausken T, Gilja OH, Hatlebakk JG. Efficacy of Fecal Microbiota Transplantation for Patients With Irritable Bowel Syndrome at 3 Years After Transplantation. Gastroenterology. 2022 Oct;163(4):982-994.e14	No relevant outcomes
El-Salhy M, Casen C, Valeur J, Hausken T, Hatlebakk JG. Responses to faecal microbiota transplantation in female and male patients with irritable bowel syndrome. World J Gastroenterol. 2021 May 14;27(18):2219-2237.	Assessed for difference in males and females

El-Salhy M, Valeur J, Hausken T, Gunnar Hatlebakk J. Changes in fecal short-chain fatty acids following fecal microbiota transplantation in patients with irritable bowel syndrome. Neurogastroenterol Motil. 2021 Feb;33(2):e13983.	No relevant outcomes
Fagan, A.; Gavis, E.; Kassam, Z.; Heuman, D.; Fuchs, M.; John, B.; Sikaroodi, M.; Gillevet, P. M.; Bajaj, J. S. Sustained Long-Term Clinical and Cognitive Improvement after Fecal Microbiota Transplantation in Cirrhosis. Gastroenterology 2018;154(6 Supplement 1)():S-59-S-60, 2018	Wrong study design
Fang H, Fu L, Li X, Lu C, Su Y, Xiong K, Zhang L. Long-term efficacy and safety of monotherapy with a single fresh fecal microbiota transplant for recurrent active ulcerative colitis: a prospective randomized pilot study. Microb Cell Fact. 2021 Jan 19;20(1):18.	No relevant outcomes
Fang H, Fu L, Wang J. Protocol for Fecal Microbiota Transplantation in Inflammatory Bowel Disease: A Systematic Review and Meta-Analysis. Biomed Res Int. 2018 Sep 13;2018:8941340.	Also included paediatric patients
Fehily SR, Basnayake C, Wright EK, Kamm MA. Fecal microbiota transplantation therapy in Crohn's disease: Systematic review. J Gastroenterol Hepatol. 2021 Oct;36(10):2672-2686.	Included RCTs and other designs
Fischer M, Khoruts A. Oral lyophilised microbiota for the treatment of ulcerative colitis. The Lancet Gastroenterology & Hepatology. 2022 Feb 1;7(2):108-9.	Wrong study design
Fretheim H, Chung BK, Didriksen H, Bækkevold ES, Midtvedt Ø, Brunborg C, Holm K, Valeur J, Tennøe AH, Garen T, Midtvedt T. Fecal microbiota transplantation in systemic sclerosis: A double-blind, placebo-controlled randomized pilot trial. PLoS One. 2020 May 21;15(5):e0232739.	No relevant outcomes
Green JE, Davis JA, Berk M, Hair C, Loughman A, Castle D, Athan E, Nierenberg AA, Cryan JF, Jacka F, Marx W. Efficacy and safety of fecal microbiota transplantation for the treatment of diseases other than Clostridium difficile infection: a systematic review and meta-analysis. Gut Microbes. 2020 Nov 9;12(1):1-25.	SR, relevant RCTs included in other SRs
Green JE, Berk M, Mohebbi M, Loughman A, McGuinness AJ, Castle D, Chatterton ML, Perez J, Strandwitz P, Athan E, Hair C. Feasibility, Acceptability, and Safety of Faecal Microbiota Transplantation in the Treatment of Major Depressive Disorder: A Pilot Randomized Controlled Trial. The Canadian Journal of Psychiatry. 2023 May;68(5):315-26.	No relevant outcomes
Hadi, Y.; Khan, A.; Naqvi, S. F.; Jannat, R. U.; Khan, M.; Kupec, J. T. Fecal microbiota transplant in graft-versus-host disease of the intestines: A comprehensive pooled analysis. American Journal of Gastroenterology 2019;114(Supplement)():S102, 2019	Wrong study design
Haifer C, Paramsothy S, Kaakoush NO, Saikal A, Ghaly S, Yang T, Luu LDW, Borody TJ, Leong RW. Lyophilised oral faecal microbiota transplantation for ulcerative colitis (LOTUS): a randomised, double-blind, placebo-controlled trial. Lancet Gastroenterol Hepatol. 2022 Feb;7(2):141-151.	Included in SR by Chehade
Haifer C, Saikal A, Paramsothy R, Kaakoush NO, Leong RW, Borody TJ, Kamm MA, Paramsothy S. Response to faecal microbiota transplantation in ulcerative colitis is not sustained long term following induction therapy. Gut. 2021 Nov;70(11):2210-2211.	Wrong study design
Holster S, Lindqvist CM, Repsilber D, Salonen A, de Vos WM, König J, Brummer RJ. The Effect of Allogenic Versus Autologous Fecal Microbiota Transfer on Symptoms, Visceral Perception and Fecal and Mucosal Microbiota in Irritable	Included in SR by Wu, 2022

Bowel Syndrome: A Randomized Controlled Study. Clin Transl Gastroenterol. 2019 Apr;10(4):e00034.	
Holster S, Lindqvist CM, Repsilber D, Salonen A, de Vos WM, König J, Brummer RJ. The effect of allogenic versus autologous fecal microbiota transfer on symptoms, visceral perception and fecal and mucosal microbiota in irritable bowel syndrome: a randomized controlled study. Clinical and translational gastroenterology. 2019 Apr;10(4).	No relevant outcomes
Holvoet, T.; Joossens, M.; Jerina, B.; Christiaens, E.; Heyerick, L.; Verhasselt, B.; De Vos, M.; Hindryckx, P.; Raes, J.; De Looze, D., Fecal Microbiota Transplantation in Irritable Bowel Syndrome with Predominant Abdominal Bloating: Results from a Double Blind, Placebo-Controlled Clinical Trial. Gastroenterology 2018;154(6 Supplement 1)():S-130, 2018	Wrong study design
Holvoet T, Joossens M, Vázquez-Castellanos JF, Christiaens E, Heyerick L, Boelens J, Verhasselt B, van Vlierberghe H, De Vos M, Raes J, De Looze D. Fecal Microbiota Transplantation Reduces Symptoms in Some Patients With Irritable Bowel Syndrome With Predominant Abdominal Bloating: Short- and Long-term Results From a Placebo-Controlled Randomized Trial. Gastroenterology. 2021 Jan;160(1):145-157.e8.	Included in SR by Wu, 2022
Holster, S.; Brummer, R. J.; Repsilber, D.; Konig, J. The effect of faecal microbiota transfer on visceral hypersensitivity in patients with irritable bowel syndrome. United European Gastroenterology Journal 2018;6(8 Supplement)():A15, 2018	Wrong study design
Huang C, Huang Z, Ding L, Fu Y, Fan J, Mei Q, Lou L, Wang J, Yin N, Lu Y, Guo S. Fecal microbiota transplantation versus glucocorticoids for the induction of remission in mild to moderate ulcerative colitis. Journal of Translational Medicine. 2022 Aug 12;20(1):354.	Wrong study design
Huang T, Xu J, Wang M, Pu K, Li L, Zhang H, Liang Y, Sun W, Wang Y. An updated systematic review and meta-analysis of fecal microbiota transplantation for the treatment of ulcerative colitis. Medicine. 2022 Jul 7;101(30).	Included in another SR
Hussain M, Deliwala S, Chinnapan J, Schueler SA. S843 Efficacy and Safety of Fecal Microbiota Transplantation in the Treatment of Active Inflammatory Bowel Disease-An Updated Systematic Review and Meta-Analysis of Randomized Controlled Trials. Official journal of the American College of Gastroenterology| ACG. 2022 Oct 1;117(10S):e609.	Included studies other than RCT
Huttner BD, de Lastours V, Wassenberg M, Maharshak N, Mauris A, Galperine T, Zanichelli V, Kapel N, Bellanger A, Olearo F, Duval X, Armand-Lefevre L, Carmeli Y, Bonten M, Fantin B, Harbarth S; R-Gnosis WP3 study group. A 5-day course of oral antibiotics followed by faecal transplantation to eradicate carriage of multidrug-resistant Enterobacteriaceae: a randomized clinical trial. Clin Microbiol Infect. 2019 Jul;25(7):830-838.	FMT + abx in intervention and neither in control group
Ianiro G, Eusebi LH, Black CJ, Gasbarrini A, Cammarota G, Ford AC. Systematic review with meta-analysis: efficacy of faecal microbiota transplantation for the treatment of irritable bowel syndrome. Aliment Pharmacol Ther. 2019 Aug;50(3):240-248.	SR, same studies included in SR by Wu, 2022
Imdad A, Pandit NG, Zaman M, Minkoff NZ, Tanner-Smith EE, Gomez-Duarte OG, Acra S, Nicholson MR. Fecal transplantation for treatment of inflammatory bowel disease. Cochrane Database of Systematic Reviews. 2023(4).	Also included paediatric population
Johnsen PH, Hilpüsch F, Cavanagh JP, Leikanger IS, Kolstad C, Valle PC, Goll R. Faecal microbiota transplantation versus placebo for moderate-to-severe irritable bowel syndrome: a double-blind, randomised, placebo-controlled,	Included in SR by Wu, 2022

parallel-group, single-centre trial. Lancet Gastroenterol Hepatol. 2018 Jan;3(1):17-24. doi: 10.1016/S2468-1253(17)30338-2.	
Johnsen PH, Hilpüsch F, Valle PC, Goll R. The effect of fecal microbiota transplantation on IBS related quality of life and fatigue in moderate to severe non-constipated irritable bowel: Secondary endpoints of a double blind, randomized, placebo-controlled trial. EBioMedicine. 2020 Jan;51:102562.	Follow-up of above paper, no relevant data
Kayal M, Lambin T, Pinotti R, Dubinsky MC, Grinspan A. A Systematic Review of Fecal Microbiota Transplant for the Management of Pouchitis. Crohns Colitis 360. 2020 May 12;2(2):otaa034	Included RCTs and oter study designs
Kedia S, Virmani S, Vuyyuru SK, Kumar P, Kante B, Sahu P, Kaushal K, Farooqui M, Singh M, Verma M, Bajaj A. Faecal microbiota transplantation with anti-inflammatory diet (FMT-AID) followed by anti-inflammatory diet alone is effective in inducing and maintaining remission over 1 year in mild to moderate ulcerative colitis: a randomised controlled trial. Gut. 2022 Dec 1;71(12):2401-13.	Wrong study design
Khan, A. Y.; Hadi, Y. Fecal Microbiota Transplant in Graft Versus Host Disease of the Gut; Pooled Analysis of Efficacy and Safety. Gastroenterology 2019;156(6 S1)():S-678, 2019	Wrong study design
Koopen AM, Almeida EL, Attaye I, Witjes JJ, Rampanelli E, Majait S, Kemper M, Levels JHM, Schimmel AWM, Herrema H, Scheithauer TPM, Frei W, Dragsted L, Hartmann B, Holst JJ, O'Toole PW, Groen AK, Nieuwdorp M. Effect of Fecal Microbiota Transplantation Combined With Mediterranean Diet on Insulin Sensitivity in Subjects With Metabolic Syndrome. Front Microbiol. 2021 Jun 10;12:662159.	Data in before-after format
Kootte RS, Levin E, Salojärvi J, Smits LP, Hartstra AV, Udayappan SD, Hermes G, Bouter KE, Koopen AM, Holst JJ, Knop FK, Blaak EE, Zhao J, Smidt H, Harms AC, Hankemeijer T, Bergman JJGHM, Romijn HA, Schaap FG, Olde Damink SWM, Ackermans MT, Dallinga-Thie GM, Zoetendal E, de Vos WM, Serlie MJ, Stroes ESG, Groen AK, Nieuwdorp M. Improvement of Insulin Sensitivity after Lean Donor Feces in Metabolic Syndrome Is Driven by Baseline Intestinal Microbiota Composition. Cell Metab. 2017 Oct 3;26(4):611-619.e6.	Data in before-after format
Kousgaard S.J.; Cold F.; Halkjaer S.I.; Petersen A.M.; Nielsen H.L.; Kirk K.F.; Hansen J.M.; Kjeldsen J.; Thorlacius-Ussing O. A randomised placebo-controlled trial of repeated faecal microbiota transplantation in patients with chronic pouchitis -The micropouch study. Colorectal Disease / 2022;24(Supplement 3):149	Wrong study design
Kragsnaes MS, Kjeldsen J, Horn HC, Munk HL, Pedersen JK, Just SA, Ahlquist P, Pedersen FM, de Wit M, Möller S, Andersen V. Safety and efficacy of faecal microbiota transplantation for active peripheral psoriatic arthritis: an exploratory randomised placebo-controlled trial. Annals of the rheumatic diseases. 2021 Sep 1;80(9):1158-67.	No relevant outcomes
Lahtinen P, Jalanka J, Hartikainen A, Mattila E, Hillilä M, Punkkinen J, Koskenpato J, Anttila VJ, Tillonen J, Satokari R, Arkkila P. Randomised clinical trial: faecal microbiota transplantation versus autologous placebo administered via colonoscopy in irritable bowel syndrome. Aliment Pharmacol Ther. 2020 Jun;51(12):1321-1331.	Included in SR by Wu, 2022
Lahtinen P, Jalanka J, Mattila E, Tillonen J, Bergman P, Satokari R, Arkkila P. Fecal microbiota transplantation for the maintenance of remission in patients with ulcerative colitis: A randomized controlled trial. World Journal of Gastroenterology. 2023 May 5;29(17):2666.	No relevant outcomes

Lai CY, Sung J, Cheng F, Tang W, Wong SH, Chan PKS, Kamm MA, Sung JJY, Kaplan G, Chan FKL, Ng SC. Systematic review with meta-analysis: review of donor features, procedures and outcomes in 168 clinical studies of faecal microbiota transplantation. Aliment Pharmacol Ther. 2019 Feb;49(4):354-363.	Not relevant, researched indications for FMT being given
Lam WC, Zhao C, Ma WJ, Yao L. The Clinical and Steroid-Free Remission of Fecal Microbiota Transplantation to Patients with Ulcerative Colitis: A Meta-Analysis. Gastroenterol Res Pract. 2019 Apr 15;2019:1287493.	SR, included RCTs and other designs
Lee, J. H.; Shin, J. B.; Ko, W. J.; Kwon, K. S.; Kim, H.; Shin, Y. W. Efficacy and safety of fecal microbiota transplantation on clearance of multi-drug resistance organism in multicomorbid patients: A prospective non-randomized comparison trial. United European Gastroenterology Journal 2020;8(8 SUPPL)():499, 2020	Wrong study design
Leo S, Lazarevic V, Girard M, et al.. Metagenomic characterization of gut microbiota of carriers of extended-spectrum beta-lactamase or carbapenemase-producing Enterobacteriaceae following treatment with oral antibiotics and fecal microbiota transplantation: results from a multicenter randomized trial. Microorganisms. 2020;8(6):941–915	Also included antibiotics in intervention group but not in comparison
Leong KSW, Jayasinghe TN, Wilson BC, Derraik JGB, Albert BB, Chiavaroli V, Svirskis DM, Beck KL, Conlon CA, Jiang Y, Schierding W, Vatanen T, Holland DJ, O'Sullivan JM, Cutfield WS. Effects of Fecal Microbiome Transfer in Adolescents With Obesity: The Gut Bugs Randomized Controlled Trial. JAMA Netw Open. 2020 Dec 1;3(12):e2030415.	Paediatric population
Li Y, Zhang T, Sun J, Liu N. Fecal microbiota transplantation and health outcomes: An umbrella review of meta-analyses of randomized controlled trials. Frontiers in Cellular and Infection Microbiology. 2022 Jun 27;12:899845.	Studies covered in another SR
Liu X, Li Y, Wu K, Shi Y, Chen M. Fecal Microbiota Transplantation as Therapy for Treatment of Active Ulcerative Colitis: A Systematic Review and Meta-Analysis. Gastroenterol Res Pract. 2021 Apr 23;2021:6612970.	SR, same RCTs included in Chehade
Liu, N.; Zhang, T.; Sun, J.; Fu, J.; Li, H. The clinical efficacy of faecal microbiota transplantation: An umbrella review of randomized controlled trials. medRxiv. 2021;19():, 2021	Pre-print
Madsen AMA, Halkjær SI, Christensen AH, Günther S, Browne PD, Kallemose T, Hansen LH, Petersen AM. The effect of faecal microbiota transplantation on abdominal pain, stool frequency, and stool form in patients with moderate-to-severe irritable bowel syndrome: results from a randomised, double-blind, placebo-controlled study. Scand J Gastroenterol. 2021 Jul;56(7):761-769.	No relevant outcomes
Madsen M, Kimer N, Bendtsen F, Petersen AM. Fecal microbiota transplantation in hepatic encephalopathy: a systematic review. Scand J Gastroenterol. 2021 May;56(5):560-569. doi: 10.1080/00365521.2021.1899277.	SR, RCTs already covered by Hong
Mahajan, R.; Midha, V.; Mehta, V.; Singh, A.; Khattar, H.; Narang, V.; Sood, A. Faecal microbiota transplantation for maintenance of clinical remission in patients with active ulcerative colitis: A randomised control trial, Gut 2018;67(Supplement 1)():A300, 2018	Wrong study design
Mazzawi, T.; Lied Arslan, G.; Hov, J. R.; Valeur, J.; Sangnes, D. A.; El-Salhy, M.; Gilja, O. H.; Hatlebakk, J. G.; Hausken, T., Effect of faecal microbiota transplantation on gut microenvironment and symptoms in patients with irritable bowel syndrome. Neurogastroenterology and Motility. Conference: 3rd Meeting of the Federation of Neurogastroenterology and Motility and	Wrong study design

Postgraduate Course on Gastrointestinal Motility, FNM 2018;30(Supplement 1):, 2018	
Mocanu V, Rajaruban S, Dang J, Kung JY, Deehan EC, Madsen KL. Repeated Fecal Microbial Transplantations and Antibiotic Pre-Treatment Are Linked to Improved Clinical Response and Remission in Inflammatory Bowel Disease: A Systematic Review and Pooled Proportion Meta-Analysis. J Clin Med. 2021 Mar 1;10(5):959.	SR, relevant studies already included
Mohan BP, Loganathan P, Khan SR, Garg G, Muthusamy A, Ponnada S, Pasam RT, Chandan S, Tuteja A. Fecal microbiota transplant delivered via invasive routes in irritable bowel syndrome: A systematic review and meta-analysis of randomized controlled trials. Indian Journal of Gastroenterology. 2023 May 29:1-9.	Studies covered in another SR
Myneedu K, Deoker A, Schmulson MJ, Bashashati M. Fecal microbiota transplantation in irritable bowel syndrome: A systematic review and meta-analysis. United European Gastroenterol J. 2019 Oct;7(8):1033-1041.	Included RCTs and case series, RCTs covered by Wu
Nguyen, A.; Bustami, J.; Adcook, S.; Samiullah, H.; Woo, J.; Le, A.; Shi, M.; Afghani, B. Effectiveness of fecal microbiota transplant in patients with ulcerative colitis: A literature review. Journal of Investigative Medicine 2020;68(1)():A112-A113, 2020	Wrong study design
Patel, D.; Daxini, A.; Baniya, R.; Nandi, N.; Ahmad, A. S., Fecal Microbiota Transplantation (Fmt) for Irritable Bowel Syndrome (Ibs): A Systematic Review and Meta-Analysis, Gastroenterology 2019;156(6 Supplement 1)():S-1156-S-1157, 2019	Wrong study design
Pession A, Zama D, Muratore E, Leardini D, Gori D, Guaraldi F, Prete A, Turroni S, Brigidi P, Masetti R. Fecal Microbiota Transplantation in Allogeneic Hematopoietic Stem Cell Transplantation Recipients: A Systematic Review. J Pers Med. 2021 Feb 4;11(2):100.	Treatment of CDI
Proença IM, Allegretti JR, Bernardo WM, de Moura DTH, Ponte Neto AM, Matsubayashi CO, Flor MM, Kotinda APST, de Moura EGH. Fecal microbiota transplantation improves metabolic syndrome parameters: systematic review with meta-analysis based on randomized clinical trials. Nutr Res. 2020 Nov;83:1-14.	SR, included studies for people without metabolic syndrome
Prosperi M, Santocchi E, Guiducci L, Frinzi J, Morales MA, Tancredi R, Muratori F, Calderoni S. Interventions on Microbiota: Where Do We Stand on a Gut-Brain Link in Autism? A Systematic Review. Nutrients. 2022 Jan 20;14(3):462	Paediatric population, no RCTs w/ FMT
Qiao X, Biliński J, Wang L, Yang T, Luo R, Fu Y, Yang G. Safety and efficacy of fecal microbiota transplantation in the treatment of graft-versus-host disease. Bone Marrow Transplantation. 2023 Jan;58(1):10-9.	Wrong study design
Rashidi A, Ebadi M, Rehman TU, Elhusseini H, Kazadi D, Halaweish H, Khan MH, Hoeschen A, Cao Q, Luo X, Holtan SG. A Double-Blind Placebo-Controlled Trial of Fecal Microbiota Transplantation in Allogeneic Hematopoietic Cell Transplantation Recipients. In2023 Tandem Meetings| Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR 2023 Feb 15. Tandem Meetings.	Wrong study design
Rodrigues T, Rodrigues Fialho S, Araújo JR, Rocha R, Moreira-Rosário A. Procedures in Fecal Microbiota Transplantation for Treating Irritable Bowel Syndrome: Systematic Review and Meta-Analysis. Journal of Clinical Medicine. 2023 Feb 21;12(5):1725.	Studies covered in another SR
Rokkas T, Hold GL. A systematic review, pairwise meta-analysis and network meta-analysis of randomized controlled trials exploring the role of fecal	Studies covered in another SR

microbiota transplantation in irritable bowel syndrome. European Journal of Gastroenterology & Hepatology. 2023 Apr 1;35(4):471-9.	
Rossen, N.; Fuentes, S.; Van Der Spek, M.; Tijssen, J.; Hartman, J.; Duflou, A.; Mathus-Vliegen, L.; De Vos, W.; Zoetendal, E.; D'Haens, G.; et al. Faecal microbiota transplantation in Ulcerative Colitis: a randomised controlled trial. Journal of Crohn's & colitis 2015;9():S2-, 2015	Wrong study design
Saha S, Tariq R, Tosh PK, Pardi DS, Khanna S. Faecal microbiota transplantation for eradicating carriage of multidrug-resistant organisms: a systematic review. Clin Microbiol Infect. 2019 Aug;25(8):958-963.	Included RCTs and other designs, RCT excluded as + abx (Hutner)
Samuthpongtorn C, Kantagowit P, Pittayanon R, Patcharatrakul T, Gonlachanvit S. Fecal microbiota transplantation in irritable bowel syndrome: A meta-analysis of randomized controlled trials. Frontiers in Medicine. 2022 Nov 3;9:1039284.	Studies covered in another SR
Sarbagili Shabat C, Scaldaferri F, Zittan E, Hirsch A, Mentella MC, Musca T, Cohen NA, Ron Y, Fliss Isakov N, Pfeffer J, Yaakov M, Fanali C, Turchini L, Masucci L, Quaranta G, Kolonimos N, Godneva A, Weinberger A, Kopylov U, Levine A, Maharshak N. Use of Faecal Transplantation with a Novel Diet for Mild to Moderate Active Ulcerative Colitis: The CRAFT UC Randomised Controlled Trial. J Crohns Colitis. 2022 Mar 14;16(3):369-378.	Both groups had FMT
Schierová D, Březina J, Mrázek J, Fliegerová KO, Kvasnová S, Bajer L, Drastich P. Gut Microbiome Changes in Patients with Active Left-Sided Ulcerative Colitis after Fecal Microbiome Transplantation and Topical 5-aminosalicylic Acid Therapy. Cells. 2020 Oct 13;9(10):2283.	No relevant outcomes
Singh P, Alm EJ, Kelley JM, Cheng V, Smith M, Kassam Z, Nee J, Iturrino J, Lembo A. Effect of antibiotic pretreatment on bacterial engraftment after Fecal Microbiota Transplant (FMT) in IBS-D. Gut Microbes. 2022 Jan-Dec;14(1):2020067.	FMT in both groups, intervention was abx
Singh, P.; Nee, J.; Iturrino-Moreda, J.; Wong, W. F.; Budree, S.; Kassam, Z.; Kelley, J.; Cheng, V.; Hirsch, W.; Lembo, A. Fmt with or without Antibiotic Pretreatment in Patients with Ibs-D: Results of a Double-Blind, Randomized, Placebo-Controlled Trial. Gastroenterology 2019;156(6 Supplement 1)():S-235, 2019	Wrong study design
Singh, R.; de Groot, P. F.; Geerlings, S. E.; Hodiamont, C. J.; Belzer, C.; Berge, I. J. M. T.; de Vos, W. M.; Bemelman, F. J.; Nieuwdorp, M. Fecal microbiota transplantation against intestinal colonization by extended spectrum beta-lactamase producing Enterobacteriaceae: a proof of principle study. BMC research notes 2018;11(1)():190, 2018	Wrong study design
Smith, B. J.; Piceno, Y.; Zydek, M.; Zhang, B.; Syriani, L. A.; Terdiman, J. P.; Kassam, Z.; Ma, A.; Lynch, S. V.; Pollard, K. S.; El-Nachef, N. Strain-resolved analysis in a randomized trial of antibiotic pretreatment and maintenance dose delivery mode with fecal microbiota transplant for ulcerative colitis. medRxiv. 2021;10():,	Pre-print
Smits LP, Kootte RS, Levin E, Prodan A, Fuentes S, Zoetendal EG, Wang Z, Levison BS, Cleophas MCP, Kemper EM, Dallinga-Thie GM, Groen AK, Joosten LAB, Netea MG, Stroes ESG, de Vos WM, Hazen SL, Nieuwdorp M. Effect of Vegan Fecal Microbiota Transplantation on Carnitine- and Choline-Derived Trimethylamine-N-Oxide Production and Vascular Inflammation in Patients With Metabolic Syndrome. J Am Heart Assoc. 2018 Mar 26;7(7):e008342.	No relevant outcomes

Sood A, Mahajan R, Singh A, Midha V, Mehta V, Narang V, Singh T, Singh Pannu A. Role of Faecal Microbiota Transplantation for Maintenance of Remission in Patients With Ulcerative Colitis: A Pilot Study. J Crohns Colitis. 2019 Sep 27;13(10):1311-1317.	Maintenance FMT
Tan XY, Xie YJ, Liu XL, Li XY, Jia B. A Systematic Review and Meta-Analysis of Randomized Controlled Trials of Fecal Microbiota Transplantation for the Treatment of Inflammatory Bowel Disease. Evid Based Complement Alternat Med. 2022 Jun 26;2022:8266793.	All RCTs already included
Tang LL, Feng WZ, Cheng JJ, Gong YN. Clinical remission of ulcerative colitis after different modes of faecal microbiota transplantation: a meta-analysis. Int J Colorectal Dis. 2020 Jun;35(6):1025-1034.	SR, studies included in Chehede except 2 which were maintenance
Tian H, Wang J, Feng R, Zhang R, Liu H, Qin C, Meng L, Chen Y, Fu Y, Liang D, Yuan X. Efficacy of faecal microbiota transplantation in patients with progressive supranuclear palsy-Richardson's syndrome: a phase 2, single centre, randomised clinical trial. EClinicalMedicine. 2023 Apr 1;58.	Wrong indication, no relevant outcomes
Trinh, B.; Zacharakis, A.; Cullis, J.; Laube, R.; Paramsothy, S.; Leong, R. Role of fecal microbiota transplantation in the management of immune checkpoint inhibitor-induced colitis: A systematic review. Journal of Gastroenterology and Hepatology 2021;36(SUPPL 3)():137, 2021	Wrong study design
Tun KM, Hong AS, Batra K, Naga Y, Ohning G. A systematic review of the efficacy and safety of fecal microbiota transplantation in the treatment of hepatic encephalopathy and Clostridioides difficile infection in patients with cirrhosis. Cureus. 2022 May 31;14(5).	Studies covered in another SR
Vrieze A, Van Nood E, Holleman F, Salojärvi J, Kootte RS, Bartelsman JF, Dallinga-Thie GM, Ackermans MT, Serlie MJ, Oozeer R, Derrien M, Druesne A, Van Hylckama Vlieg JE, Bloks VW, Groen AK, Heilig HG, Zoetendal EG, Stroes ES, de Vos WM, Hoekstra JB, Nieuwdorp M. Transfer of intestinal microbiota from lean donors increases insulin sensitivity in individuals with metabolic syndrome. Gastroenterology. 2012 Oct;143(4):913-6.e7.	Data in before-after format
Vuyyuru SK, Kedia S, Kalaivani M, Sahu P, Kante B, Kumar P, Ranjan MK, Makharia G, Ananthakrishnan A, Ahuja V. Efficacy and safety of fecal transplantation versus targeted therapies in ulcerative colitis: network meta-analysis. Future Microbiol. 2021 Oct;16:1215-1227.	SR, studies included in Chehede
Wang M, Xie X, Zhao S, Ma X, Wang Z, Zhang Y. Fecal microbiota transplantation for irritable bowel syndrome: a systematic review and meta-analysis of randomized controlled trials. Frontiers in Immunology. 2023 May 18;14:1136343.	Studies included in another SR
Wei Y, Gong J, Zhu W, Tian H, Ding C, Gu L, Li N, Li J. Pectin enhances the effect of fecal microbiota transplantation in ulcerative colitis by delaying the loss of diversity of gut flora. BMC Microbiol. 2016 Nov 3;16(1):255.	FMT in both groups
Wei ZJ, Dong HB, Ren YT, Jiang B. Efficacy and safety of fecal microbiota transplantation for the induction of remission in active ulcerative colitis: a systematic review and meta-analysis of randomized controlled trials. Annals of Translational Medicine. 2022 Jul;10(14).	Also included paediatric patients
Witjes JJ, Smits LP, Pekmez CT, Prodan A, Meijnikman AS, Troelstra MA, Bouter KEC, Herrema H, Levin E, Holleboom AG, Winkelmeijer M, Beuers UH, van Lienden K, Aron-Wisnewky J, Mannisto V, Bergman JJ, Runge JH, Nederveen AJ, Dragsted LO, Konstanti P, Zoetendal EG, de Vos W, Verheij J, Groen AK,	No relevant outcomes

Nieuwdorp M. Donor Fecal Microbiota Transplantation Alters Gut Microbiota and Metabolites in Obese Individuals With Steatohepatitis. Hepatol Commun. 2020 Oct 7;4(11):1578-1590.	
Xu D, Chen VL, Steiner CA, Berinstein JA, Eswaran S, Waljee AK, Higgins PDR, Owyang C. Efficacy of Fecal Microbiota Transplantation in Irritable Bowel Syndrome: A Systematic Review and Meta-Analysis. Am J Gastroenterol. 2019 Jul;114(7):1043-1050.	SR, included same papers as Wu
Yang Z, Bu C, Yuan W, Shen Z, Quan Y, Wu S, Zhu C, Wang X. Fecal Microbiota Transplant via Endoscopic Delivering Through Small Intestine and Colon: No Difference for Crohn's Disease. Dig Dis Sci. 2020 Jan;65(1):150-157.	Both groups had FMT
Ye, H.; Hu, S.; Chen, D.; Tang, L. Efficacy of Fecal Microbiota Transplantation for Treating Crohn's Disease: A Systematic Review and Meta-analysis of Single Rate. [Chinese] TT -: meta. Chinese Journal of Gastroenterology 2020;25(10)():594-600, 2020	Not in English
Yoon YK, Suh JW, Kang EJ, Kim JY. Efficacy and safety of fecal microbiota transplantation for decolonization of intestinal multidrug-resistant microorganism carriage: beyond Clostridioides difficile infection. Ann Med. 2019 Nov-Dec;51(7-8):379-389.	Review of case studies
Yu, E. W.; Gao, L.; Stastka, P.; Cheney, M. C.; Mahabamunuge, J.; Torres Soto, M.; Ford, C. B.; Bryant, J. A.; Henn, M. R.; Hohmann, E. L.Fecal microbiota transplantation for the improvement of metabolism in obesity: the FMT-TRIM double-blind placebo-controlled pilot trial PLoS medicine 2020	No relevant outcomes
Yuan, T.; Li, Z. Fecal microbiota transplantation as a treatment for gastrointestinal diseases: A systemic review and meta-analysis. Gazzetta Medica Italiana Archivio per le Scienze Mediche 2018;177(1-2)():26-41, 2018	All RCTs included in other SRs
Yuan TY, Rajesh R, Tan M. Oral faecal microbiota transplantation in ulcerative colitis. The Lancet Gastroenterology & Hepatology. 2022 Apr 1;7(4):286.	Wrong study design
Zaman S, Akingboye A, Mohamedahmed AY, Peterknecht E, Bhattacharya P, El-Asrag ME, Iqbal TH, Quraishi MN, Beggs AD. Faecal microbiota transplantation (FMT) in the treatment of chronic refractory pouchitis: A systematic review and meta-analysis.	Wrong study design
Zeng L, Deng Y, Yang K, Chen J, He Q, Chen H. Safety and efficacy of fecal microbiota transplantation for autoimmune diseases and autoinflammatory diseases: A systematic review and meta-analysis. Frontiers in Immunology. 2022 Sep 30;13:944387.	Also included paediatric patients
Zhang Z, Mocanu V, Cai C, Dang J, Slater L, Deehan EC, Walter J, Madsen KL. Impact of Fecal Microbiota Transplantation on Obesity and Metabolic Syndrome-A Systematic Review. Nutrients. 2019 Sep 25;11(10):2291	SR, no relevant outcomes
Zhang, Q. Jiang, and H.-B. Zhang, “Effect of fecal microbiota transplantation on gastrointestinal function and intestinal flora in patients with ulcerative colitis,” World Chinese Journal of Digestology, vol. 27, no. 1, pp. 68–72, 2019.	Not in English
Zhang, J.; Wang, X.; Wang, B.; Dang, X., Efficacy and Related Factors of Fecal Microbiota Transplantation on Ulcerative Colitis. [Chinese], Chinese Journal of Gastroenterology 2019;24(3)():153-159, 2019	Not in English
Zhao HL, Chen SZ, Xu HM, Zhou YL, He J, Huang HL, Xu J, Nie YQ. Efficacy and safety of fecal microbiota transplantation for treating patients with ulcerative colitis: A systematic review and meta-analysis. J Dig Dis. 2020 Oct;21(10):534-548.	SR, RCTs covered by Chahade

Zhao HJ, Zhang XJ, Zhang NN, Yan B, Xu KK, Peng LH, Pan F. Fecal microbiota transplantation for patients with irritable bowel syndrome: a meta-analysis of randomized controlled trials. Frontiers in Nutrition. 2022 May 27;9:890357.	Studies covered in another SR
Zhou HY, Guo B, Lufumpa E, Li XM, Chen LH, Meng X, Li BZ. Comparative of the Effectiveness and Safety of Biological Agents, Tofacitinib, and Fecal Microbiota Transplantation in Ulcerative Colitis: Systematic Review and Network Meta-Analysis. Immunol Invest. 2021 May;50(4):323-337.	SR, RCTs covered by Chahade
Zhou S, Cui Y, Zhang Y, Zhao T, Cong J. Fecal microbiota transplantation for induction of remission in Crohn's disease: A systematic review and meta-analysis. International Journal of Colorectal Disease. 2023 Mar 8;38(1):62.	Included designs other than RCT

Appendix 3 – Quality appraisal

a) QA checklists

Systematic reviews: ROBIS tool

http://www.bristol.ac.uk/media-library/sites/social-community-medicine/robis/robisguidancedocument.pdf

Randomised controlled and cross-over trials: Cochrane RoB tool (2.0)
https://sites.google.com/site/riskofbiastool/welcome/rob-2-0-tool

Non-randomised trials and cohort studies: Cochrane ROBINS-I
https://sites.google.com/site/riskofbiastool/welcome/home

Case control studies: CASP case control checklist
http://docs.wixstatic.com/ugd/dded87_63fb65dd4e0548e2bfd0a982295f839e.pdf

Cross-sectional studies: JBI checklist for cross sectional study
https://jbi.global/sites/default/files/2019-05/JBI_Critical_Appraisal-Checklist_for_Analytical_Cross_Sectional_Studies2017_0.pdf

Case series, intervention studies: Institute of Health Economics (IHE) checklist for case series
http://www.ihe.ca/publications/ihe-quality-appraisal-checklist-for-case-series-studies

ITS and uncontrolled before-after studies: Effective Practice and Organisation of Care (EPOC) RoB Tool (for interrupted time series study) http://epoc.cochrane.org/resources/epoc-resources-review-authors

b) QA results

Systematic reviews

Citation	Risk of bias in the review			
	A	B	C	overall
Fang, 2021[145]	*	*	?	?
Hong, 2022[146]	!	*	*	!
Wu, 2022[132]	!	*	*	!
Chehade, 2022[116]	?	*	*	?

*= low risk, != high risk, ?= unclear risk

Randomised Controlled trials

Study	Domain 1	Domain S1	Domain 2	Domain S2	Domain 3	Domain 4	Domain 5	Overall
Hvas, 2019[12]	*	*	§	*	*	§	*	§
Varga 2021[99]	§	*	§	*	*	§	§	§
Baunwall 2021[13]	*	*	*	*	*	*	*	*
Jiang 2018[108]	§	*	§	*	*	*	*	§
van Nood, 2013[2]	§	*	§	*	*	§	*	§
Cammarota 2015[14]	*	*	§	*	*	§	*	§
Kelly 2016[16]	*	*	*	*	*	*	*	*
Hota 2017[15]	*	*	§	*	*	§	*	§

Sokol, 2020[129]	*	*	§	*	*	§	§	§
Singh, 2021[133]	§	*	§	*	*	*	§	§
Huttner, 2019[159]	*	*	§	*	*	*	*	§
Herfarth, 2019[130]	*	*	*	*	*	*	*	*
Karjalainen, 2021[131]	*	*	*	*	*	*	*	*
Brezina, 2021[117]	*	*	§	*	*	§	*	§
Koopen, 2021[150]	*	*	*	*	*	*	!	!
Craven, 2020[151]	§	*	*	*	*	*	!	!
Mocanu, 2021[148]	*	*	§	*	*	*	!	!
Yu, 2020[152]	*	*	*	*	*	*	*	*
Tkach, 2022[118]	§	*	§	*	*	§	*	§
Tkach, 2022b[134]	§	*	*	*	*	§	*	§
Allegretti, 2020c[154]	*	*	*	*	*	§	§	§

*= low risk, != high risk, §= some concerns

Non-Randomised controlled trials and cohort studies

	Overall rating							
Study	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Overall rating**
Dawwas, 2022[65]	//	//	//	//	/	//	//	/
Osman 2022[110]	//	/	//	//	\	/	//	\

Ponte 2018[25]	//	//	/	//	\	//	//	\
Nivet, 2022[68]	//	//	//	/	//	/	//	/
Hirten 2019[28]	//	//	/	/	\	/	//	\
Staley 2021[96]	//	//	//	//	/	/	//	/
Reigadas 2018[107]	//	/	//	/	//	//	//	/
Popa, 2021[18]	\	//	//	//	\	//	//	\
Satokari, 2020[95]	//	//	//	//	//	//	//	//
Vaughn 2022[38]	//	//	//	//	/	//	//	/
Allegretti 2020b[100]	//	//	//	/	/	//	//	/
Bestfater, 2021[106]	/	//	//	//	/	//	//	/
Meighani 2020[49]	//	//	/	//	\	//	//	\
Niccum 2018[51]	/	//	//	/	//	//	/	/
Svensson, 2022[109]	\	//	//	//	//	/	//	\
Boicean, 2023[50]	//	//	/	//	\	/	//	\
Tabaa, 2018[36]	//	//	/	//	/	//	//	/

// = low risk of bias, / = moderate risk of bias, \ =serious risk of bias, \\ = Critical risk of bias

Case control

Citation	Q 1	Q 2	Worth proceeding	Q 3	Q 4	Q 5	Q6a	Q6b	Q7	Q 8	Q 9	Q 10	Q 11
Yoon, 2021[27]	●	●	●	●	●	⊕	no multivariable regression	⊕	risk factors: donor stool composition, recipient comorbidity, severity of CDI	small sample size - not precise	●	●	●
Urbonas, 2021[44]	●	●	●	●	●	⊕	no multivariable regression	▲	no risk factors identified	small sample size - not precise	●	●	●
Terveer, 2020[23]	●	●	●	●	●	⊕	no multivariable regression	▲	no risk factors identified	small sample size for non-respondents; not precise	●	●	●
Raghu Subramanian, 2020[37]	●	●	●	●	●	⊕	no multivariable regression	⊕	patients who are immunosuppressed more likely to fail FMT (early and late)	no inferential analysis - sample too small	●	●	●
Peri, 2019[21]	●	●	●	⊕	⊕	⊕	age, severity of CDI, no. of recurrences	●	Risk factor: higher age	not very precise: relatively small sample size	●	●	●
Alghamdi, 2019[19]	●	●	●	●	●	⊕	none – all NS in univariate analysis	⊕	no risk factors identified	not precise - only two cases with failure	●	●	●
Tariq, 2021[22]	●	●	●	●	⊕	●	abx, age, quality of bowel prep, immune status, other	●	risk factors: IBD, abx use and bowel prep	fairly precise, too small for some rare events	●	●	●
Vaughn 2022[38]	●	●	●	●	●	●	gender, age, CDI history, medical conditions	●	Risk factors: age and dialysis	fairly precise, too small for some rare events	●	●	●
Barberio, 2020[69]	⊕	●	●	●	●	⊕	no analysis	⊕	overall - FMT successful	n/a	●	●	●
Kachlikova, 2020[20]	●	●	●	●	●	⊕	age, sex, CCI score, time to first defecation	●	Risk factor: CCI	small sample - not very precise	●	●	●
Weingarden, 2022[39]	●	●	●	●	●	●	Procedures, patient characteristics	●	found some significant protective and risk factors	precise - sufficient sample size	●	●	●

Dogra, 2022[26]	●	●	●	●	●	●	Procedures, patient characteristics	▲	Risk factors: refractory CDI, immunosuppressed, inpatient, not colonoscopy, upper GI FMT	n/a	●	⊕	●

●=yes, ▲=no ⊕=can't tell

Cross-sectional

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
McCune 2020[29]	●	▲	●	●	●	●	●	●
Hirten 2019[28]	●	▲	■	●	●	●	●	●
Pringle 2019[40]	●	▲	■	■	●	●	●	●
Lynch 2019[52]	●	▲	●	●	▲	▲	●	●
Suchman 2022	▲	●	●	●	▲	▲	●	◆
Barberio, 2020[68]	◆	●	●	●	◆	◆	●	◆
Kim 2019[40]	■	●	●	●	●	●	●	●
Watts, 2022[23]	●	■	■	●	●	●	●	●

●=yes, ▲=no, ■=unclear, ◆= not applicable

Interrupted series and before-after studies

citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Vigvari 2019[95]	*	?	*	?	◆	*	*

♦ = not applicable, *= low risk, != high risk, ?= unclear risk

Case series

citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Vigvari 2019[95]	●	■	●	■	♦	●	●	●	♦	●	■	?	●	●	●	■	▲	●	●	●
Ianiro 2021[32]	●	●	▲	●	?	●	●	●	?	●	■	●	●	♦	●	♦	▲	▲	●	●
Navalkele, 2020[41]	●	▲	▲	●	●	●	●	●	♦	●	■	●	▲	●	●	■	▲	●	●	●
Vigvari 2019b[108]	●	●	▲	■	?	●	●	●	♦	●	■	?	●	●	?	●	▲	?	●	●
Cheng, 2019[46]	●	▲	●	▲	●	●	●	?	■	●	▲	●	▲	●	●	●	▲	●	●	■
Cheng 2021[47]	●	▲	●	■	●	●	●	■	♦	●	■	●	▲	●	●	■	▲	●	●	●
Cheminet, 2018[42]	●	■	▲	●	●	●	●	●	♦	●	■	●	■	●	●	●	▲	●	●	●
Tariq, 2020[30]	●	▲	●	■	●	●	●	●	♦	■	■	?	■	●	▲	?	▲	●	?	■
Stebel 2020	●	▲	▲	▲	■	●	●	?	●	●	■	●	■	●	●	?	▲	▲	●	●
Staley 2021[94]	●	●	▲	■	?	●	●	●	●	●	■	●	●	●	■	■	▲	▲	●	●
Rupawala, 2021[16]	●	●	▲	●	●	●	●	●	♦	●	▲	●	●	●	●	♦	▲	●	?	●
Reigadas 2020[96]	●	●	▲	●	●	●	●	●	♦	●	■	●	●	●	●	♦	▲	●	●	●
Mendelsohn 2022[44]	●	●	▲	■	●	●	●	●	♦	●	■	?	●	●	●	♦	▲	●	●	●

Ali 2021[46]	●	▲	▲	●	●	●	●	●	●	●	■	●	●	●	●	◆	▲	●	●	●
Allegretti 2020[32]	●	●	●	●	●	●	●	●	●	●	■	●	●	●	●	●	▲	●	●	●
Cold 2022[54]	●	▲	▲	■	●	●	●	●	◆	●	■	●	●	●	●	●	▲	●	●	●
Roshan, 2020[30]	●	▲	▲	■	🎗	●	●	●	●	●	■	🎗	●	■	●	●	▲	▲	●	●
Porcari, 2023[34]	●	▲	▲	▲	🎗	●	●	●	●	●	■	●	●	●	●	●	▲	●	●	●
van Lingen, 2023[35]	●	▲	●	■	●	●	●	●	🎗	●	■	●	●	●	●	●	▲	●	●	●

● =yes, ▲ =no, ■ =unclear, 🎗 =partial, ◆ = not applicable

Appendix 4 – Evidence tables

a) characteristics of included studies

Effectiveness and safety of FMT (section 4.1)

General population

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
van Nood 2013[2]	RCT	Netherlands	1	Patients >18y w/ CDI	10 weeks	FMT (ND tube)	Vancomycin	Cure, adverse events
Hvas, 2019[12]	RCT	Denmark	1	Patients >18y w/ CDI, not frail or septic	8 weeks	FMT (colonoscopy or NJ tube)	C1: vancomycin C2: fidaxomicin	Cure, adverse events
Baunwall 2021[13]	RCT	Denmark	1	Patients >18y w/ CDI	8 weeks	FMT (oral) to prevent recurrence	Placebo	Cure, adverse events
Cammarota 2015[14]	RCT	Italy	1	Patients >18y w/ CDI	10 weeks	FMT (colonoscopy)	Vancomycin	Cure, adverse events
Hota 2017[15]	RCT	Canada	1	Patients >18y w/ CDI	120 days	FMT (enema)	Vancomycin	Cure, adverse events
Kelly 2016[16]	RCT	USA	2	Patients >18y w/ CDI	8 weeks	FMT (colonoscopy, donor)	FMT (colonoscopy, autologous)	Cure, adverse events

Patients with severe or complicated CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes

Rupawala, 2021[17]	Case series	USA	1	Patients >18, w/ CDI severe or complicated	30 days	FMT (retention enema)	-	Cure, adverse events

Patients with severe vs mild/moderate CDI

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Popa, 2021[18]	Retrospective cohort	Romania	1	Patients >18y, undergoing FMT	12 months	Severe CDI	Non-severe CDI	Cure
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ severe CDI (successful)	Number of patients w/ severe CDI (failed)	Cure, adverse events
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Number w/ severe CDI (success)	Number w/ severe CDI (failure)	Cure
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Severe CDI	Non-severe CDI	Cure
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients w/ severe CDI (success)	Number of patients w/ severe CDI (fail)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of severe CDI (success)	Proportion of severe CDI (failed)	Cure
Watts, 2022[24]	Case control	USA	1	Patients >18y, w/ recurrent CDI	NS	Severe CDI	Non-severe CDI	Cure

Patients with refractory or fulminant vs recurrent CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Ponte 2018[25]	Retrospective cohort	Portugal	1	Patients with CDI, >18yo, immunocompetent undergoing FMT (colonoscopy or gastroscopy)	2 months	Refractory CDI	Recurrent CDI	Cure
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion w/ recurrent vs refractory CDI (success)	Proportion w/ recurrent vs refractory CDI (failure)	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Fulminant CDI	Recurrent CDI	Cure
Yoon, 2021[28]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Partially responded to abx for CDI	Did not respond to abx for CDI	Cure
Hirten 2019[29]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Refractory CDI	Recurrent CDI	Cure
McCune 2020[30]	Case control	UK	1	Patients >18y undergoing FMT for confirmed symptomatic CDI	90 days	Refractory CDI	Recurrent CDI	Cure

Patients with pseudomembranous vs no pseudomembranous CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ pseudomembranous (successful)	Number of patients w/ pseudomembranous (failed)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients w/ pseudomembranes (success)	Number of patients w/ pseudomembranes (fail)	Cure

Patients with first episode of CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Baunwall 2021[13]	RCT	Denmark	1	Patients >18y w/ CDI	8 weeks	FMT (oral) to prevent recurrence	Placebo	Cure, adverse events
Roshan, 2020[30]	Case series	Australia	1	Patients >18y with 1st CDI	6 months	FMT (colonoscopy + enema)	-	Cure

Patients with Inflammatory Bowel Disease (IBD)

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes

Tariq, 2020[31]	Case series	USA	3	Patients >18, w/ CDI + IBD	Up to 51 months	FMT (via colonoscopy into the caecum)	none	Cure, adverse events
Allegretti 2020[32]	Case series	USA	4	Patients >18, w/ CDI + IBD	8 weeks	FMT (via colonoscopy)	none	Cure
Ianiro 2021[33]	Case series	Italy	1	rCDI + confirmed IBD (UC/CD), adults	8 weeks	FMT (colonoscopy)	none	Cure, adverse events

Effectiveness in patients with IBD and CDI

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Tariq, 2020[31]	Case series	USA	3	Patients >18, w/ CDI + IBD	Up to 51 months	FMT (colonoscopy into the caecum)	none	Cure, adverse events
Allegretti, 2020[32]	Case series	USA	4	Patients >18, w/ CDI + IBD	8 weeks	FMT (colonoscopy)	none	Cure
Ianiro 2021[33]	Case series	Italy	1	rCDI + confirmed IBD (UC/CD), adults	8 weeks	FMT (colonoscopy)	none	Cure, adverse events
Porcari, 2023[34]	Case series	Italy	1	rCDI + confirmed UC, >16years	8 weeks	FMT (colonoscopy)	none	Cure, adverse events
van Lingen, 2023[35]	Case series	International (France, Denmark, Italy, Netherlands, Germany)	5	Patients >18, w/ CDI + IBD	8 weeks	FMT (different routes)	none	Cure

Patients with IBD and CDI vs no IBD

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Hirten 2019[28]	Retrospective cohort	USA	1	Patients >18y undergoing FMT for recurrent or severe CDI	6 months	With IBD	No IBD	Cure, adverse events
Tabaa, 2018[36]	Retrospective cohort	USA	1	Patients>18y w/ CDI undergoing FMT	Median 25 month	IBD	No IBD	Cure, adverse events
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ IBD (successful)	Number of patients w/ IBD (failed)	Cure, adverse events
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion w/IBD (success)	Proportion w/ IBD (failure)	Cure
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Number of patients w/ IBD (success)	Number of patients w/ IBD (fail)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients w/ IBD (success)	Number of patients w/ IBD (fail)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients w/ IBD (success)	Proportion of patients w/ IBD (failed)	Cure
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ IBD (success)	Proportion w/ IBD (failed)	Cure

Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/ IBD disease (success)	Proportion w/ IBD disease (fail)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients w/ IBD (1 FMT)	Proportion of patients w/ IBD (>1 FMT needed)	Cure
Kim 2019[41]	Cross-sectional	USA	1	Patients w/ recurrent CDI undergoing FMT	8 weeks	IBD	Not IBD	Cure

Effectiveness in immunosuppressed or immunocompromised patients

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Navalkele, 2020[42]	Case series	USA	1	Patients >18y w/ CDI immunocompromised	12 weeks	FMT (retention enema)	none	Cure, adverse events
Cheminet, 2018[43]	Case series	France	1	Patients, >18y, w/ CDI immunocompromised	Up to 24 months	FMT (oral, frozen)	-	Cure, adverse events

Immunosuppressed or immunocompromised patients vs not immunocompromised/suppressed

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of immunocompromised patients (successful)	Number of immunocompromised patients (failed)	Cure, adverse events
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Immunosuppression	No immunosuppression	Cure

Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of immunocompromised patients (success)	Number of immunocompromised patients (fail)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of immunocompromised patients (success)	Proportion of immunocompromised disease (failed)	Cure
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion immunocompromised (success)	Proportion immunocompromised (failure)	Cure
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Number of immunocompromised patients (success)	Number of immunocompromised patients (fail)	Cure, adverse events
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion of immunocompromised patients (success)	Proportion of immunocompromised patients (failed)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion immunocompromised (success)	Proportion immunocompromised (fail)	Cure
Urbonas, 2021[44]	Case control	Lithuania	1	Patients >18y, w/ CDI	36 months	Proportion on immunosuppressants (success)	Proportion on immunosuppressants (failed)	Cure
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	On immunosuppression	Not on immunosuppression	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of immunosuppressed patients (1 FMT)	Proportion of immunosuppressed patients (>1 FMT needed)	Cure

Kim 2019[41]	Cross-sectional	USA	1	Patients w/ recurrent CDI undergoing FMT	8 weeks	On immunosuppression	Not on immunosuppression	Cure

Effectiveness in cancer patients

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Mendelsohn 2022[45]	Case series	USA	1	Patients >18y w/ CDI + cancer	6 months	FMT (colonoscopy or upper endoscopy)	none	Cure, adverse events
Ali, 2021[46]	Case series	USA	1	Patients >18y w/ CDI + cancer	1 year	FMT (colonoscopy)	none	Cure, adverse events

Cancer patients vs no cancer

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ history of cancer (successful)	Number of patients w/ history of cancer (failed)	Cure, adverse events
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Higher ESOG status	Lower ESOG status	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion w/ cancer (1 FMT)	Proportion w/ cancer (>1 FMT needed)	Cure

Effectiveness in post-transplant patients

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Cheng, 2019[47]	Case series	USA, Canada	10	Patients >18y, w/CDI Post-solid transplant	3 months	FMT (different types)	-	Cure, adverse events

Post-transplant vs no transplant patients

No studies

Effectiveness in patients with liver disease

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Cheng 2021[48]	Case series	USA, Canada, Italy	8	Patients >18, w/ CDI + liver cirrhosis	12 weeks	FMT (different types)	-	Cure, adverse events

Patients with liver disease vs no liver disease

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Meighani 2020[49]	Retrospective cohort	UK	1	Patients >18 undergoing FMT for recurrent or refractory CDI	1 year	Patients with chronic liver disease	No liver disease	Cure

Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ decompensated liver disease (success)	Proportion w/ decompensated liver disease (failed)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Cirrhosis	No cirrhosis	Cure

Effectiveness in patients with kidney disease

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ ESRD (successful)	Number of patients w/ ESRD (failed)	Cure, adverse events
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients w/ severe kidney disease (success)	Proportion of patients w/ severe kidney disease (failed)	Cure
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion on dialysis (success)	Proportion on dialysis (failed)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of CKD patients (1 FMT)	Proportion of CKD patients (>1 FMT needed)	Cure

Patients with kidney disease vs no kidney disease

No studies

Effectiveness in patients with diabetes mellitus

No studies

Patients with diabetes mellitus vs no diabetes

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ DM (successful)	Number of patients w/ DM (failed)	Cure, adverse events
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/ DM (success)	Proportion w/ DM (fail)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients w/ DM (1 FMT)	Proportion of patients w/ DM (>1 FMT needed)	Cure

Effectiveness in patients with cardiovascular disease

No studies

Patients with cardiovascular disease vs no cardiovascular disease

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/ CVD (success)	Proportion w/ CVD (fail)	Cure

Effectiveness in patients with urinary infections

No studies

Patients with urinary tract infections vs no urinary infections

Author, Year	Study Design	Country	Number of sites	Population	Length of	Exposure or intervention	Control	Outcomes

					follow-up			
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients w/ recurrent UTI (success)	Proportion of patients w/ recurrent UTI (failed)	Cure

Effectiveness in patients with COVID-19 infection

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Boicean, 2023[50]	Retrospective cohort	Romania	1	Patients >18y, 1st CDI + COVID-19	8 weeks	FMT + abx	Abx only	Cure, improvement, adverse events

Patients with COVID-19 infection vs no infection

No studies

Effectiveness in patients with other conditions

No studies

Patients with other conditions vs no other conditions

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Diverticular disease								

Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients w/ diverticulitis (successful)	Number of patients w/ diverticulitis (failed)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients w/ diverticulosis (success)	Number of patients w/ diverticulosis (fail)	Cure
Gastrointestinal disease								
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/GI disease (success)	Proportion w/GI disease (fail)	Cure
Cognitive impairment								
Vaughn, 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ cognitive impairment (success)	Proportion w/ cognitive impairment (failed)	Cure
Neuro-muscular and neurological impairment								
Vaughn, 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ neuro-muscular impairment (success)	Proportion w/ neuro-muscular impairment (failed)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/ neurological disease (success)	Proportion w/ neurological disease (fail)	Cure
Mood disorders								
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion w/ mood disorders (success)	Proportion w/ mood disorders (fail)	Cure

Effectiveness in patients with higher Charlson comorbidity index or multiple comorbidities

No studies

Charlson comorbidity index and presence of multiple comorbidities vs no comorbidities

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Charlson comorbidity index								

Niccum 2018[51]	Retrospective cohort	USA	1	Patients >18 undergoing FMT for recurrent CDI	90 days	Higher CCI score	Lower CCI score	Cure
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median CCI (success)	Median CCI (failure)	Cure
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Number of patients w/ CCI>5 (success)	Number of patients w/ CCI>5 (fail)	Cure, adverse events
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Charlson comorbidity 3 or more	Charlson comorbidity <3	Cure
Comorbidities								
Urbonas, 2021[44]	Case control	Lithuania	1	Patients >18y, w/ CDI	36 months	Proportion w/ comorbidities (success)	Proportion w/ comorbidities (failed)	Cure
Lynch 2019[52]	Cross-sectional	USA	1	Patients who underwent FMT for CDI	3 months	0-1 comorbidities	>1 comorbidity	Cure

Additional data from excluded studies

Author
Quality of life
Hammeken, 2022[53]
Mortality
Cold 2022[54]
Mortality (severe, refractory or fulminant CDI)
Hocquart, 2018[55]
Cheng, 2020[56]
Tixier, 2019[57]
Long-term effectiveness
Saha 2021b[58]

Saha, 2021[59]
Perler, 2020[60]
Shin, 2019[61]
Terveer, 2020[23]
Lee, 2019[62]
Incidence of asymptomatic carriage
Allegretti, 2018[63]
Onset of new diseases or worsening of old conditions
Cold 2022[54]
Saha, 2021[59]
Perler, 2020[60]
Terveer, 2020[23]
Lee, 2019[62]
Dawwas, 2022[64]
Tabaa, 2018[36]
Ooijevaar, 2021[65]
Resolution or improvement of other chronic conditions
Cold 2022[54]
Perler, 2020[60]
Lee, 2019[62]

Recipient factors (section 4.2)

Demographic factors

Age

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Nivet, 2022[68]	Retrospective cohort	France	1	Patients w/ recurrent CDI undergoing FMT	6 months	Very old patients: 80 and older	Adults: 18-79yo	Cure, adverse events

Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Median age (successful)	Median age (failed)	Cure, adverse events
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median age (success)	Median age (failure)	Cure
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Higher age	Lower age	Cure
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Median age (success)	Median age (fail)	Recurrence
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Mean age (success)	Mean age (failed)	Remission
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Median age (success)	Median age (failure)	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	65 or older	<65	Remission
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Mean age (early fail)	Mean age (late fail or cure)	Cure, adverse events
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion of patients >65 (success)	Proportion of patients >65 (failed)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Median age (success)	Median age (fail)	Cure
Urbonas, 2021[44]	Case control	Lithuania	1	Patients >18y, w/ CDI	36 months	Mean age (success)	Mean age (failed)	Remission
Barberio, 2020[69]	Case control	Italy	1	Patients with recurrent or refractory CDI undergoing FMT	24 months	Median age (successful)	Median age (failed)	Cure, adverse events

Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Mean age (success)	Mean age (fail)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of older patients (1 FMT)	Proportion of older patients (>1 FMT needed)	Remission

Sex

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of males (successful)	Number of males (failed)	Cure, adverse events
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Number of males (success)	Number of males (failure)	Remission
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Female	Male	Failure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of males (success)	Proportion of males (failed)	Remission
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion of males (success)	Proportion of males (failure)	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Male	Female	Remission
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Number of males (success)	Number of males (fail)	Cure, adverse events
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion of male patients (success)	Proportion of male patients (failed)	Cure

Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion of males (success)	Proportion of males (fail)	Cure
Urbonas, 2021[44]	Case control	Lithuania	1	Patients >18y, w/ CDI	36 months	Proportion of males (success)	Proportion of males (failed)	Remission
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Females	Males	Recurrence
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of males (1 FMT)	Proportion of males (>1 FMT needed)	Remission

Body mass index

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Mean BMI (successful)	Mean BMI (failed)	Cure, adverse events
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Median BMI (success)	Median BMI (fail)	Cure

Factors associated with CDI

Number of CDI episodes before FMT

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**

Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Mean no. of CDI episodes before FMT (successful)	Mean no. of CDI episodes before FMT (failed)	Cure, adverse events
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Number w/ 3 or more recurrences (success)	Number w/ 3 or more recurrences (failure)	Cure
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Higher number of CDI recurrences	Lower number of CDI recurrences	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Mean no. of relapses (success)	Mean no. of relapses (failed)	Cure
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ 2 or more CDI recurrences in last year (success)	Proportion w/ 2 or more CDI recurrences in last year (failed)	Cure
Urbonas, 2021[44]	Case control	Lithuania	1	Patients >18y, w/ CDI	36 months	Mean no. of CDIs before FMT (success)	Mean no. of CDIs before FMT (failed)	Cure
Barberio, 2020[69]	Case control	Italy	1	Patients with recurrent or refractory CDI undergoing FMT	24 months	Median no. of CDI episodes before FMT (successful)	Median no. of CDI episodes before FMT (failed)	Cure, adverse events
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Mean number of CDI episodes (success)	Mean number of CDI episodes (fail)	Cure

Number of days from first CDI to FMT

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**

Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Median no. of days from CDI diagnosis to FMT (success)	Median no. of days from CDI diagnosis to FMT (failed)	Cure

Hospitalisation due to CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients hospitalised due to CDI before FMT (successful)	Number of patients hospitalised due to CDI before FMT (failed)	Cure, adverse events
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ prior CDI hospitalisation (success)	Proportion w/ prior CDI hospitalisation (failed)	Cure

Antibiotics used for treatment of CDI before FMT

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Number of antibiotic courses for CDI before FMT								
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Median no. of CDI abx courses before FMT (success)	Median no. of CDI abx courses before FMT (fail)	Cure
Vancomycin use								
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients treated w/ vancomycin before FMT (successful)	Number of patients treated w/ vancomycin before FMT (failed)	Cure, adverse events

Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on vancomycin before FMT (success)	Number of patients vancomycin before FMT (fail)	Cure
Barberio, 2020[69]	Case control	Italy	1	Patients with recurrent or refractory CDI undergoing FMT	24 months	Proportion on vancomycin (success)	Proportion on vancomycin (failure)	Cure, adverse events
Metronidazole use								
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients treated w/ metronidazole before FMT (successful)	Number of patients treated w/ metronidazole before FMT (failed)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on metronidazole before FMT (success)	Number of patients metronidazole before FMT (fail)	Cure
Fidaxomicin use								
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on fidaxomicin before FMT (success)	Number of patients on fidaxomicin before FMT (fail)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients w/ fidaxomicin (1 FMT)	Proportion of patients w/ fidaxomicin (>1 FMT needed)	Cure

C. difficile strain

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**

Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	CDI ribotype 027	CDI ribotype not 027	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients w/ hypervirulent clade (success)	Proportion of patients w/ hypervirulent clade (failed)	Cure
Kim 2019[41]	Cross-sectional	USA	1	Patients w/ recurrent CDI undergoing FMT	8 weeks	Hypervirulent strain	Not hypervirulent strain	Cure

Healthcare-acquired CDI

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Number w/ HCAI-CDI (success)	Number w/ HCAI-CDI (failure)	Cure

Medications

On Proton Pump Inhibitors and other anti-secretory medications

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients on PPI (successful)	Number of patients on PPI (failed)	Cure, adverse events
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients on H2 blockers (successful)	Number of patients on H2 blockers (failed)	Cure, adverse events

Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Number on PPI (success)	Number on PPI (failure)	Cure
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on anti-secretory therapy before FMT (success)	Number of patients on anti-secretory therapy before FMT (fail)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients on PPI (success)	Proportion of patients on PPI (failed)	Cure
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion on PPI 90d before CDI (success)	Proportion on PPI 90d before CDI (failure)	Cure
Raghu Subramanian, 2020[37]	Case control	USA	1	Patients >18y, w/ recurrent CDI undergoing FMT	1 month + based on symptoms	Number of patients on PPI (success)	Number of patients on PPI (fail)	Cure, adverse events
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion on acid suppression (success)	Proportion on acid suppression (failed)	Cure
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	On PPI	Not on PPI	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients using PPI (1 FMT)	Proportion of patients using PPI (>1 FMT needed)	Cure
Kim 2019[41]	Cross-sectional	USA	1	Patients w/ recurrent CDI undergoing FMT	8 weeks	On PPI	Not on PPI	Cure

Corticosteroids

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of**	**Exposure or intervention**	**Control**	**Outcomes**

					follow-up			
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients using steroids (1 FMT)	Proportion of patients using steroids (>1 FMT needed)	Cure

Lactulose

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients using lactulose (1 FMT)	Proportion of patients using lactulose (>1 FMT needed)	Cure

Probiotic use

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients using probiotics before FMT (successful)	Number of patients using probiotics before FMT (failed)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on probiotics before FMT (success)	Number of patients on probiotics before FMT (fail)	Cure

Non-CDI antibiotic use

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients on non-CDI abx between CDIs (success)	Proportion of patients non-CDI abx between CDIs (failed)	Cure
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion on abx before CDI (success)	Proportion on abx before CDI (failure)	Cure
Pringle 2019[40]	Cross-sectional	USA	NR	Patients 7-99y, w/ CDI undergoing FMT (oral)	8 weeks	Proportion of patients using rifaximin (1 FMT)	Proportion of patients using rifaximin (>1 FMT needed)	Cure

Narcotics

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion on narcotics (success)	Proportion on narcotics disorders (fail)	Cure

Hospitalisation status

Hospitalised at or before FMT

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes

Hospitalised at or before FMT								
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients hospitalised at FMT (success)	Number of patients hospitalised at FMT (fail)	Cure
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion inpatient at FMT (success)	Proportion inpatient at FMT (failure)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Proportion inpatient procedure (success)	Proportion inpatient procedure (fail)	Cure
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Hospitalised 90d before FMT	Not hospitalised 90d before FMT	Cure
Hospitalised before CDI								
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion hospitalised 90d before CDI (success)	Proportion hospitalised 90d before CDI (failure)	Cure

Blood biomarkers

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Albumin								
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median albumin (success)	Median albumin (failure)	Cure

Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Mean albumin (success)	Mean albumin (fail)	Cure
WBC/leukocytes								
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median leukocytes (success)	Median leukocytes (failure)	Cure
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Mean WBC (success)	Mean WBC (fail)	Cure
Haemoglobin								
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD >18y undergoing FMT for recurrent or severe CDI	6 months	Mean haemoglobin (success)	Mean haemoglobin (fail)	Cure
C-Reactive Protein								
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median CRP (success)	Median CRP (failure)	Cure
Zinc deficiency								
Niccum 2018[51]	Retrospective cohort	USA	1	Patients >18 undergoing FMT for recurrent CDI	90 days	Zinc deficiency	No zinc deficiency	Cure
Niccum 2018[51]	Retrospective cohort	USA	1	Patients >18 undergoing FMT for recurrent CDI	90 days	Zinc supplements	No zinc supplements	Cure

Other risk factors

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
White race								
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion of white race patients (success)	Proportion of white race patients (failed)	Cure
High risk population								
Kim 2019[41]	Cross-sectional	USA	1	Patients w/ recurrent CDI undergoing FMT	8 weeks	High risk population	Not High risk population	Cure
Microbiome composition in recipient's stool								
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Microbiome composition in stool (success)	Microbiome composition in stool (failed)	Cure
Previous FMT in the last 12 months								
Vaughn 2022[38]	Case control	USA	6	Patients undergoing FMT	2 months	Proportion w/ recurrences after FMT in last year (success)	Proportion w/ 2 recurrences after FMT in last year (failed)	Cure
Number of risk factors								
Barberio, 2020[69]	Case control	Italy	1	Patients with recurrent or refractory CDI undergoing FMT	24 months	Median no. of risk factors for failure at FMT (successful)	Median no. of risk factors for failure at FMT (failed)	Cure, adverse events

Donor factors (section 4.3)

Related vs not related donor

Author, Year	Study Design	Country	Number of sites	Population	Length of	Exposure or intervention	Control	Outcomes

					follow-up			
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT CDI	1 year	Related donor	Non-related donor	Cure
Watts, 2022[24]	Case control	USA	1	Patients >18y, w/ recurrent CDI	NS	Related donor	Non-related donor	Cure
Lynch 2019[52]	Cross-sectional	USA	1	Patients undergoing FMT for CDI	3 months	Related to donor	Not related to donor	Cure

Age of the donor

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Mean donor age (success)	Mean donor age (success)	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, excluding immunocompromised and cirrhosis patients	90 days	Age of the donor	Age of the donor	Cure

Sex of the donor

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**

Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of donor females (success)	Proportion of donor females (success)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of donor/ patient sex mismatch (success)	Proportion donor/ patient sex mismatch (success)	Cure

Amount of stool produced

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, excluding immunocompromised and cirrhosis patients	90 days	Age of the donor	Age of the donor	Cure

Microbiome composition of the donor stool

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, excluding immunocompromised and cirrhosis patients	90 days	Age of the donor	Age of the donor	Cure

Preparation factors (section 4.4)

Fresh vs frozen stool

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Frozen	Fresh	Cure, adverse events
McCune 2020[29]	Case control	UK	1	Patients >18y undergoing FMT for confirmed symptomatic CDI	90 days	Frozen	Fresh	Cure, adverse events
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Frozen	Fresh	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, excluding immunocompromised and cirrhosis patients	90days	Frozen	Fresh	Cure
Barberio, 2020[69]	Cross-sectional	Italy	1	Patients >18 w/ recurrent or refractory CDI undergoing FMT	24 months	Frozen	Fresh	Cure
Hirten 2019[28]	Cross-sectional (nested)	USA	1	Patients w/ and w/o IBD, >18y undergoing FMT for recurrent or severe CDI	6 months	Frozen	Fresh	Cure

Stool frozen at -20°C vs -80°C

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Satokari, 2020[95]	Retrospective cohort	Finland	1	Patients w/ recurrent or refractory CDI undergoing FMT	3 months	Frozen at -80C	Frozen at -20C	Cure

Lyophilised stool

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Staley 2021[96]	Case series	USA	1	Patients >18y, w/ recurrent CDI	NR	FMT (lyophilised capsule)	-	Cure
Vigvari 2019[97]	Case series	Hungary	1	Patients >18y, w/ CDI	6 weeks	Lyophilised	-	Cure
Reigadas 2020[98]	Case series	Spain	1	Patients >18y, w/ recurrent CDI	2 months	FMT (lyophilised)	-	Resolution, adverse events

Type of capsule

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Varga 2021[99]	RCT	Hungary	1	Patients >18y, w/ recurrent CDI	NR	Supernatant capsule	Sediment capsule	Cure

Processing time

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Allegretti 2020b[100]	Prospective cohort	USA	257	Patients w/ recurrent CDI undergoing FMT	8 weeks	Processing time (success)	Processing time (fail)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Duration of processing of the faeces (success)	Duration of processing of the faeces (fail)	Cure

Storage time

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Allegretti 2020b[100]	Prospective cohort	USA	257	Patients w/ recurrent CDI undergoing FMT	8 weeks	Storage time (success)	Storage time (fail)	Cure
Satokari, 2020[95]	Retrospective cohort	Finland	1	Patients w/ recurrent or refractory CDI undergoing FMT	3 months	Stored for over 2 months (frozen)	Stored for under 2 months (frozen)	Cure
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Duration of storing the faeces (success)	Duration of storing the faeces (fail)	Cure

Additional data from excluded studies:

Citation
Anaerobic vs aerobic conditions

Papanicolas, 2019[94]
Shimizu, 2021[101]
Burz, 2019[102]
fresh vs frozen conditions
Papanicolas, 2019[94]
Dorsaz, 2020[103]
Burz, 2019[102]
Emulsion processes
Quaranta, 2020[104]

Administration factors (section 4.5)

Route of delivery

Colonoscopy vs other methods

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure	Control	Outcomes
Ponte 2018[25]	Retrospective cohort	Portugal	1	Patients with recurrent or refractory CDI, >18yo, immunocompetent	2 months	FMT (upper, via gastroscopy)	FMT (lower GI via colonoscopy)	Remission, adverse events
Vaughn 2022[38]	Retrospective cohort	USA	6	Patients undergoing FMT	2 months	Oral capsules	Colonoscopy	Cure
Bestfater, 2021[106]	Retrospective cohort	Germany	35	Patients undergoing FMT for recurrent CDI	90 days	I1: FMT (upper) I2: FMT (oral)	FMT (colonoscopy)	Cure, adverse events

Reigadas 2018[107]	Retrospective cohort	Spain	1	Patients >18y, w/ recurrent CDI	2 months	I1: FMT (oral) I2: FMT (NJ tube)	FMT (colonoscopy)	Resolution, adverse events
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients with colonoscopy vs EGD (success)	Number of patients with colonoscopy vs EGD (success)	Cure, adverse events
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	I1: FMT (oral) I2: FMT (upper GI to duodenum or jejunum)	FMT (colonoscopy)	Resolution
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion of patients receiving colonoscopy (success)	Proportion of patients receiving colonoscopy (fail)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT	>60d	Proportion given colonoscopy (success)	Proportion given colonoscopy (fail)	Cure
Staley 2021[96]	Cross-sectional	USA	1	Patients >18y, w/ recurrent CDI	NR	FMT (lyophilised colonoscopy)	FMT (lyophilised capsule)	Remission

Enema vs other methods

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure**	**Control**	**Outcomes**
Jiang 2018[108]	RCT	USA	1	Patients >18y, FMT for recurrent CDI	60 days	FMT (oral lyophilised)	FMT (enema, frozen)	Cure, adverse events
Svensson, 2022[109]	Retrospective cohort	Denmark	1	Patients >18y, w/ recurrent CDI undergoing FMT	12 months	FMT (capsules)	FMT (retention enema)	Remission

Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion of patients receiving enema (success)	Proportion of patients receiving enema (fail)	Cure
Navalkele, 2020[42]	Case series	USA	1	Immunocompetent or immunocompromised, w/ CDI not responding to standard treatment	12 weeks	FMT (retention enema)	none	Remission, adverse events

Lower GI (unspecified) vs other methods

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure**	**Control**	**Outcomes**
Osman 2022[110]	Prospective cohort	International (NR)	681	Patients with confirmed CDI	8 weeks	FMT (upper GI via upper endoscopy or nasoenteric)	FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)	Remission
Osman 2022[110]	Prospective cohort	International (NR)	681	Patients with confirmed CDI	8 weeks	FMT (oral capsules)	FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)	Remission
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	FMT infusion via lower GI	FMT infusion via upper GI	Remission
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Antegrade delivery	Retrograde delivery	Remission

Upper GI vs other methods

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure**	**Control**	**Outcomes**

Osman 2022[110]	Prospective cohort	International (NR)	681	Patients with confirmed CDI	8 weeks	FMT (upper GI via upper endoscopy or nasoenteric)	FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)	Remission
Ponte 2018[25]	Retrospective cohort	Portugal	1	Patients with recurrent or refractory CDI, >18yo, immunocompetent	2 months	FMT (upper, via gastroscopy)	FMT (lower GI via colonoscopy)	Remission, adverse events
Bestfater, 2021[106]	Retrospective cohort	Germany	35	Patients undergoing FMT for recurrent CDI	90 days	FMT (upper)	FMT (colonoscopy) FMT (oral)	Cure, adverse events
Reigadas 2018[107]	Retrospective cohort	Spain	1	Patients >18y, w/ recurrent CDI	2 months	I2: FMT (NJ tube)	FMT (colonoscopy) I1: FMT (oral)	Resolution, adverse events
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients with colonoscopy vs EGD (success)	Number of patients with colonoscopy vs EGD (success)	Cure, adverse events
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	I2: FMT (upper GI to duodenum or jejunum)	FMT (colonoscopy) I1: FMT (oral)	Resolution
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	FMT infusion via lower GI	FMT infusion via upper GI	Remission
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion of patients receiving upper FMT (success)	Proportion of patients receiving upper FMT (fail)	Cure
Yoon, 2021[27]	Case control	Korea	1	Patients >18y, w/ CDI, no cirrhosis or immunocompromised	90 days	Antegrade delivery	Retrograde delivery	Remission
Vigvari 2019[97]	Uncontrolled before-after	Hungary	1	Patients, >18y undergoing FMT for CDI	6 weeks	FMT (upper via NG)	FMT (upper via ND)	Remission, symptom improvement

Oral capsules vs other methods

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure	Control	Outcomes
Jiang 2018[108]	RCT	USA	1	Patients >18y, FMT for recurrent CDI	60 days	FMT (oral lyophilised)	FMT (enema, frozen)	Cure, adverse events
Osman 2022[110]	Prospective cohort	International (NR)	681	Patients with confirmed CDI	8 weeks	FMT (oral capsules)	FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)	Remission
Vaughn 2022[38]	Retrospective cohort	USA	6	Patients undergoing FMT	2 months	Oral capsules	Colonoscopy	Cure
Bestfater, 2021[106]	Retrospective cohort	Germany	35	Patients undergoing FMT for recurrent CDI	90 days	FMT (oral)	FMT (colonoscopy) FMT (upper)	Cure, adverse events
Reigadas 2018[107]	Retrospective cohort	Spain	1	Patients >18y, w/ recurrent CDI	2 months	I1: FMT (oral)	FMT (colonoscopy) I2: FMT (NJ tube)	Resolution, adverse events
Svensson, 2022[109]	Retrospective cohort	Denmark	1	Patients >18y, w/ recurrent CDI undergoing FMT	12 months	FMT (capsules)	FMT (retention enema)	Remission
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	I1: FMT (oral)	FMT (colonoscopy) I2: FMT (upper GI to duodenum or jejunum)	Resolution
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Proportion of patients receiving oral FMT (success)	Proportion of patients receiving oral FMT (fail)	Cure
Staley 2021[96]	Cross-sectional	USA	1	Patients >18y, w/ recurrent CDI	NR	FMT (lyophilised colonoscopy)	FMT (lyophilised capsule)	Remission

Cheminet, 2018[43]	Case series	France	1	Patients, >18y undergoing FMT for recurrent CDI	Up to 24 months	FMT (oral, frozen)	-	Adverse events
Cold 2022[54]	Case series	Denmark	1	Patients >18y undergoing FMT for recurrent, refractory or fulminant CDI	8 weeks	FMT (oral)	-	Adverse events

Bidirectional vs other methods

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure**	**Control**	**Outcomes**
Bestfater, 2021[106]	Retrospective cohort	Germany	35	Patients undergoing FMT for recurrent CDI	90 days	FMT (bidirectional)	FMT (colonoscopy) FMT (oral) FMT (upper)	Cure, adverse events

Other factors

Location of delivery

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure**	**Control**	**Outcomes**
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Proportion delivered to terminal ileum (success)	Proportion delivered to terminal ileum (fail)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Most distal delivery (success)	Most distal delivery (fail)	Cure

Volume of FMT infused

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure	Control	Outcomes
Dogra, 2022[26]	Case control	USA	2	Patients undergoing FMT for CDI	Median 2.5mths	Mean volume of FMT infused (success)	Mean volume of FMT infused (fail)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Mean volume delivered (success)	Mean volume delivered (fail)	Cure

PPI before FMT

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	PPI @ FMT	No PPI @ FMT	Cure

Antimotility agents used

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Antimotility agents	No antimotility agents	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Proportion given loperamide (success)	Proportion given loperamide (fail)	Cure

Bowel lavage/prep used

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Peri, 2019[21]	Case control	Germany	35	Patients >18y, undergoing FMT for CDI	10-90 days	Bowel lavage given	No bowel lavage given	Cure
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Quality of bowel prep (success)	Quality of bowel prep (success)	Cure
Weingarden, 2022[39]	Case control	USA	2	Patients undergoing FMT for CDI	>60d	Proportion bowel prep (success)	Proportion bowel prep (fail)	Cure

Post-FMT factors (section 4.6)

Use of non-CDI antibiotics

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Alghamdi, 2019[19]	Case control	Saudi Arabia	1	Patients >18 w/ CDI	8 weeks	Number of patients on non-CDI abx (<12weeks from FMT) (successful)	Number of patients on non-CDI abx (<12weeks from FMT) (failed)	Cure, adverse events
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT	1 year	Number of patients on non-CDI abx after FMT (success)	Number of patients on non-CDI abx after FMT (fail)	Cure

				for recurrent or refractory CDI				
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients on non-CDI abx between CDIs (success)	Proportion of patients non-CDI abx between CDIs (failed)	Cure

Post-FMT infection

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients w/ post-FMT infection (not CDI) (success)	Proportion of patients w/ post-FMT infection (not CDI) (failed)	Cure

On anti-secretory therapy after FMT vs no therapy

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Tariq, 2021[22]	Case control	USA	1	Patients undergoing FMT for recurrent or refractory CDI	1 year	Number of patients on anti-secretory therapy after FMT (success)	Number of patients on anti-secretory therapy after FMT (fail)	Cure

Hospitalised after FMT (not CDI) vs not hospitalised

Author, Year	Study Design	Country	Number of sites	Population	Length of	Exposure or intervention	Control	Outcomes

					follow-up			
Terveer, 2020[23]	Case control	Netherlands	1	Patients w/ CDI – age NS	Up to 149 weeks	Proportion of patients hospitalised after CDI (not for CDI) (success)	Proportion of patients hospitalised after CDI (not for CDI) (failed)	Cure

Median time from FMT to first defecation

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Time from FMT to first defecation								
Kachlikova, 2020[20]	Case control	Slovakia	1	Patients w/ recurrent CDI undergoing FMT	12 weeks	Median time from FMT to 1st defecation (success)	Median time from FMT to 1st defecation (failure)	Cure

Prophylactic FMT (section 4.7)

No studies

Additional data from excluded studies:

Citation	
Kates AE et al, 2020[115]	Study protocol

FMT for non-CDI indications (section 4.8)

Ulcerative colitis

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of**	**Exposure or intervention**	**Control**	**Outcomes**

					follow-up			
Chehade, 2022[116]	Systematic review (6x RCT)	USA (3x Australia, 1x Canada, 1x Netherlands, 1x USA)	NR	Patients >18 w/ ulcerative colitis	7-12 weeks	FMT (various types)	Placebo	Effectiveness, adverse events
Brezina, 2021[117]	RCT	Czech Republic	NR	Patients >18 w/ left-sided ulcerative colitis	NR	FMT (enema)	Topical mesalamine	Effectiveness, adverse events
Tkach, 2022[118]	RCT	Ukraine	1	Patients >18 w/ ulcerative colitis	8 weeks	FMT (colonoscopy) + mesalazine	Mesalazine	Effectiveness, adverse events, QoL

Crohn's Disease

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Sokol, 2020[129]	RCT	France	6	Patients >18 w/ CD (in flare)	24 weeks	FMT after steroids	Sham FMT after steroids	Effectiveness

Pouchitis

Author, Year	**Study Design**	**Country**	**Number of sites**	**Population**	**Length of follow-up**	**Exposure or intervention**	**Control**	**Outcomes**
Herfarth, 2019[130]	RCT	USA	1	Patients >18 w/ abx-dependent pouchitis	16 weeks	FMT (endoscopy + capsules)	Placebo	Effectiveness, adverse events

Karjalainen, 2021[131]	RCT	Finland	1	Patients >18 w/ chronic pouchitis	52 weeks	FMT (endoscopy + capsules)	Autologous FMT	Effectiveness, adverse events

Irritable Bowel Syndrome

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Wu, 2022[132]	Systematic review (7xRCT)	China (RCTs x6 Europe, x1 USA)	12 (min-max 1-3)	Patients >18 w/ IBS	24weeks to 12 months	FMT (upper GI, capsules, colonoscopy)	Placebo	Effectiveness, adverse events, QoL
Singh, 2021[133]	RCT	USA	1	Patients >18 w/ IBS	10 weeks	FMT alone or FMT + abx	Placebo	Effectiveness, adverse events, QoL
Tkach, 2022b[134]	RCT	Ukraine	1	Patients >18 w/ post-infectious IBS	12 weeks	FMT (colonoscopy)	Standard care	Effectiveness, adverse events

Constipation

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Fang, 2021[145]	Systematic review (5xRCT)	China (RCTs x5 China)	NR	Patients >18 w/ functional constipation	4-12 weeks	FMT + oral laxatives (same as control)	Oral laxatives	Effectiveness

Preventing hepatic encephalopathy in patients with decompensated cirrhosis

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Hong, 2022[146]	Systematic review (2xRCT, 1 case series)	USA (RCT x2 USA, CS x1 India)	NR*	Patients >18 w/ Decompensated Cirrhosis.	8 weeks	FMT (enema, capsules, colonoscopy)	Standard care (x2 RCT) or no comparison	Effectiveness, adverse events

Metabolic syndrome

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes
Mocanu, 2021[148]	RCT	Canada	1	Patients >18 w/ obesity & metabolic syndrome	6 weeks	I1: FMT + high-fermentable fibre I2: FMT + low-fermentable fibre	C1: high-fermentable fibre C2: low-fermentable fibre	Effectiveness
Smits, 2018[149]	RCT	USA	1	Patients >18 w/ obesity & metabolic syndrome	2 weeks	FMT	Autologous FMT	Effectiveness

Obesity

Author, Year	Study Design	Country	Number of sites	Population	Length of follow-up	Exposure or intervention	Control	Outcomes

Allegretti, 2020c[154]	RCT	USA	1	Patients >18 w/ BMI>35	12 weeks	FMT (capsules)	Placebo (capsules)	Effectiveness

Data from excluded studies

Koopen, 2021[150]	Metabolic syndrome
Craven, 2020[151]	NAFDL & metabolic syndrome
Yu, 2020[152]	Obesity and insulin resistance
De Groot, 2019[153]	Obesity and insulin resistance
Huttner, 2019[159]	MDRO
Bilsen, 2022[161]	MDRO

b) summary of findings tables

Effectiveness and safety of FMT (section 4.1)

General population

Effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Hvas, 2019[12]	No. of patients w/ clinical resolution + -ve CDI test @ *1 week*	24	C1: 16 C2: 24	13 (54%)	C1: 2 (13%) C2: 9 (38%)	C1: p=0.01 C2: p=0.25	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Hvas, 2019[12]	No. of patients w/ clinical resolution + -ve CDI test @ *8 weeks*	24	C1: 16 C2: 24	17 (71%)	C1: 3 (19%) C2: 8 (33%)	C1: p=0.001 C2: p=0.009	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Hvas, 2019[12]	No. of patients w/ clinical resolution @ *1 week*	24	C1: 16 C2: 24	21 (88%)	C1: 6 (38%) C2: 14 (58%)	C1: p=0.02 C2: p=0.002	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Hvas, 2019[12]	No. of patients w/ clinical resolution @ *8 weeks*	24	C1: 16 C2: 24	22 (92%)	C1: 3 (19%) C2: 10 (42%)	C1: p=0.0002 C2: p<0.0001	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Hvas, 2019[12]	No. of patients w/ -ve CDI test @ *1 week*	24	C1: 16 C2: 24	16 (67%)	C1: 7 (44%) C2: 14 (58%)	C1: p=0.21 C2: p=0.55	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Hvas, 2019[12]	No. of patients w/ -	24	C1: 16 C2: 24	17 (71%)	C1: 5 (31%) C2: 11 (46%)	C1: p=0.01	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube C1: vancomycin 10d, 125mg x4/d

	ve CDI test @ *8 weeks*					C2: p=0.08	C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD.
Baunwall 2021[13]	No. of patients w/ -ve CDI test @ *8 weeks*	21	21	19 (90%)	7 (33%)	p<0.001	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Trial terminated early due to superiority of FMT. Resolution = no symptoms and -ve test at 8 weeks. Trial terminated early due to superiority of FMT.
Baunwall 2021[13]	No. of patients w/ -ve CDI test @ *1 week*	21	21	19 (90%)	16 (76%)	p=0.40	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
van Nood, 2013[2]	No. of patients w/	16	a. 12 b. 13	13 (81%)	a. 4 (31%) b. 3 (23%)	p<0.001	Intervention was 5d vancomycin w/ bowel lavage on D5 and FMT via ND tube on D6. Control was a.

	success at 10 weeks *After 1 FMT*		T=25		T=7 (27%)		vancomycin for 14d or b. vancomycin for 14d + bowel lavage on D4 or 5. Fresh stool infused within 6hrs. Success defined as cure and no relapse within 10 weeks. If second FMT, the follow up was 10 weeks after the second. Trial terminated early due to superiority of FMT – all relapsed patients given rescue FMT.
van Nood, 2013[2]	No. of patients w/ success at 10 weeks *After 1 or more FMT*	16	a. 13 b. 13 T=26	15 (94%)	a. 4 (31%) b. 3 (23%) T=7 (27%)	p<0.0001	Intervention was 5d vancomycin w/ bowel lavage on D5 and FMT via ND tube on D6. Control was a. vancomycin for 14d or b. vancomycin for 14d + bowel lavage on D4 or 5. Fresh stool infused within 6hrs. Success defined as cure and no relapse within 10 weeks. If second FMT, the follow up was 10 weeks after the second. Trial terminated early due to superiority of FMT – all relapsed patients given rescue FMT.
Cammarota 2015[14]	No. of patients w/ success at 10 weeks *After 1 FMT*	20	19	13 (65%)	5 (26%)	p<0.0001	Intervention was vancomycin for 3 days, bowel clean on a last day and FMT (mostly from related donors) via colonoscopy the next day. Control was vancomycin for 10d followed by 3 weeks of 'pulse' vancomycin every 2 or 3 days. Protocol was updated shortly after the start of the trial and all PMC patients received FMT every three days until resolution of colitis. Stoll was fresh, infused within 6 hrs from the time of donation (time from defecation to donation not specified, but authors reported that the stool was 'rapidly transported'). Follow up was 10 weeks, for FMT, this was from the last infusion, for vancomycin the last day of treatment. Trial terminated early due to superiority of FMT. Worth noting that all 13 patients were non-PMC and remaining 7 were all

							PMC. Two patients in vancomycin group also died due to CDI recurrence
Cammarota 2015[14]	No. of patients w/ success at 10 weeks *After 1 or more FMT*	20	19	18 (90%)	5 (26%)	p<0.0001	Intervention was vancomycin for 3 days, bowel clean on a last day and FMT (mostly from related donors) via colonoscopy the next day. Control was vancomycin for 10d followed by 3 weeks of 'pulse' vancomycin every 2 or 3 days. Protocol was updated shortly after the start of the trial and all PMC patients received FMT every three days until resolution of colitis. Stoll was fresh, infused within 6 hrs from the time of donation (time from defecation to donation not specified, but authors reported that the stool was 'rapidly transported'). Follow up was 10 weeks, for FMT, this was from the last infusion, for vancomycin the last day of treatment. Trial terminated early due to superiority of FMT All repeated FMTs were in patients with PMC – 5/7 cured. Two patients had recurrence and both deteriorated and died. These were two first patients in FMT group and were the reason for protocol change. Two patients in vancomycin group also died due to CDI recurrence
Kelly 2016[16]	No. of patients w/ success at 8 weeks *After 1 FMT*	22	24	20 (9%)	15 (63%)	p=0.042	Authors mentioned that of the two patients who did not respond to FMT, one had 20g faeces infused while the other had 60g. One of these patients was given repeat FMT and achieved cure. Also mentioned mean time to recurrence was 10 days and that all 9 patients in autologous FMT were given donor FMT and were cured. Also mentioned that of all cured patients, 3 were CD toxin positive at 8 weeks but asymptomatic. There were no late recurrences in either group (8-weeks to 6-months)

							FMT delivered fresh within 6hrs from donation Protocol said patients were supposed to receive 100g faeces but this was not possible to achieve for many and 37/46 were given less than 100g.
Hota 2017[15]	*No. of patients w/ success at 120 days After 1 FMT*	16	12	7 (44%)	7 (58%)	NR	FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*Median days until recurrence*	16	7	9 days	35 days (from day 0 but 7 days after finishing the taper)	NR	FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups

Data for meta-analysis

Author	Intervention details	Total in FMT	Response in FMT	Total in non-FMT comparator	Response in non-FMT comparator
van Nood, 2013[2]	I: FMT ND tube; C: vancomycin	16	15	26	7
Cammarota 2015[14]	I: FMT colonoscopy; C: vancomycin	20	18	19	5

Kelly 2016[16]	I: FMT colonoscopy; C: autologous FMT colonoscopy	22	20	24	15
Hota 2017[15]	I: FMT enema; C: vancomycin	16	7	12	7
Hvas, 2019[12]	I: FMT colonoscopy; C: vancomycin or fidaxomicin	24	22	40	13
Baunwall 2021[13]	I: FMT oral capsules; C: placebo capsules	21	19	21	7

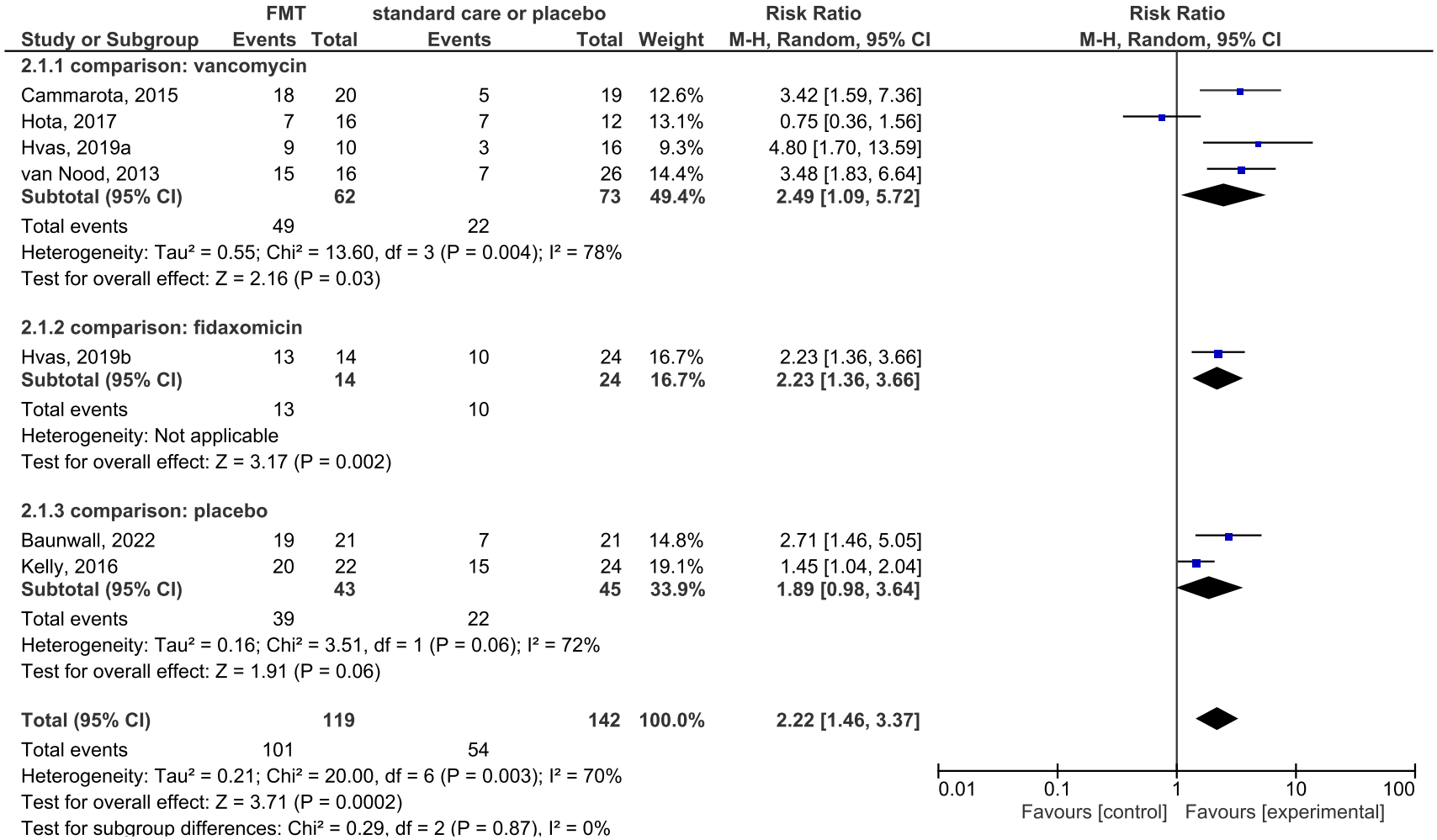


Figure 1: Meta analysis: RR FMT vs standard care or placebo.

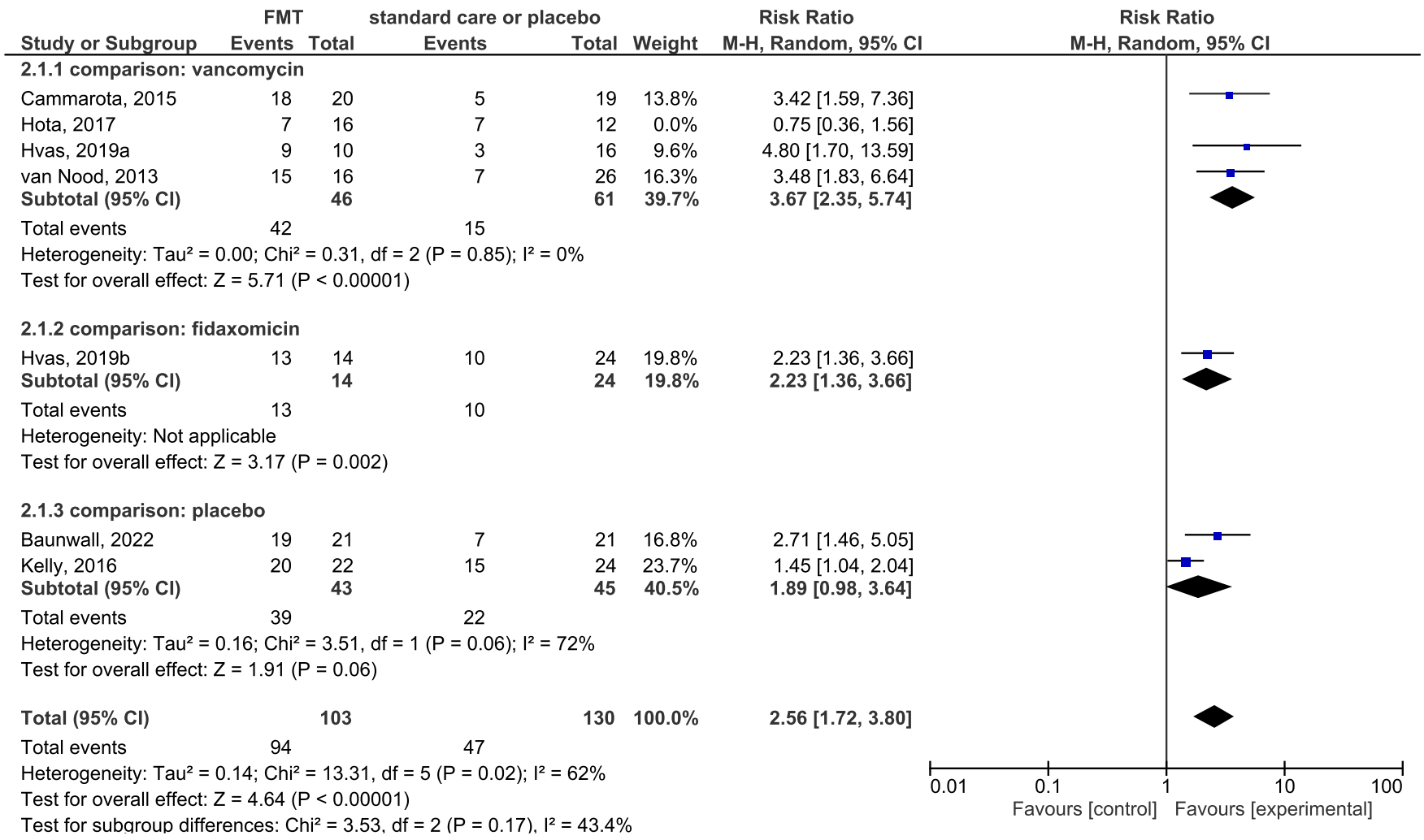


Figure 2: Meta analysis: RR FMT vs standard care or placebo excluding enema study.

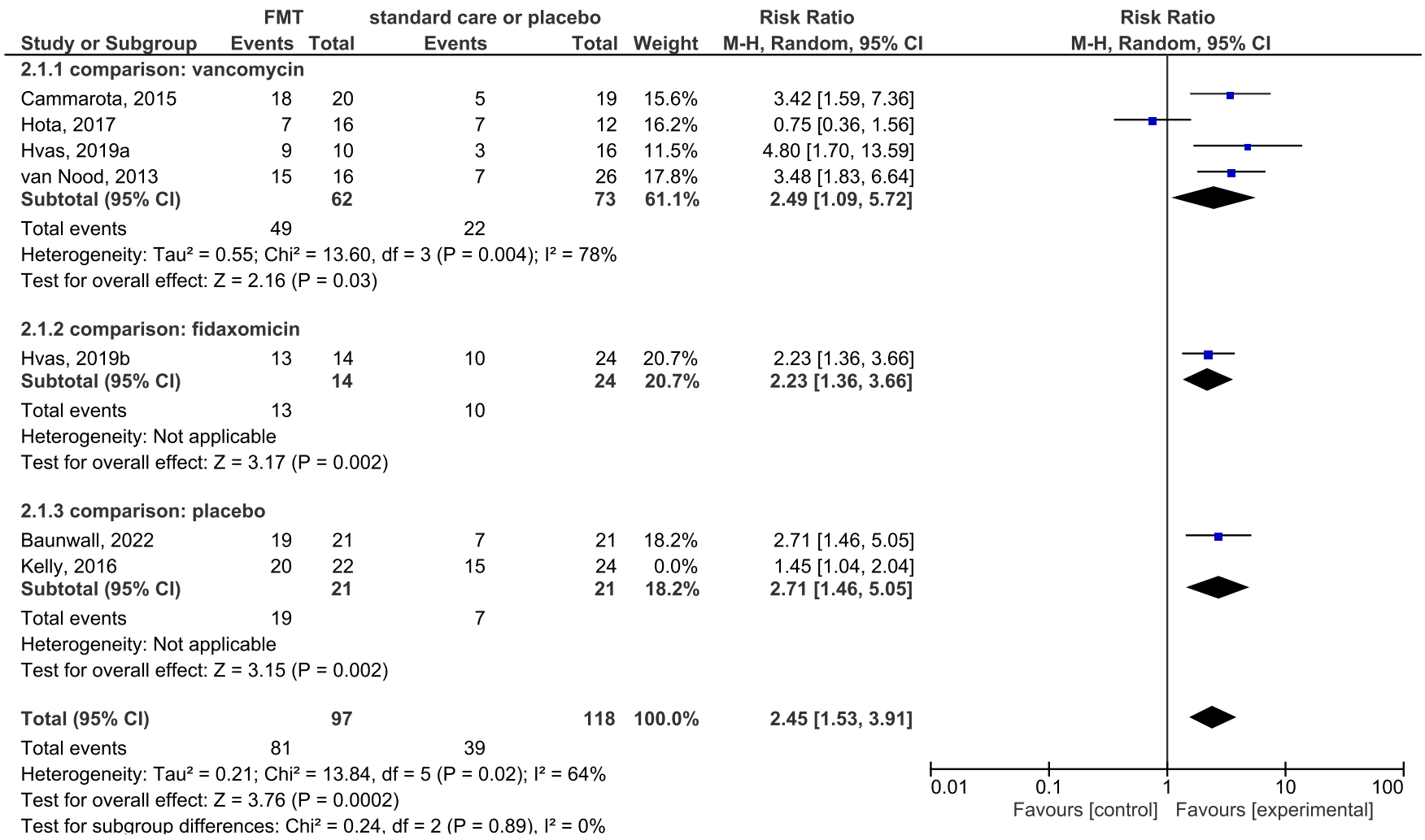


Figure 3: Meta analysis: RR FMT vs standard care or placebo excluding autologous transplant study.

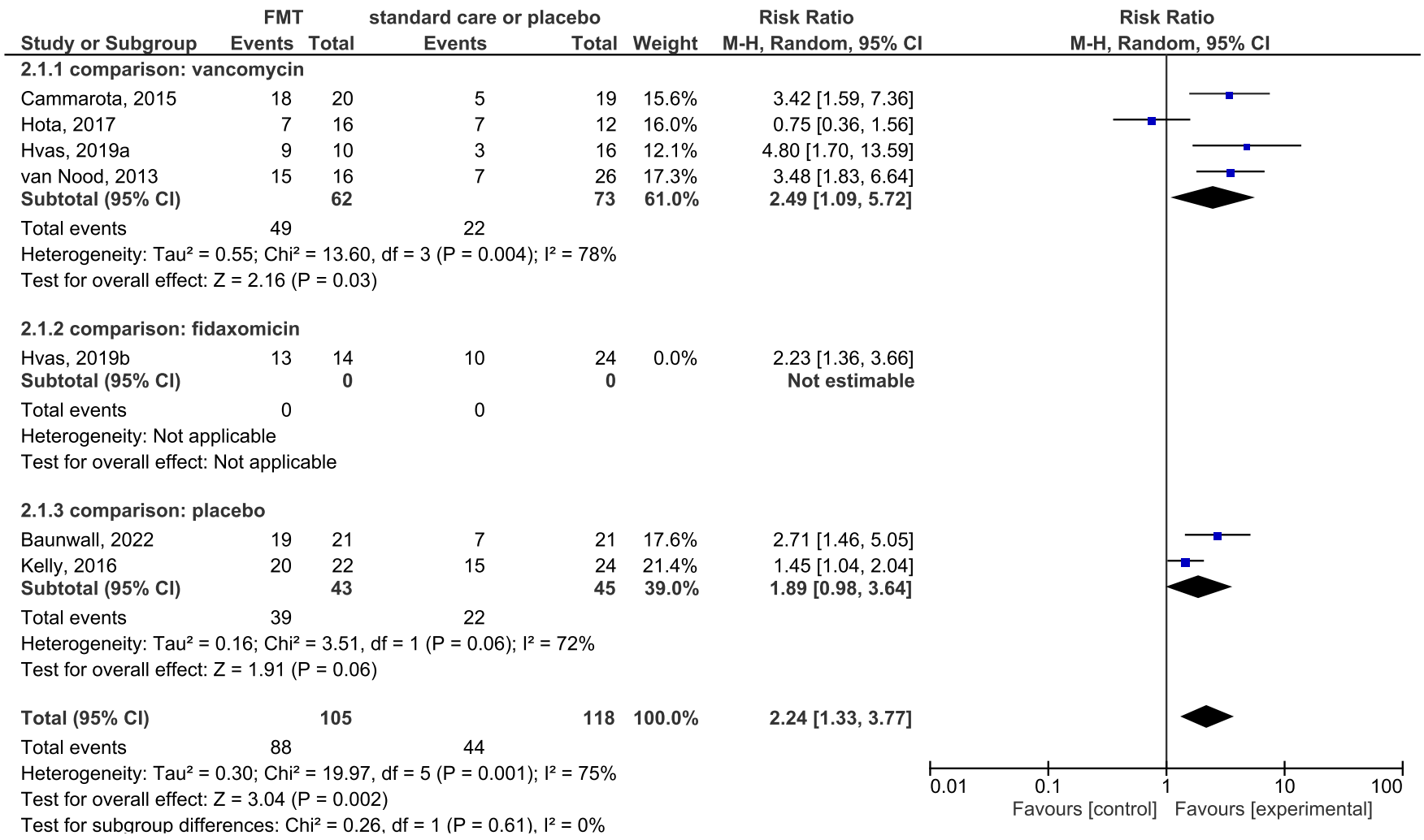


Figure 4: Meta analysis: RR FMT vs standard care or placebo excluding fidaxomicin study.

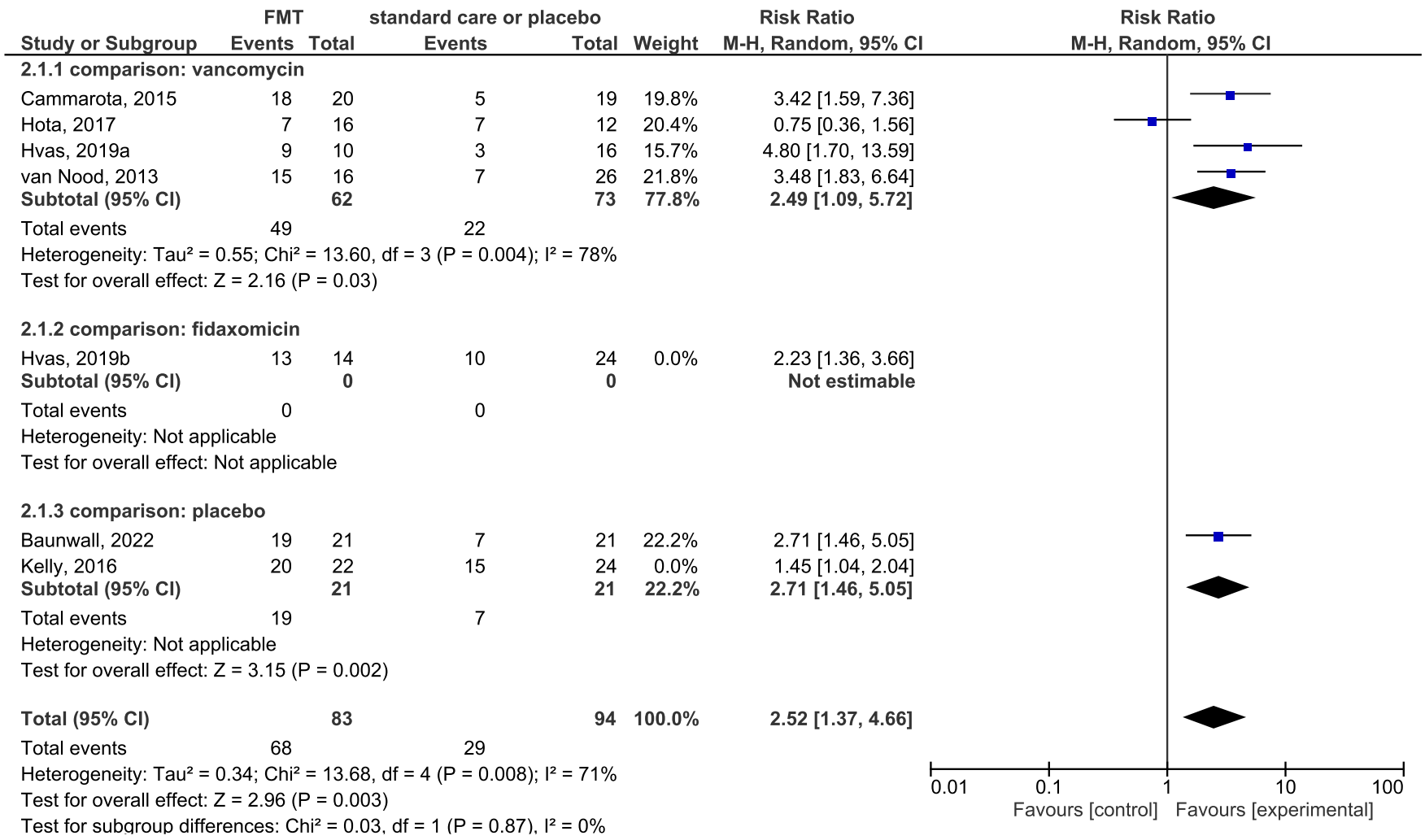


Figure 5: Meta analysis: RR FMT vs standard care or placebo excluding fidaxomicin and autologous transplant study.

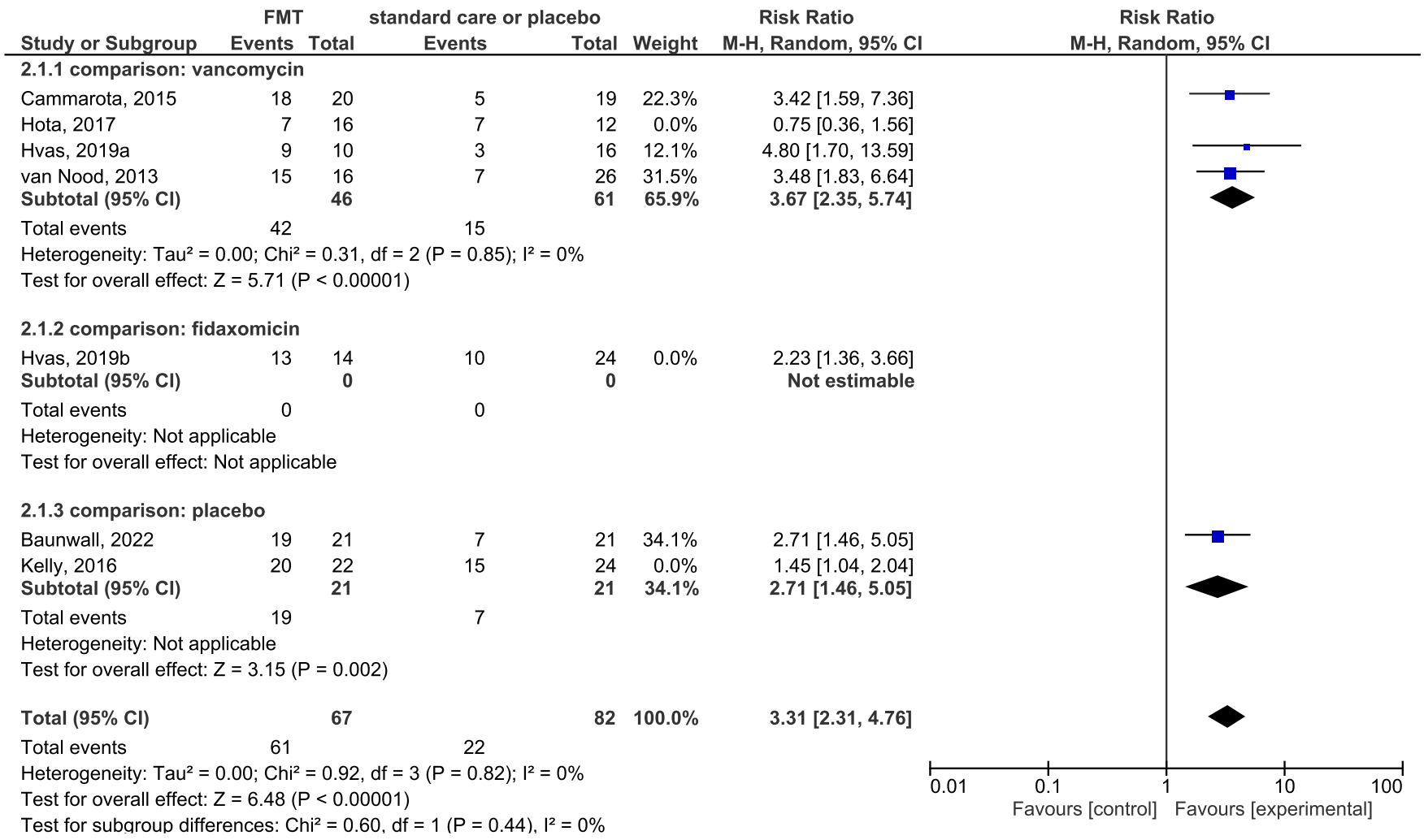


Figure 6: Meta analysis: RR FMT vs standard care or placebo excluding fidaxomicin, autologous transplant and enema study.

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Hvas, 2019[12]	No. of patients developing adverse events *immediate events*	24	C1: 16 C2: 24	10	C1: NR C2: NR	C1: NS C2: NS	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube. Developed pain (x1), bloating (x5), constipation (x1), diarrhoea (x3) – all transient C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD. Adverse events in control groups not reported but authors mentioned NS. No changes in body weight, haemoglobin or albumin in either group.
Hvas, 2019[12]	No. of patients developing adverse events *serious (up to 8 weeks)*	24	C1: 16 C2: 24	1	C1: NR C2: NR	C1: NS C2: NS	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube. Developed sepsis-like symptoms which resolved without treatment within 24hrs C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD. Adverse events in control groups not reported but authors mentioned NS. No changes in body weight, haemoglobin or albumin in either group.
Hvas, 2019[12]	No. of adverse events *up to 8 weeks*	24	C1: 16 C2: 24	48	C1: NR C2: NR	C1: NS C2: NS	FMT: preceded by 4–10 d vancomycin 125mg x4/d, 19x colonoscopy, 5x NJ tube. More than one adverse event could be observed in patients C1: vancomycin 10d, 125mg x4/d C2: fidaxomicin 10d, 200mg x2d Reported 23% of 64 participants had IBD. Adverse events in control groups not reported but authors mentioned NS. No changes in body weight, haemoglobin or albumin in either group.

Hvas, 2019[12]	No of patients from rescue therapy developing adverse events	22	-	4	-	-	Patients In rescue therapy: either not included in RCT or in control group given rescue therapy: headache and dizziness x1, bloating x1, pain and vomiting x1, pain and nausea x1
Baunwall 2021[13]	No. of patients w/ at least one adverse event	21	21	20 (95%)	21 (100%)	p =1.0	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of adverse events	21	21	112 (5.3 per participant)	92 (4.4 per participant)	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks

Baunwall 2021[13]	Total number of serious adverse events	21	21	2 (10%)	2 (10%)	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of serious adverse events related to FMT or placebo	21	21	1 (5%) Hospitalisation due to severe abdominal pain, and vomiting consistent w/ constipation	2 (10%) 1x bacteraemia and confusion 1x pneumonia	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of diarrhoea	21	21	23	14	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral

							metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of abdominal pain	21	21	14	11	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of nausea	21	21	12	5	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks

Baunwall 2021[13]	Total number of bloating	21	21	6	7	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of malaise	21	21	6	4	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of abdominal sounds	21	21	6	2	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral

							metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of urgency to defecate	21	21	4	3	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of fatigue	21	21	1	5	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks

Baunwall 2021[13]	Total number of fever	21	21	4	2	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of vomiting	21	21	4	1	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of flank pain	21	21	23		-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral

							metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of hot flushes	21	21	4	0	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of constipation	21	21	2	2	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks

Baunwall 2021[13]	Total number of GI events at administration	21	21	7	0	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of GI events within 24hrs	21	21	40	26	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
Baunwall 2021[13]	Total number of GI >24hrs	21	21	33	31	-	Patients were >18y, w/ first or second CDI (diarrhoea + +ve CDI), on vancomycin only. Intervention: FMT, oral capsules, Control: placebo capsules. Both groups were on vancomycin for a minimum of 10d before FMT. After vancomycin finished, oral capsules given on D1, D3 and D7. Followed for 8 weeks. All given 10 mg oral

							metoclopramide 10 min before FMT, capsules swallowed w/ apple juice or diet cola after 6h fasting. Reported all patients offered rescue FMT if CDI recurred, regardless of the allocation. Resolution = no symptoms and -ve test at 8 weeks
van Nood, 2013[2]	No. of patients w/ adverse events	16	NR	15 (94%)	NR	-	Adverse events were noticed immediately on a day of the infusion: 15x diarrhoea (94%), 5x cramping (31%), 3x belching (19%) and 2x abdominal pain (12.5%), 1x dizziness with diarrhoea all resolved within 24hrs; afterhis time 3 patients (19%) developed constipation. 4 non-GI events were >24hrs and UTI, fever during haemodialysis, hospital admission for choledocholithiasis. In control group, not reported. Authors mentioned death in control group not related to treatment or CDI
Cammarota 2015[14]	No. of patients w/ diarrhoea	20	19	19 (94%)	0	-	Intervention was vancomycin for 3 days, bowel clean on a last day and FMT (mostly from related donors) via colonoscopy the next day. Control was vancomycin for 10d followed by 3 weeks of 'pulse' vancomycin every 2 or 3 days. Protocol was updated shortly after the start of the trial and all PMC patients received FMT every three days until resolution of colitis. Stoll was fresh, infused within 6 hrs from the time of donation (time from defecation to donation not specified, but authors reported that the stool was 'rapidly transported'). Follow up was 10 weeks, for FMT, this was from the last infusion, for vancomycin the last day of treatment. Trial terminated early due to superiority of FMT

							All symptoms immediately after infusion, resolved within 12hrs No adverse events due to vancomycin
Cammarota 2015[14]	No. of patients w/ bloating	20	19	12 (60%)	0	-	Intervention was vancomycin for 3 days, bowel clean on a last day and FMT (mostly from related donors) via colonoscopy the next day. Control was vancomycin for 10d followed by 3 weeks of 'pulse' vancomycin every 2 or 3 days. Protocol was updated shortly after the start of the trial and all PMC patients received FMT every three days until resolution of colitis. Stoll was fresh, infused within 6 hrs from the time of donation (time from defecation to donation not specified, but authors reported that the stool was 'rapidly transported'). Follow up was 10 weeks, for FMT, this was from the last infusion, for vancomycin the last day of treatment. Trial terminated early due to superiority of FMT All symptoms immediately after infusion, resolved within 12hrs. there is a typo in a paper which says 12/29 patients (60%) – 29 must be a mistake as 12/20=60% No adverse events due to vancomycin.+54
Kelly 2016[16]	No. of patients w/ adverse events	22	24	NR	NR	NS	Authors reported that frequent AE in both groups included diarhoea, abdo pain, fatigue and gas, less frequently bloating, nausea, flatulence, vomiting, anorexia and constipation. The only almost significant difference was chills which occurred more common in autologous group (p=0.053).
Kelly 2016[16]	No. of patients w/ severe	22	24	1	3	NS	In intervention group: one patient had a polyp identified during FMT, this was removed after four months and patient was admitted to hospital w/ bleeding. Bit considered related to FMT/CDI. In

	adverse events						control group: hospitalisation for diarrhoea 3-months after a-FMT (self-limited and CDI-negative), hospitalisation 9 weeks after a-FMT + hospitalisation of mood disorder, hospitalisation 3d after a-FMT – symptoms resolved after vancomycin and d-FMT. New conditions at 6 months, all in d-FMT group: 20lb weight gain, pulmonary nodule which required additional investigations, recurrence of bowel cancer, worsening chronic shoulder pain, improvement of dry month.
Hota 2017[15]	*No. of patients w/ fever early (d1-7 occurrence)*	16	7	1 (6.2%)	0 (0.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ fever late (d>7 occurrence)*	16	7	2 (18.2%)	1 (8.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ nausea or vomiting early (d1-7 occurrence)*	16	7	4 (25.0%)	3 (25.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups

Hota 2017[15]	*No. of patients w/ nausea or vomiting late (d>7 occurrence)*	16	7	0 (0.0%)	3 (25.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo pain or tenderness early (d1-7 occurrence)*	16	7	6 (37.5%)	5 (41.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo pain or tenderness late (d>7 occurrence)*	16	7	4 (36.4%)	9 (75.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo distention early (d1-7 occurrence)*	16	7	6 (37.5%)	4 (33.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo distention*	16	7	3 (27.3%)	4 (33.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover

	late (d>7 occurrence)						treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo bloating early (d1-7 occurrence)*	16	7	6 (37.5%)	6 (50.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ abdo bloating late (d>7 occurrence)*	16	7	3 (27.3%)	7 (58.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients feeling unwell early (d1-7 occurrence)*	16	7	6 (37.5%)	3 (25.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients feeling unwell late (d>7 occurrence)*	16	7	3 (27.3%)	4 (33.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ mucoid stools*	16	7	6 (37.5%)	2 (16.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a

	early (d1-7 occurrence)						day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ mucoid stools late (d>7 occurrence)*	16	7	4 (36.4%)	6 (50.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ bloody stools early (d1-7 occurrence)*	16	7	1 (6.2%)	0 (0.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ bloody stools late (d>7 occurrence)*	16	7	2 (18.2%)	2 (16.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ smelly stools early (d1-7 occurrence)*	16	7	6 (37.5%)	2 (16.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups

Hota 2017[15]	*No. of patients w/ smelly stools late (d>7 occurrence)*	16	7	3 (27.3%)	6 (50.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ faecal incontinence early (d1-7 occurrence)*	16	7	4 (25.0%)	3 (25.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ faecal incontinence late (d>7 occurrence)*	16	7	3 (27.3%)	4 (33.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ anorexia early (d1-7 occurrence)*	16	7	4 (25.0%)	2 (16.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ anorexia late (d>7 occurrence)*	16	7	2 (18.2%)	3 (25.0%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover

							treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ fatigue early (d1-7 occurrence)*	16	7	5 (31.2%)	5 (41.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ fatigue late (d>7 occurrence)*	16	7	4 (36.4%)	8 (66.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ skin rash early (d1-7 occurrence)*	16	7	0 (0.0%)	1 (8.3%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups
Hota 2017[15]	*No. of patients w/ sin rash late (d>7 occurrence)*	16	7	0 (0.0%)	2 (16.7%)		FMT given via enema, stool was 50g infused fresh up to 48hrs after defecation. Followed for 120days, day 0 was the day of FMT for intervention and a day vancomycin taper started for control group. Reported patients who failed offered crossover treatment and followed for further 120 days. 120 days = 17 weeks – longer than in other groups

QoL

No studies

Effectiveness in patients with severe or complicated CDI

Effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Rupawala, 2021[17]	Number of patients who experienced sustained cure after 1 or more FMT (defined as no recurrence within 30 days)	15	-	5 (33%)	-	-	Case series study (n=16) which reported the use of FMT (via retention enema) in patients with severe or severe/complicated CDI. The median number of FMTs performed in this cohort was 3 and 2 patients received 4 FMTs. One patient excluded as later diagnosed with UC and FMTs stopped.

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Rupawala, 2021[17]	Number of patients who experienced severe adverse events within 30d	15	-	8 (53%)	-	-	Case series study (n=16) which reported the use of FMT (via retention enema) in patients with severe or severe/complicated CDI. The median number of FMTs performed in this cohort was 3 and 2 patients received 4 FMTs. One patient excluded as later diagnosed with UC and FMTs stopped. Included 5 (33%) deaths, 2 hospitalisations (13.3%)

							and 1 (97%) colectomy. Four of these events were considered to be associated with CDI (27%) and further 4 unrelated.

QoL

No studies

Patients with severe vs mild/moderate CDI

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Popa, 2021[18]	Number of patients with initial success after one FMT	63	33	54 (85.7%)	31 (93.9%)		Severe vs non-severe. Severe CDI defined as WBC >15,000, CRP >50, temperature >38.5, septic shock or pseudomembranous colitis. FMT given 24-48hrs after 10d antibiotics, fresh sample given via colonoscopy after bowel prep. Loperamide given afterwards Those who replaced (n=11) had a repeat FMT but results not reported
Popa, 2021[18]	Number of patients with initial success and no recurrence after one FMT	63	33	45 (71.4%)	29 (87.8%)		Severe vs non-severe. Severe CDI defined as WBC >15,000, CRP >50, temperature >38.5, septic shock or pseudomembranous colitis. FMT given 24-48hrs after 10d antibiotics, fresh sample given via colonoscopy after bowel prep. Loperamide given afterwards Authors reported recurrence rates as 14.3 in severe and 6.0% in non-severe infection but the denominator doesn't make sense: based on total number of patients while numerator is the number of patient who experienced initial success but failed later – thus excluding patient with an initial failed FMT. Denominator should have been number of patients who experienced success only

							(i.e. recurrence could only be defined as initial success and return of CDI), which would be 9/54 (17% in severe and 2/31 (6.5%) in non-severe.
Alghamdi, 2019[19]	Number of patients with severe CDI *Successful vs failed*	27	2	8 (29.6%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Kachlikova, 2020[20]	No of patients w/ severe CDI *successful vs failed*	45	15	NR	NR	Univariate OR= 1.6 [0.9–2.7] p=0.157	All FMT given by retention enema. NS at univariate, not taken to multivariate analysis
Peri, 2019[21]	OR failure at 30d *Severe CDI*	49	191			UV: OR=NR, p=0.374 MV: OR= 0.311 [0.083-1.166], p=0.083	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Tariq, 2021[22]	Type of CDI *successful vs failed*	70	70	Recurrent: 66 (94.2%) Severe: 2 (2.8%) Recurrent severe: 2 (2.8%)	Recurrent: 67 (95.7%) Severe: 1 (1.4%) Recurrent severe: 2 (2.8%)	p=0.53	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late

							failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Proportion of patients with severe CDI *relapsed vs cured within 2m*	13	116	1 (8%)	2 (2%)	OR 4.8 [0.4-56.3], p=0.28	Severe CDI was an indication for FMT
Watts, 2022[24]	OR for failure: Severe CDI	11	92	NR	NR	Multivariate OR for failure: 3.86 [0.91-16.25], p=0.065	Incidence cases not reported but 13 were family donation and the rest from the faeces bank. Authors also reported that universal donor testing was more robust

Adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
Popa, 2021[18]	Number of patients who died following FMT	63	33	1 (1.6%)	0 (0%)	-	Severe vs non-severe. Severe CDI defined as WBC >15,000, CRP >50, temperature >38.5, septic shock or pseudomembranous colitis. FMT given 24-48hrs after 10d antibiotics, fresh sample given via colonoscopy after bowel prep. Loperamide given afterwards Death unrelated to FMT or CDI

QoL

No studies

Patients with refractory or fulminant vs recurrent CDI

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Ponte 2018[25]	No of people w/ cure *after first FMT refractory vs recurrent CDI*	12	13	11 (91.7%)	11 (84.6%)	p=0.6	Recurrent defined as at least 3x episodes of mild/moderate CDI or at least 2x episodes of severe CDI Refractory defined as moderate CDI not responding to vancomycin within 1 week or severe CDI not responding to vancomycin within 48hrs All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three patients who had abx-associated diarrhoea (for respiratory infection) who were still considered 'cured'. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months.
Dogra, 2022[26]	Proportion of patients w/ recurrent CDI *successful vs failed*	140	25	109 (77.9)	12 (48.0)	p=0.006	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5). the remaining patients had refractory CDI
Yoon, 2021[27]	Proportion of patients who responded to	9	11	5 (55.6%)	10 (90.9%)	p=0.127	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.

	1 or more FMT *Fulminant vs recurrent CDI*						
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT *Partially responded to abx for CDI vs not*	13	7	13 (100%)	2 (28.6%)	p=0.001	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 2 months *refractory vs recurrent CDI*	37	80	7 (18.9%)	16 (20%)	p=0.89	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 117 patients available at 2 month follow-up
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 6 months *refractory vs recurrent CDI*	24	59	11 (45.8%)	20 (33.9%)	p=0.31	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 83 patients available at 6 month follow-up
McCune 2020[29]	No of patients with resolution of diarrhoea within 7 days	48	70	35 (73%)	64 (91%)	p=0.007	Based on patients who were alive after 7 days and available for follow up. Total were 124 patients but 3x lost to follow up, 2x died (1x colon cancer and 1x perforated viscous and CDI presumed non-response to treatment) and 1x excluded as received abx at the same time

	refractory vs recurrent						
McCune 2020[29]	No of patients with no recurrence of diarrhoea within 90 days *refractory vs recurrent*	34	51	28 (82%)	38 (75%)	p=0.4	Based on patients who responded to therapy with one or more FMT and survived until d90

Adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
Ponte 2018[25]	No of people w/ adverse events *after first FMT refractory vs recurrent CDI*	12	13	0	0		Recurrent defined as at least 3x episodes of mild/moderate CDI or at leadt 2x episodes of severe CDI Refractory defined as moderate CDI not responding to vancomycin within 1 week or severe CDI not responding to vancomycin within 48hrs All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three patients who had abx-associated diarrhoea (for

							respiratory infection) who were still considered 'cured'. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months. Adverse events assessed immediately and after 2 months follow-up

QoL

No studies

Patients with pseudomembranous v no pseudomembranous CDI

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients with pseudomembranous *Successful vs failed*	27	3	3 (11.5%)	1 (33%)	p=0.2611	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Tariq, 2021[22]	Number of patients w/ pseudomembranes before FMT *successful vs failed*	70	70	0 (0%)	3 (4.3%)	p=0.03	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis not performed – no. of events too small. Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also

							performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria

QoL

No studies

Patients with first episode of CDI

Effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Baunwall, 2022[13]	No of patients with resolution	14	11	13 (93%)	4 (36%)	RR=0.112 [0.016 to 0.7817], p=0.027	Med calc
Roshan, 2020[30]	Number of patients w/ successful FMT	54	53 (98%)	-	-	-	Based on a sample of 54/59 patients who underwent FMT but completed a questionnaire at follow-up. All were first time CDI patients, all except one first given 10-12d vancomycin and/or metronidazole and followed up by two courses of FMT: first as colonoscopy and followed by enema the following day – all fresh, all from universal donors actively donating to the centre. One patient not given abx for CDI before FMT Treatment success was -ve culture and CDI toxin at 4-8 weeks follow up. Reported 44% patients ad other medical conditions, 20% patients had IBD or IBS. The

							authors also reported symptom improvement at 6m follow-up but only p-value reported.

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Baunwall, 2022[13]	No of patients with any adverse events	14	11	14 (100%)	11 (100%)	-	Data obtained from personal communication with the authors Adverse events in both groups included GI symptoms, i.e. diarrhoea, abdominal pain, bloating, nausea, stomach growling. Other events included fever, malaise and flank pain. Most symptoms reported to have resolved and improved.
Baunwall, 2022[13]	No of adverse events possibly due to FMT or placebo	14	11	39	43	-	Data obtained from personal communication with the authors
Baunwall, 2022[13]	No of serious adverse events possibly due to FMT or placebo	14	11	0	1	-	Data obtained from personal communication with the authors

QoL

No studies

Patients with Inflammatory Bowel Disease (IBD)

Effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Tariq, 2020[7]	Number of patients who experienced cure after 1 or more FMT	145	-	116 (80%)	-	-	Patients with IBD (UC, CD or indeterminate colitis). Cure was defined as improvement of symptoms or negative CDI test or no response to abx after FMT. Follow up was 0.1 to 51.3 months – median 9.3 months. However, authors reported that only 48 (33.1%) self-reported improvement in symptoms and overall well-being. Authors also assessed the risk factors for failure but this is out of scope for this review (note: no risk factors identified).
Allegretti 2020[32]	Number of patients who responded to FMT and had no recurrence within 8 weeks	49	-	44 (90%)	-	-	Patients with IBD and CDI +ve. 15x CD and 35x UC – one patient recruited did not receive FMT. Total sample = 49 of which one lost to follow-up and treated as FMT failure. Further four patients with failure were CD+ve and had recurrent symptoms – all four were non-respondents and underwent second FMT and achieved cure.
Allegretti 2020[32]	Number of patients who were decolonised 1 week after FMT and remained negative for 8 weeks	49	-	45 (92%)	-	-	

Ianiro 2021[33]	No of patients with negative C. diff toxin test after 8 weeks (*one or multiple infusions*)	18	-	17 (94%)	-	-	All patients with severe CDI received at least two FMTs and those with pseudomembranous colitis underwent FMT until disappearance of pseudomembranes - all delivered every three days. If diarrhoea persisted – test for C. diff toxin and repeat FMT for +ves. All patients received light diet and 2L macrogol before each procedure and FMT was frozen from unrelated donors. In total, 9/18 received at least two FMT, 10/17 (54%) – clinical remission, 4/18 (24%) amelioration from severe to moderate or from moderate to mild.
Ianiro 2021[33]	No of patients with negative C. diff toxin test after 8 weeks (*one infusion*)	15	-	9 (60%)	-	-	All patients with severe CDI received at least two FMTs and those with pseudomembranous colitis underwent FMT until disappearance of pseudomembranes - all delivered every three days. If diarrhoea persisted – test for C. diff toxin and repeat FMT for +ves. All patients received light diet and 2L macrogol before each procedure and FMT was frozen from unrelated donors. Number differs from above as three patients with PMC were scheduled for repeat FMTs at the start and were excluded
Porcari, 2023[34]	No of patients with negative C. diff toxin test after 8 weeks (*one or multiple infusions*)	35	-	32 (91%)	-	-	Age was >16yo, not really our inclusion criteria but median age was 51 and SD was 22.
Porcari, 2023[34]	No of patients with negative C. diff toxin	35	-	16 (46%)	-	-	Authors reported 16/32 – denominator was no. of patients who were cured.

	test after 8 weeks (*one infusion*)						
van Lingen, 2023[35]	No of patients with clinical resolution	105	-	75 (71%)	-	-	Clinical resolution was defined as resolution of diarrhoea or diarrhoea with -ve test. Authors also stated that they performed a case control study to identify risk factors for failure. They did not identify any differences between successful and failed group (demographic, clinical and FMT-related factors).

Results: adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Tariq, 2020[31]	Number of patients who experienced worsening of IBD	145	-	11 (7.6%)	-	-	Patients with IBD (UC, CD or indeterminate colitis). Additional 32 patients continued to have a flare that started before FMT
Tariq, 2020[31]	Median (min-max) number of days until IBD flare	11	-	15 (4-60)	-	-	Patients with IBD (UC, CD or indeterminate colitis).
Tariq, 2020[31]	Number of patients with severe AE	145	-	3 (2.1%)	-	-	2x patients had severe abdominal pain which required A&E visit and investigations (only IBD flare found) 1x patient had severe hypotension requiring hospitalisation and IVF resuscitation
Ianiro, 2021[33]	No of patients with negative	18	-	0	-	-	All patients with severe CDI received at least two FMTs and those with pseudomembranous colitis

	adverse events						underwent FMT until disappearance of pseudomembranes - all delivered every three days. If diarrhoea persisted – test for C. diff toxin and repeat FMT for +ves. All patients received light diet and 2L macrogol before each procedure and FMT was frozen from unrelated donors. No adverse events observed
Porcari, 2023[34]	No of patients with serious adverse events	35	-	0	-	-	Age was >16yo, not really our inclusion criteria but median age was 51 and SD was 22.

Effectiveness IBD vs no IBD

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Hirten 2019[28]	Percentage of patients with recurrence within 2 months *IBD vs no IBD*	NR	NR	22.5%	17.9%	p=0.63	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. No difference in time to first recurrence IBD vs n-IBD (p=0.46)
Hirten 2019[28]	Percentage of patients with recurrence within 6 months *IBD vs no IBD*	NR	NR	38.7%	36.5%	p>0.99	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.

Hirten 2019[28]	Percentage of patients requiring second FMT within 2 months *IBD vs no IBD*	NR	NR	17.2%	16.7%	p>0.99	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Hirten 2019[28]	Proportion of IBD patients w/ recurred CDI within 2 months *CD vs UC patients*	17	23	3 (17.6%)	6 (26.1%)	p=0.71	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 40 IBD patients available at 2 month follow-up
Hirten 2019[28]	Proportion of IBD patients w/ recurred CDI within 6 months *CD vs UC patients*	13	18	3 (23.1%)	9 (50%)	p=0.13	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 31 IBD patients available at 6 month follow-up
Hirten 2019[28]	Proportion of IBD patients w/ recurred CDI within 2 months *remission vs active IBD*	8	31	1 (12.5%)	7 (22.6%)	p>0.99	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 39 IBD patients available at 2 month follow-up
Hirten 2019[28]	Proportion of IBD patients w/ recurred CDI within 6 months *remission vs active IBD*	5	25	1 (20%)	10 (40%)	p=0.63	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 30 IBD patients available at 6 month follow-up

Tabaa, 2018[36]	Number of patients achieving cure at one year	21	57	15 (714%)	45 (789%)	RR = 1.36 [0.58-3.15], p=0.4775	Cure @ 1year defined as no diarrhoea and -ve test for CDI. Comparing IBD and non-IBD. Calculated in MedCalc
Tabaa, 2018[36]	Number of patients who had early recurrence	21	57	2 (9.5%)	6 (10.5%)	RR = 0.90 [0.20 - 4.14], p=0.8973	Cure @ 1year defined as no diarrhoea and -ve test for CDI. Comparing IBD and non-IBD. Early recurrence = <90d Calculated in MedCalc – NS but possibly due to a small sample size
Tabaa, 2018[36]	Number of patients who had late recurrence	21	57	4 (19%)	6 (10.5%)	RR = 1.81 [0.57 - 5.78], p=0.3172	Cure @ 1year defined as no diarrhoea and -ve test for CDI. Comparing IBD and non-IBD. Late recurrence = >90d Calculated in MedCalc – NS but possibly due to a small sample size
Alghamdi, 2019[19]	Proportion of patients with IBD *Successful vs failed*	27	2	3 (11%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Dogra, 2022[26]	Proportion of patients w/ IBD *successful vs failed*	140	25	29 (20.7)	8 (32.0)	p=0.30	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Raghu Subramanian, 2020[37]	Number of patients w/ IBD early fail vs no early fail (cured + late fail)	2	18	1 (50%)	2 (11%)	-	Late fail = initially cured but failed after 1 month

Raghu Subramanian, 2020[37]	Number of patients w/ IBD fail vs no fail	6	14	2 (33%)	1 (7%)	-	No fail = cured after one FMT with no recurrence
Tariq, 2021[22]	Number of patients with IBD *successful vs failed*	70	70	11 (15.7%)	24 (34.3%)	p=0.01 M: OR for failure: 4.34 [1.24-15.15]	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Number of patients with IBD *relapsed vs cured within 2m*	13	114	1 (8%)	13 (11%)	OR 0.7 [0.1-5.4], p=1.0	
Vaughn 2022[38]	Proportion of patients w/ IBD *successful vs recurred*	227	41	13%	12%	p=0.90	Recurred = recurred within 2 months – primary failure excluded
Weingarden, 2022[39]	Proportion of patients w/ IBD *successful vs failed*	168	67	13 (7.74%)	6 (9.00%)	multivariate OR for success: 1.746 (0.192–	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

						15.857), p=0.621	
Pringle 2019[40]	Proportion of patients with IBD *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 0.51 [0.15-1.77] p=0.29 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis
Kim 2019[41]	No of patients who responded to FMT *IBD vs no IBD*	8	27	6 (75%)	24 (89%)	NS	Data calculated from table 3. OR and significance not reported but NS Patients received FMT via colonoscopy or NJ tube, all fresh.

QoL

No studies

Immunosuppressed or immunocompromised patients

Effectiveness in immunocompromised/suppressed patients

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Navalkele, 2020[42]	No of patients with no recurrence within 12 weeks (*after first FMT*)	17	-	14 (82%)	-	-	All patients treated with frozen FMT with abx stopped 24 hrs before procedure

Navalkele, 2020[42]	No of patients with no recurrence within 12 weeks (*after second FMT*)	17	-	16 (94%)	-	-	All patients treated with frozen FMT with abx stopped 24 hrs before procedure. All delivered via retention enema
Cheminet, 2018[43]	Proportion of patients with successful FMT (after one dose)	11	-	11 (100%)	-	-	Success defined as initial response and no recurrence. Capsules from one of three healthy donors, given to patients with recurrent CDI, abx discontinued 48hrs earlier. Regime was 15 capsules/day for 2 days (15-24g total). Minimum follow up was three months and all patients recovered with no relapse. Three patients died (malignancies) with no relapse before death. One patient had new CDI (3 months after FMT, provoked by new abx treatment, due to the initial response and time lapsed this was considered new infection rather than a relapse) and responded to 2nd FMT with no sign of relapse 4 months later.

Results: adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Navalkele, 2020[44]	Adverse events within 12 weeks	17	-	0	-	-	All patients treated with frozen FMT with abx stopped 24 hrs before procedure. All delivered via retention enema. No side effects in immunocompromised group. One person died but determined unrelated to FMT.
Cheminet, 2018[45]	Proportion of patients	11	-	0 (0%)	-	-	Success defined as initial response and no recurrence. Capsules from one of three healthy

	experiencing adverse events						donors, given to patients with recurrent CDI, abx discontinued 48hrs earlier. Regime was 15 capsules/day for 2 days (15-24g total). Minimum follow up was three months and all patients recovered with no relapse. Three patients died (malignancies). Two patients had new CDI (3 and 12 months after FMT, due to the initial responses and time lapsed these were considered new infections rather than relapses) and both responded to 2nd FMT with no sign of relapse 4 and 5 months later. No AE

Effectiveness immunocompromised/suppressed vs not immunocompromised/suppressed

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Alghamdi, 2019[19]	Number of immunocompromised patients *Successful vs failed*	27	2	1 (3.7%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Peri, 2019[21]	OR failure at 30d *Immunosuppression*	49	191			UV: OR=NR, p=0.093 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group

							UV=univariate, MV=multivariate
Tariq, 2021[22]	Number of immunocompromised patients *successful vs failed*	70	70	18 (25.7%)	28 (40%)	p=0.07 M: OR for failure: 1.08 [0.36-3.23]	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Number of immunocompromised patients *relapsed vs cured within 2m*	13	114	C: 8 (61%) M: 3 (23%) S: 2 (15%)	C: 93 (82%) M: 20 (18%) S: 1 (1%)	p=0.01	C: Immunocompetent M: moderately immunocompromised S: Severely immunocompromised - neutropenic, (scheduled or received last 100 days) an allogenic stem cell transplantation, active Graft-versus-host-disease requiring immunosuppressive agents, and moderately immunocompromised when: having <200 CD4 T-cells/ml, prolonged use of corticosteroids at a mean dose of 0.3 mg/kg/d of prednisone equivalent for >3 weeks, treatment with other recognized T-cell immunosuppressants during the last 90 days or have an inherited severe immunodeficiency.
Dogra, 2022[26]	Proportion of immunosuppressed patients	140	25	23 (16.4)	9 (36.0)	p=0.03	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).

	successful vs failed						
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 2 months *immunosuppression vs not*	37	81	8 (21.6%)	15 (18.5%)	p=0.55	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 23/118 patients who experienced recurring CDI within 2 months
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 6 months *immunosuppression vs not*	29	54	11 (37.9%)	20 (37%)	p>0.99	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 31/83 patients who experienced recurring CDI within 6 months
Raghu Subramanian, 2020[37]	Number of immunosuppressed patients early fail vs no early fail (cured + late fail)	2	18	2 (100%)	4 (22%)	-	Late fail = initially cured but failed after 1 month
Raghu Subramanian, 2020[37]	Number of immunosuppressed patients fail vs no fail	6	14	3 (50%)	6 (43%)	-	No fail = cured after one FMT with no recurrence
Vaughn 2022[38]	Proportion of immunocompromised	227	41	23%	21%	p=0.80	Recurred = recurred within 2 months – primary failure excluded

	successful vs recurred						
Weingarden, 2022[39]	Proportion of immunocompromised patients *successful vs failed*	168	67	50 (29.8%)	13 (19.4%)	multivariate OR for success: 0.124 (0.024–0.642), p=0.013	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Pringle 2019[40]	Proportion of patients with immunosupression *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.56 [0.65-3.74] p=0.32 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis
Kim 2019[41]	No of patients who responded to FMT *Immunosuppressant use not*	8	27	5 (63%)	25 (93%)	NS	Data calculated from table 3. In binary logistic regression OR not reported, p=0.052 Patients received FMT via colonoscopy or NJ tube, all fresh.
Urbonas, 2021[44]	Proportion of patients using immunosuppressants *responded vs not responded*	48	12	6 (12.5%)	3 (25%)	p=0.365	

QoL

No studies

Cancer patients

Effectiveness in cancer patients

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Mendelsohn 2022[45]	Number of patients who recovered after FMT	10	-	8 (80%)	-	-	Population was patients over 18yrs with solid tumour and underwent chemo in the last 6 months. FMT via colonoscopy (n=3) or upper endoscopy (n=7). Treatment before was vancomycin alone or in combination with other abx.
Ali, 2021[46]	Number of patients who responded to FMT *8-week follow-up*	19	-	16 (84%)	-	-	Response defined as absence of diarrhoea and no recurrence for 8 weeks. Recurrence defined as initial response and return of symptoms w/ positive CDI test. FMT was 25g fresh stool in 250ml saline, frozen and thawed, delivered to caecum via colonoscopy. Patients given colon cleansing and instructed to take 4mg loperamide before FMT. Three patients who had no response: 2x had persistent diarrhoea but negative CDI test, one responded initially but recurrent CDI four days after FMT after using abx. Authors conducted a case control study comparing different risk factors – all NS but very small sample size. Cancer type, treatment, state of the disease, use of abx and immunosuppressants, age – all NS
Ali, 2021[46]	Number of patients who responded to	19	-	14 (74%)	-	-	

	FMT *1-y follow-up*						
Ali, 2021[46]	Number of patients who responded to FMT *8-week follow-up solid vs haematological*	12	7	10 (83%)	6 (86%)		
Ali, 2021[46]	Number of patients who responded to FMT *1-y follow-up solid vs haematological*	12	7	8 (67%)	6 (86%)		
Ali, 2021[46]	Median (IQR) duration of symptoms *solid vs haematological*	NR	NR	1 (1-1.5)	1.5d (1-2)		Based on 11 participants total but not possible to determine in which group

Adverse events in cancer patients

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Mendelsohn, 2022[45]	Number of patients who	10	-	0 (0%)	-	-	Population was patients over 18yrs with solid tumour and underwent chemo in the last 6

	had an infection following FMT						months. FMT via colonoscopy (n=3) or upper endoscopy (n=7). Treatment before was vancomycin alone or in combination with other abx.
Mendelsohn, 2022[45]	Number of patients experiencing fever following FMT	10	-	4 (40%)	-	-	Fever developed after two weeks and none thought related to FMT
Mendelsohn, 2022[45]	Number of patients experiencing other side effects after FMT	10	-	2 (20%)	-	-	All side effects were mild and self-limited and included abdominal pain/cramping, constipation, diarrhoea, back ache, malaise, toothache (related to upper endoscopy), gas
Ali, 2021[46]	Number of patients who experienced adverse events	19	-	3 (16%)	-	-	Response defined as absence of diarrhoea and no recurrence for 8 weeks. Recurrence defined as initial response and return of symptoms w/ positive CDI test. FMT was 25g fresh stool in 250ml saline, frozen and thawed, delivered to caecum via colonoscopy. Patients given colon cleansing and instructed to take 4mg loperamide before FMT. Three patients who had no response: 2x had persistent diarrhoea but negative CDI test, one responded initially but recurrent CDI four days after FMT after using abx. Authors conducted a case control study comparing different risk factors – all NS but very small sample size. Cancer type, treatment, state of the disease, use of abx and immunosuppressants, age – all NS Abdominal pain and nausea only adverse events. Two patients died (one in each group but not due to FMT: one due to failed FMT + septic shock due

							to pneumonia and cancer progression and one due to liver failure)
Ali, 2021[46]	Number of patients who experienced adverse events *solid vs haematological*	12	7	2 (17%)	1 (14%)	-	

Effectiveness cancer vs no cancer patients

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Alghamdi, 2019[19]	Number of patients with history of cancer *Successful vs failed*	27	2	6 (22%)	2 (100%)	p=0.0690	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Peri, 2019[21]	OR failure at 30d *ECOG status*	49	191			UV: OR=NR, p=0.144 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d ECOG = Eastern Cooperative Oncology Group There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate

Pringle 2019[40]	Proportion of patients with cancer *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.84 [0.79-4.28] p=0.16 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

QoL

No studies

Post-transplant patients

Effectiveness in post-transplant patients

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Cheng, 2019[47]	No. of patients achieving primary cure at 1month	94	-	60 (63.8%)	-	-	Transplant patients. Cure was defined as resolution of diarrhoea or negative test or both and no further need for CDI treatment after 1 FMT up to 1 month Some risk factors for failure included non-CDI abx at FMT, fresh stool FMT, presence of pseudomembranes and severe CDI
Cheng, 2019[47]	No. of patients achieving primary cure at 3 months	92	-	54 (58.7%)	-	-	Transplant patients. Cure was defined as resolution of diarrhoea or negative test or both and no further need for CDI treatment after 1 FMT up to 3 months. Two patients loft to follow-up
Cheng, 2019[47]	No. of patients achieving	92	-	84 (91.3%)	-	-	Transplant patients. Cure was defined as resolution of diarrhoea or negative test or both and no further need for CDI treatment after one or more FMT up to 3 months. Two patients loft to follow-up

	cure at 3 months						

Adverse events in post-transplant patients

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Cheng, 2019[47]	No. of patients experiencing any adverse events	94	-	21 (22.3%)	-	-	Transplant patients. Most included nausea, abdominal pain, abdominal cramping, and/or loose stools and resolved within one week. 3/21 patients had recurrent CMV
Cheng, 2019[47]	No. of patients experiencing severe adverse events	94	-	3 (3.2%)	-	-	Transplant patients. Severe events were severe diarrhoea requiring hospitalisation, fever, AKI. There were also three deaths but not related to FMT
Cheng, 2019[47]	No. of patients experiencing worsening of IBD	16	-	4 (25%)	-	-	Transplant patients, based on 16 patients with an underlying IBD
Cheng, 2019[47]	No. of patients experiencing bacteraemia	94	-	0 (0%)	-	-	Transplant patients.

Effectiveness post-transplant patients vs no transplant

No studies

QoL

No studies

Patients with liver disease

Effectiveness in patients with liver disease

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Cheng 2021[48]	No. of patients achieving cure with one FMT at 8 weeks	63	-	54/63 (86%)	-	-	Follow up was 12 weeks but success was defined as symptom improvement and no occurrence within 8 weeks. Different types of FMT were given but most patients had colonoscopy, frozen stool and mostly from unrelated donor. Authors looked at different risk factors for failure and identified the use of non-CDI abx at FMT, use of probiotics before FMT as risk factors.
Cheng 2021[48]	No. of patients achieving cure with one FMT at 8 weeks *Severe/fulminant vs recurrent*	55	8	48 (85.7%)	6 (75%)	NR	
Cheng 2021[48]	No. of patients achieving cure with one or more FMT	62	-	62/63 (98.4%)	-	-	

Adverse events in patients with liver disease

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Cheng, 2021[48]	No. of patients with at least one adverse event	63	-	30 (47.6%)	-	-	Follow up was 12 weeks but success was defined as symptom improvement and no occurrence within 8 weeks.
Cheng, 2021[48]	No. of patients with AE related to FMT	63	-	19 (30.2%)	-	-	
Cheng, 2021[48]	No. of patients with FMT-related pain or cramping	63	-	10 (15.9%)	-	-	
Cheng, 2021[48]	No. of patients with FMT-related diarrhoea	63	-	9 (14.3%)	-	-	
Cheng, 2021[48]	No. of patients with AE not related to FMT	63	-	11 (14.3%)	-	-	
Cheng, 2021[48]	No. of patients with serious FMT-related AE	63	-	5 (7.9%)	-	-	hospitalizations for Crohn's disease flare, fecal urgency, AKI/dehydration post-procedure, hepatic encephalopathy, portal hypertensive bleed

Cheng, 2021[48]	No. of patients with serious not FMT-related AE	63	-	6 (9.5%)	-	-	

Effectiveness liver disease vs no liver disease

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Meighani 2020[49]	No of patients who responded to at least one FMT had no recurrence within 90d	14	187	12 (87%)	164 (88%)	p=0.68	Patients with CLD included those with liver cirrhosis, chronic hepatitis C infection, non-alcoholic steatohepatitis, or metabolic liver disease Recurrent is had at least one CDI episode recurrent within a year, refractory is had no response to 5d abx treatment. All patients given vancomycin before referred for FMT. FMT administered fresh via colonoscopy, retention enema or NG tube, donors mostly family members, from universal donors if could not identify a suitable family member. Can't collect the data from table 2 – these are only for people who had a successful FMT Reported in conclusion that FMT safe but no mention of adverse events (or lack of) anywhere.
Pringle 2019[40]	Proportion of patients with cirrhosis *One dose FMT vs 2-3 FMT needed*	NR	NR	2.7%	22.6%	ORu 10.65 [3.31–34.27] p<0.0001 ORm 18.24 [3.18-	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis

						104.89], p<0.001	
Pringle 2019[40]	Proportion of patients receiving cure with 1-3 FMT doses *Cirrhotic vs non-cirrhotic*	14	211	92.9%	94.2%	p=0.84	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed.
Pringle 2019[40]	Proportion of patients with non-cirrhotic liver disease *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 0.94 [0.27-3.34] p=0.93 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis
Vaughn 2022[38]	Proportion of patients w/ decompensated liver disease *successful vs recurred*	227	41	2.2%	2.4%	p=0.90	Recurred = recurred within 2 months – primary failure excluded

QoL

No studies

Patients with kidney disease

Effectiveness

No studies

Adverse events in patients with kidney disease

No studies

Effectiveness compared to general population

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients with ESRD *Successful vs failed*	27	2	5 (18.5%)	2 (100%)	p=0.0517	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Terveer, 2020[23]	Number of patients with severe kidney comorbidity *relapsed vs cured within 2m*	13	112	1 (8%)	24 (9%)	OR 1 [0.1-8.2], p=1.0	
Vaughn 2022[38]	Proportion of patients on dialysis *successful vs recurred*	227	41	1.3%	12%	p=0.02 multivariate OR for failure 9.4 [2.0-43.8]	Recurred = recurred within 2 months – primary failure excluded
Pringle 2019[40]	Proportion of patients with CKD *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.10 [0.45-2.71] p=0.84 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Adverse events kidney disease vs no kidney disease

No studies

QoL

No studies

Patients with diabetes mellitus

Effectiveness

No studies

Effectiveness compared to general population

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients with diabetes *Successful vs failed*	27	2	7 (26%)	1 (50%)	p=0.4828	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Weingarden, 2022[39]	Proportion of patients w/ DM *successful vs failed*	168	67	22 (13.1%)	10 (14.9%)	multivariate OR for success: 0.879 (0.156–4.944), p=0.883	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Pringle 2019[40]	Proportion of patients with DM	NR	NR	NR	NR	ORu 1.61 [0.61-4.27]	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis

	One dose FMT vs 2-3 FMT needed					p=0.33 ORm NT	ORm – multivariate analysis NT – not tested in multivariate analysis

Adverse events

No studies

QoL

No studies

Patients with cardiovascular disease

Effectiveness in patients with cardiovascular disease

No studies

Adverse events in patients with cardiovascular disease

No studies

Effectiveness patients with cardiovascular disease vs no cardiovascular disease

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Weingarden, 2022[39]	Proportion of patients w/ CVD *successful vs failed*	168	67	61 (36.3%)	22 (32.8%)	multivariate OR for success: 1.616 (0.384–6.807), p=0.513	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

Adverse events

No studies

QoL

No studies

Patients with urinary tract infections

Effectiveness in patients with urinary tract infections

No studies

Adverse events

No studies

Effectiveness patients with urinary tract infections vs no urinary tract infections

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Terveer, 2020[23]	Number of patients with history of rUTI *relapsed vs cured within 2m*	13	113	0 (0%)	9 (8%)	p=0.60	

Adverse events

No studies

QoL

No studies

Patients with COVID-19 infection

Effectiveness in patients with COVID-19

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Boicean, 2023[50]	No of patients with improved symptoms and no relapse in 8 weeks	46	40	45 (98%)	23 (58%)	p=0.0001	Patients who had 1st episode CDI and moderate to severe COVID-19. I: abx + FMT, C: abx only. Abx were vancomycin with metronidazole if needed in both groups. FMT group had abx stopped 24hr before the procedure. FMT was via ileoscopy, fresh from related donor, patients given intestinal lavage with 4 L of PEG a day before. Significantly more patients were given metronidazole in control group. All patients characteristics, disease severity and symptoms were similar in both groups. Only one FMT given. Length to no abdominal pain not defined. Calculated from tbl 3 from no of patients who relapsed
Boicean, 2023[50]	No of patients with no abdominal pain after treatment	46	40	42 (91%)	7 (17.5%)	p=0.0001	Comparing patients who had 1st episode CDI and moderate to severe COVID-19. I: abx + FMT, C: abx only. Abx were vancomycin with metronidazole if needed in both groups. FMT group had abx stopped 24hr before the procedure. FMT was via ileoscopy, fresh from related donor, patients given intestinal lavage with 4 L of PEG a day before. Significantly more patients were given metronidazole in control group. All patients characteristics, disease severity and symptoms were similar in both groups. Only one FMT given. Length to no abdominal pain not defined.

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Boicean, 2023[50]	No of patients with adverse events	46	NR	0 (0%)	-	-	Comparing patients who had 1st episode CDI and moderate to severe COVID-19. I: abx + FMT, C: abx only. Abx were vancomycin with metronidazole if needed in both groups. FMT group had abx stopped 24hr before the procedure. FMT was via ileoscopy, fresh from related donor, patients given intestinal lavage with 4 L of PEG a day before. Significantly more patients were given metronidazole in control group. All patients characteristics, disease severity and symptoms were similar in both groups. Only one FMT given. Length to no abdominal pain not defined. Authors reported that they observed no adverse events (reported for intervention group only)

Effectiveness in patients with COVID-19 vs no COVID-19

No studies

Adverse events in patients with COVID-19 vs no COVID-19

No studies

QoL

No studies

Patients with other conditions

Effectiveness in patients with other conditions

No studies

Adverse events in patients with other conditions

No studies

Effectiveness compared to general population

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Diverticular disease							
Alghamdi, 2019[19]	Number of patients with diverticulitis *Successful vs failed*	27	2	5 (18.5%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Tariq, 2021[22]	Number of patients w/ diverticulosis *successful vs failed*	70	70	17 (24.2)	12 (17.1)	p=0.2	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Gastrointestinal disease							
Weingarden, 2022[39]	Proportion of patients w/ GI	168	67	58 (34.5%)	22 (32.8%)	multivariate OR	Successful defined as initial success and no recurrence during follow-up (length not reported

	disease *successful vs failed*					for success: 0.124 (0.026–0.589), p=0.009	but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Cognitive impairment							
Vaughn 2022[38]	Proportion of patients w/ cognitive impairment *successful vs recurred*	227	41	7.5%	7.3%	p=0.90	Recurred = recurred within 2 months – primary failure excluded
Neuro-muscular or neurological impairment							
Vaughn 2022[38]	Proportion of patients w/ neuromuscular impairment *successful vs recurred*	227	41	11%	22%	p=0.05 multivariate OR for failure: 1.08 [0.69-4.4]	Recurred = recurred within 2 months – primary failure excluded
Weingarden, 2022[39]	Proportion of patients w/ neurologic disease *successful vs failed*	168	67	19 (11.3%)	11 (16.4%)	p=0.287 multivariate OR for success: 8.012 (1.041–61.684), p=0.046	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Mood disorders							

Weingarden, 2022[39]	Proportion of patients w/ mood disorders *successful vs failed*	168	67	23 (37.5%)	23 (34.3%)	multivariate OR for success: 1.195 (0.371–3.854), p=0.681	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

Adverse events other conditions vs no other conditions

No studies

QoL

No studies

Patients with multiple comorbidities

Effectiveness in people with comorbidities

No studies

Adverse events for patients with multiple comorbidities

No studies

Effectiveness multiple comorbidities vs no comorbidities

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Charlson Comorbidity Index							
Kachlikova, 2020[20]	Median (min max) CCI score *successful vs failed*	45	15	5 (3-6)	7 (6–9)	Multivariate OR for CCI >7 7.0 [1.5–30.6], p<0.05	All FMT given by retention enema

Niccum 2018[51]	No of patients with successful FMT *Charlson comorbidity index*	NR	NR	NR	NR	Adjusted Cox regression for recurrence: HR= 1.4, [1.1–1.9], p= 0.011	All patients received FMT via colonoscopy Success was defined as responded to FMT and no recurrence within 90d. not possible to know the cut-off point for CCI
Raghu Subramanian, 2020[37]	Number of patients w/ CCI >5 early fail vs no early fail (cured + late fail)	2	18	1 (50%)	7 (39%)	-	Late fail = initially cured but failed after 1 month CCI = Charlson comorbidity index
Raghu Subramanian, 2020[37]	Number of patients w/ CCI >5 fail vs no fail	6	14	2 (33%)	6 (43%)	-	No fail = cured after one FMT with no recurrence CCI = Charlson comorbidity index
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT *Charlson morbidity index 3 or more vs <3*	14	6	9 (64.3%)	6 (100%)	p=0.26	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.
Comorbidities							
Urbonas, 2021[44]	Proportion of patients with	48	12	40 (83.3%)	10 (83.3%)	p=1.00	

	comorbidities *responded vs not responded*						
Lynch 2019[52]	Number of patients who recovered	48	44	43 (90%)	36 (82%)	p=0.29	Comparing 0-1 comorbidities vs more than one. FMT via colonoscopy, fresh stool, all recipients received bisacodyl

Adverse events patients with multiple comorbidities vs not multiple comorbidities

No studies

QoL

No studies

Additional data from excluded studies

Author	Findings
Quality of life	
Hammeken, 2022[53]	This is a follow up of the RCT by Hvas,[1] which included patients who had a recurrence of CDI after being assigned to the RCT group and given treatment. As per protocol, all failed patients were given rescue FMT. This included 13 treated with vancomycin, 12 treated with fidaxomicin and 3 treated with FMT. Health related quality of life (HrQoL) was measured using EQ-5D-3L scale ranging from 0 to 1. At the time of recurrence, the health related quality of life (HrQoL) for untreated patients (n=64) was 0.675. At week 8, the value increased to 0.813 (p<0.001) and at week 26, the value slightly decreased but was still significantly higher than at baseline 0.773 (p=0.003)
Mortality	
Cold 2022[54]	Retrospective cohort but long-term outcomes reported as case series: patients with recurrent or refractory given bacterial therapy or FMT. 145 patients received FMT via colonoscopy, enema or stoma. 24 received FMT from a family donor. Median follow-up was 603 days. There were no differences in mortality.
Mortality (severe, refractory or fulminant CDI)	
Hocquart, 2018[55]	A retrospective cohort of CDI patients who did or did not undergo FMT, authors also undertook a nested case control study for 3-month mortality. Significant predictors of mortality were 027 ribotype and severe CDI. FMT was a protective factor OR 0.13 [95% CI, 0.04–0.44], p=0.001. After stratifying FMT prevented mortality in severe cases (OR, 0.08 [95% CI 0.016–0.34], p=0.001) but not in non-severe cases (OR 1.07 [95% CI, 0.02–56.3], p=0.97

Cheng, 2020[56]	A before-after study which investigated the effect of introducing FMT for treatment of C Diff. The authors reported that the incidence of CDI-related mortality decreased from 10.2% to 4.4% (p=0.02), for patients with fulminant CDI from 21.3% to 9.1% (p=0.015) and for patients with refractory SFCDI, 43.2% to 12.1% (p<0.001). FMT also reduced the need for CDI-related colectomy in patients with SFCDI 6.8% to 2.7% (p=0.041), in patients with fulminant CDI (15.7% to 5.5% p=0.017), and patients with refractory SFCDI (31.8% to 7.6%; p=0.001).
Tixier, 2019[57]	A retrospective study with matched controls which included 48 patients with severe or fulminant CDI who required care in ICU. The authors reported that patients who received FMT (n = 16) had a 77% decrease in odds for mortality (OR 0.23, 95% CI 0.06-0.97) compared to those who received abx only.
Long-term effectiveness	
Saha 2021b[58]	Case series study. Reporting 374 patients who underwent FMT (colonoscopy, frozen) and were followed up. The aim was to establish the durability of FMT and risk factors for subsequent CDIs. All patients were exposed to at least one of the following risk factors: comorbidities (IBD, chronic liver disease, dialysis-dependent kidney disease, cancer), healthcare exposure, and use of systemic antibiotics or acid suppressant medications. Patients followed up to a year 53 (21.9%) patient had CDI recurrence within one year with a median time until CDI 119 days (min-max 7–338) after FMT. The only significant risk factor for CDI recurrence was exposure to non-CD antibiotics (HR 0.27 [0.15–0.48], p<0.001). other risk factors (age, sex, PPI use, exposure to healthcare, cancer, chronic liver disease, IBD, being on dialysis) were not significant.
Saha, 2021[59]	Reports long term efficacy and adverse events following FMT. Up to 1 year: the proportion of patients with recurrent CDI increased with time: 0.9% at 1 week, 4% at 1 month, 6.2% at 6 months, 9.5% at 1 year
Perler, 2020[60]	Case series study reporting 207 patients available for follow up at least 6 months after FMT. 31 had FMT w/ oral capsules, the rest were colonoscopy. Age at FMT was 18 to 95y. follow up was 6-84 months, median 30 months. 6 month cure was 177/207 (85.5%). Of 30 patients who experienced recurrence, 20 were successfully treated with more FMTs and 9 with vancomycin alone or w/ combination. Further 20 patients experienced CDI after 6 months. A total of 100 patient reported using abx for CDI-non related infections with 11 subsequently developing CDI, 51/100 patients reported prophylactics to prevent CDI. Another cohort was 52 patients who died post-FMT – none of the deaths were related to FMT, there appeared to be two recurrences.
Shin, 2019[61]	Retrospective cohort. Authors report two cohorts of patients w/ recurrent CDI and who were eligible for FMT. The first cohort (n=52) underwent FMT while the second cohort (n=25) did not. Reason for not doing FMT was apparently resolved CDI, not following up in a patient clinic, preference for no FMT and other. After 12 months, where patient data were available, 12.5% experienced recurrence of CDI in FMT group and 29.2% in non-FMT group. It was also reported that 6/25 (24%) of the non-FMT eventually underwent FMT. The authors reported that the self-reported improvement at one, three and twelve months was higher in the FMT group than in non-FMT group

Terveer, 2020[23]	Study reported 129 patients who underwent FMT. Initial success was 116/129 (89.9%) defined as cure and no relapse in the first 2 months. Follow up was for median follow up was 42 months (min-max 19-143 weeks). Of 84 patients who were still alive after a long-term follow-up (over 57 weeks), 61 (73%) had a sustained cure. Self-reported defecation pattern long-term post FMT compared to CDI episode: improved: 38% (25/65), similar 46% (30/65), deteriorated 15% (10/65).
Lee, 2019[62]	Case series study reporting patients who underwent FMT and were available for follow-up 6-24 months after. Reported 23 patients, none of whom reported recurrence or new episode of CDI, 12 of these patients received abx for various not CDI related infections and 9/23 received probiotics.
Incidence of asymptomatic carriage	
Allegretti, 2018[63]	Describes asymptomatic carriage after FMT. Total 167 patients underwent FMT. At week 1, 144 were asymptomatic and 141/144 (97.9%) asymptomatic were negative for CDI. At 4 weeks, 129 were asymptomatic and 125/129 (96.9%). Thus, asymptomatic carriage rare.
Onset of new diseases or worsening of old conditions	
Cold 2022[54]	Retrospective cohort but long-term outcomes reported as case series: patients with recurrent or refractory given bacterial therapy or FMT. Only FMT data extracted. 145 patients received FMT via colonoscopy, enema or stoma. 24 received FMT from a family donor. Median follow-up was 603 days. Onset of new diseases up to five years included: cancer x 8, MDRO (up to six months) x7 (3x in a first month), DM x4, hypertension x3, IBD (Crohn's) x1.
Saha, 2021[59]	Reports long term efficacy and adverse events following FMT. Up to 1 year: constipation increased: 19% at 1 week, 33% at 1 year – most did not need treatment Other symptoms: urgency (approx. 46% rate throughout the year), cramping (50% patients reported to experience this at least once up to 1 year) – most did not need treatment, incidence of IBS up to 1 year 16.9% Risk factors: On multivariable analysis, the presence of IBD, dialysis-dependent kidney disease, and multiple FMTs were significantly associated with the risk of developing diarrhea 2 years after FMT, new conditions: weight gain median 30 pounds min-max 10-70 pounds (10.3%), DM (3%), dyslipidaemia (3%), thyroid problems (2.3%), GI problems (13.4%), serious infections (11.8% including CDI, pneumonia, sepsis and UTI). Nine patients reported life threatening diseases but approx. 20m after FMT thus considered unlikely due to transplant. Some risk factors identified for conditions but not multivariate analysis – also difficult to establish whether these were due to FMT: age for IBD, female sex for IBS, age, cancer and depression for chronic diarrhoea and pre-existing IBS and depression for constipation
Perler, 2020[60]	Case series study reporting 207 patients available for follow up at least 6 months after FMT. 31 had FMT w/ oral capsules, the rest were colonoscopy. Age at FMT was 18 to 95y. follow up was 6-84 months, median 30 months. There were 143 new conditions at follow up after 143 – most were acute and infectious episodes not related to FMT. Chronic conditions included IBS (n=10), pancreatic insufficiency (n=1), intestinal overgrowth (n=3), GERD (n=1), colon resection due to IBD (n=1), UC requiring colectomy (n=1), MI (n=2), hypertension (n=1), congestive heart failure (n=1), AF (n=1), hyperlipidaemia (n=1), valve replacement (n=1). Worsening of chronic conditions: 10 IBD, 1 RA

Terveer, 2020[23]	Study reported 129 patients who underwent FMT. Initial success was 116/129 (89.9%) defined as cure and no relapse in the first 2 months. Follow up was for median follow up was 42 weeks (min-max 19-143 weeks). Of 84 patients who were still alive after a long-term follow-up: Nausea 18% (13/73); Abdominal pain 21% (15/71); Diarrhoea 33% (24/73). No definitely or probably related serious adverse events were reported.
Lee, 2019[62]	Case series study reporting patients who underwent FMT and were available for follow-up 6-24 months after. Reported 23 patients, 21/23 reported weight gain up to 19kg and 2 reported weight loss (9 and 20kg). 8/23 had new diagnosis breast cancer, osteoarthritis, stage 4 osteoporosis, TIA, RA, hypertension (all n=1) IBS (n=2).
Dawwas, 2022[64]	A retrospective cohort study which reviewed the records of 1165 patients who underwent FMT for CDI and 3692 who were given 1 or 2 abx only. All patients had at least 12 months of follow up data available with longest follow up of 2.34 years. The outcome was the diagnosis of new conditions. Found that the incidence of IBD, RA, psiorasis, DM, hypertension, stroke or IBS was similar in both groups. There was a slightly higher incidence of MI in FMT group compared to no FMT (aHR 1.68/1000p/year [1.01–2.81], p value NR.
Tabaa, 2018[36]	Follow up of patients (median 25 months) with CDI w/ or w/o IBD. New diagnoses were basal cell carcinoma (x1), dysphagia (x1), Schatzki ring (x1), CAP (x1), partial large bowel obstruction (x1), shingles (x1), carpal tunnel syndrome (x1), hospitalisation for colonic decompression (x1), more sensitivity to gas-provoking foods (x1)
Ooijevaar, 2021[65]	A ten-year follow up of patients to assess long-term safety of FMT. The authors reported that there were no new diagnoses of autoimmune diseases, GI disorders or malignancies. After ten years 7/34 patients were still alive and none of the deaths were attributed to FMT.
Resolution or improvement of other chronic conditions	
Cold 2022[54]	Retrospective cohort but long-term outcomes reported as case series: patients with recurrent or refractory given bacterial therapy or FMT. Only FMT data extracted. 145 patients received FMT via colonoscopy, enema or stoma. 24 received FMT from a family donor. Median follow-up was 603 days. Disappearance of disease: MDRO in six months x2, hypertension in 5 years x2,
Perler, 2020[60]	Case series study reporting 207 patients available for follow up at least 6 months after FMT. 31 had FMT w/ oral capsules, the rest were colonoscopy. Age at FMT was 18 to 95y. follow up was 6-84 months, median 30 months. Improvement of chronic conditions: 10 IBS, 4 IBD, 1 alopecia areata (hair started regrowing).
Lee, 2019[62]	Case series study reporting patients who underwent FMT and were available for follow-up 6-24 months after. Reported 23 patients, 7/23 reported resolution or improvement of undifferentiated colitis (n=1), CD (n=2), UC (n=1), DM2 (n=1 – discontinued oral medication), Parkinson's (n=2 – improved mobility.

Recipient factors (section 4.2)

Demographic factors

Age

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Median (range) age at follow up *Successful vs failed*	27	2	64.4 (20)	77.5 (1.4)	p=0.3752	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Kachlikova, 2020[20]	Median (min-max) age *successful vs failed*	45	15	75 (70-82)	72 (58–80)	Multivariate OR for age 1.0 [0.9–1.0] p=0.607	All FMT given by retention enema Age threshold not specified
Peri, 2019[21]	OR failure at 30d *age*	49	191	-	-	UV: OR=NR, p=0.001 MV: OR= 1.060 [1.025–1.097], p=0.001	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group Age not well defined – authors only mentioned that higher age was a risk factor UV=univariate, MV=multivariate
Tariq, 2021[22]	Median (min-max) age	70	70	54.8 (19-92)	53.8 (18.89)	p=0.9	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as

	successful vs failed						no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Mean (min-max) patient age at FMT *relapsed vs cured within 2m*	13	116	69 years (41–96)	70 years (2–92)	p=0.76	
Dogra, 2022[26]	Median (IQR) age at FMT *successful vs failed*	140	25	53 (32.8-72)	52 (33-71)	p=0.92	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT *Age 65 and older vs <65*	18	2	13 (72.2%)	2 (100%)	p=1.00	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.
Hirten 2019[28]	Mean (SD) age recurred vs not recurred	NR	NR	52 (23.1%)	53.5 (22.3)	p=0.79	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.

	within 2 months						
Hirten 2019[28]	Mean (SD) age recurred vs not recurred *within 6 months*	NR	NR	51.2 (22.4)	50.6 (23.1)	p=0.92	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Raghu Subramanian, 2020[37]	Age of the patient (SD)	EF: 2 LF: 4	14	EF: 65.5 (N/A) LF: 56.3 (23.5)	64 (16)	-	EF: early failure LF: late failure C: primary cure
Vaughn 2022[38]	Proportion of patients >65 *successful vs recurred*	227	41	47%	70%	p=0.007 Multivariate OR for failure: 0.92 [0.41-2.1]	Recurred = recurred within 2 months – primary failure excluded
Weingarden, 2022[39]	Median (IQR) age *successful vs failed*	168	67	65 (51–79)	66 (48–83)	multivariate OR for success: 1.015 (0.984–1.047), p=0.326	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Urbonas, 2021[44]	Mean (SD) age *responded vs not responded*	48	12	71.8 (12.9)	61.7(19.5)	p=0.124	This was a cohort of 60 patients with recurrent CDI divided into those who initially responded to FMT and those who did not. Authors reported that of 12 non-respondents, 10 responded after a second one and the remaining two after the third one.

							Followed up to 36 months (some patients died) but not reported if there was any recurrence. No cardiovascular or oncological diseases reported up to 36 months
Nivet, 2022[68]	Proportion of patients experiencing recurrence-free survival *very old vs adult*	19	39	86.9%	94.3%	p=0.44	Comparing very old vs adult patients. FMT was via colonoscopy, retention enema, rectoscopy, nasoduodenal tube or capsules, all frozen. All treated w/ vancomycin up to 48hrs before the procedure. All given 1L polyethylene glycol except those receiving retention enema and rectoscopy. Older patients were less likely to receive naso-duodenal FMT and more likely to receive enema and rectoscopy. There was no difference in the number of severe CDI between groups. There were four deaths in each group – none related to FMT
Nivet, 2022[68]	Proportion of patients experiencing relapse @52w *very old vs adult*	NR	NR	4 (23.5%)	5 (14.3%)	p=0.45	
Barberio, 2020[69]	Median (min-max) age of the patients *successful vs failed*	14	6	71y (22-87)	72.5y (70-86)	-	All patients underwent colonoscopy, with bowel prep (Macrogol), refeeding 6-8hrs after procedure and advice on no PPI or abx after procedure. 3 patients had an early failure and further 3 had symptom recurrence. Success defined as responded to FMT and no recurrence for 24months
Pringle 2019[40]	Age (older vs younger) *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.01 [0.99-1.04] p=0.17 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Impact on adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Nivet, 2022[68]	Proportion of patients experiencing adverse events (any)	19	39	7 (36.8%)	16 (41%)	p=0.45	Comparing very old vs adult patients. FMT was via colonoscopy, retention enema, rectoscopy, nasoduodenal tube or capsules, all frozen. All treated w/ vancomycin up to 48hrs before the procedure. All given 1L polyethylene glycol except those receiving retention enema and rectoscopy. Older patients were less likely to receive naso-duodenal FMT and more likely to receive enema and rectoscopy. There was no difference in the number of severe CDI between groups. There were four deaths in each group – none related to FMT Majority of adverse events were mild to moderate: diarrhoea, abdominal pain, vomiting, constipation occurring early or late after FMT
Nivet, 2022[68]	Proportion of patients experiencing severe adverse events	19	39	2 (10.5%)	2 (5.1%)	p=0.59	Comparing very old vs adult patients. FMT was via colonoscopy, retention enema, rectoscopy, nasoduodenal tube or capsules, all frozen. All treated w/ vancomycin up to 48hrs before the procedure. All given 1L polyethylene glycol except those receiving retention enema and rectoscopy. Older patients were less likely to receive naso-duodenal FMT and more likely to receive enema and rectoscopy. There was no difference in the number of severe CDI between groups. There were four deaths in each group – none related to FMT Severe events were: sepsis and IBD (not related to FMT) in very old group, sepsis and severe psychiatric collapse in adult

Nivet, 2022[68]	Death	19	39	4	4	-	Not related to FMT but 1 associated with FMT failure

Impact on QoL

No studies

Sex

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of males *Successful vs failed*	27	2	7 (26%)	1 (50%)	p=0.4828	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Dogra, 2022[26]	Proportion of males *successful vs failed*	140	25	58 (41.4)	10 (40.0)	p=1.00	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Kachlikova, 2020[20]	No of male patients *successful vs failed*	45	15	NR	NR	Multivariate OR for male sex 0.7 [0.2–3.3] p=0.687	All FMT given by retention enema, male sex significant in univariate analysis [OR=0.5 0.3–0.8], p< 0.05) but not multivariate
Peri, 2019[21]	OR failure at 30d *sex*	NR	NR	NR	NR	UV: OR=NR, p=0.546 MV: n/a – not	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d

						significa nt at UV	follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Raghu Subramanian, 2020[37]	Number of males early fail vs no early fail (cured + late fail)	2	18	0 (100%)	7 (39%)	-	Late fail = initially cured but failed after 1 month
Raghu Subramanian, 2020[37]	Number of males fail vs no fail	6	14	1 (17%)	6 (43%)	-	No fail = cured after one FMT with no recurrence
Terveer, 2020[23]	Proportion of males *relapsed vs cured within 2m*	13	116	3 (23%)	49 (42%)	OR 2.4 for success when female [0.6–9.3], p=0.24	
Urbonas, 2021[44]	Proportion of male patients *responded vs not responded*	48	12	21 (44%%)	6 (50%)	p=0.124	
Vaughn 2022[38]	Proportion of male patients *successful vs recurred*	227	41	28%	27%	p=0.90	Recurred = recurred within 2 months – primary failure excluded
Weingarden, 2022[39]	Proportion of males *successful vs failed*	168	67	47 (28.0%)	19 (28.4%)	multivari ate OR for success	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years).

						when female: 2.256 (0.520–9.788), p=0.277	Failure defined as no initial success or relapse at any time during the follow-up.
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT *Male vs female*	10	10	7 (70%)	8 (80%)	p=1.00	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 2 months *females vs males*	75	43	15 (20%)	8 (18.6%)	p=0.85	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 23/118 patients who experienced recurring CDI within 2 months
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 6 months *females vs males*	50	33	18 (36%)	13 (39.4%)	p=0.75	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 31/83 patients who experienced recurring CDI within 6 months
Pringle 2019[40]	Proportion of male patients *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.41 [0.66-2.99] p=0.37 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Impact on adverse events

No studies

Impact on QoL

No studies

Body mass index

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Mean (SD) BMI *Successful vs failed*	27	2	24 (6)	27 (1.4)	p=0.4938	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Weingarden, 2022[39]	Median (IQR) BMI *successful vs failed*	168	67	23.79 (20.37–27.46)	23.33 (19.92–29.3)	multivariate OR for success: 0.856 (0.754–0.970), p=0.015	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

Impact on adverse events

No studies

Impact on QoL

No studies

Factors associated with CDI

Number of CDI episodes before FMT

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Mean (SD) number of CDI episodes before FMT *Successful vs failed*	27	2	2.8 (0.95)	3.5 (0.7)	p=0.3195	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Barberio, 2020[69]	Median (min-max) number of CDI episodes *successful vs failed*	14	6	3 (2-5)	3.5 (3-5)	-	All patients underwent colonoscopy, with bowel prep (Macrogol), refeeding 6-8hrs after procedure and advice on no PPI or abx after procedure. 3 patients had an early failure and further 3 had symptom recurrence. Success defined as responded to FMT and no recurrence for 24months
Barberio, 2020[69]	Mean (SD) no. of CDI before FMT recurred vs not recurred *within 2 months*	NR	NR	3.7 (1.9)	3.5 (1.8)	p=0.60	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Kachlikova, 2020[20]	No of patients w/ 3 or more recurrences *successful vs failed*	45	15	NR	NR	Univariate OR= 1.1 [0.9–1.4] p=0.541	All FMT given by retention enema. NS at univariate, not taken to multivariate analysis

Peri, 2019[21]	OR failure at 30d *Number of recurrences*	49	191			UV: OR=NR, p=0.054 MV: OR= 1.477 [0.955-2.284], p=0.080	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Treveer, 2020[9]	Mean number of CDI relapses before FMT *relapsed vs cured within 2m*	13	114	2.6	2.8	p=0.69	
Urbonas, 2021[44]	Mean (SD) number of CDI episodes before FMT *responded vs not responded*	48	12	2.6 (1.3)	2.6 (1.3)	p=0.804	
Vaughn 2022[38]	Proportion of patients w/ 2 or more CDI recurrences in past year *successful vs recurred*	227	41	79%	95%	p=0.02 multivariate OR for failure 3.9 [0.89-17.3]	Recurred = recurred within 2 months – primary failure excluded
Hirten 2019[28]	Mean (SD) no. of CDI before FMT	NR	NR	3.7 (1.9)	3.5 (1.5)	p=0.62	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.

	recurred vs not recurred *within 6 months*						

Impact on adverse events

No studies

Impact on QoL

No studies

Number of CDI days from diagnosis to FMT

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Yoon, 2021[27]	Median number of days from CDI diagnosis to FMT *responded vs not responded*	15	5	15d	8d	p=0.044	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.

Impact on adverse events

No studies

Impact on QoL

No studies

Hospitalisation due to CDI

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients hospitalised due to CDI before FMT *Successful vs failed*	27	2	16 (59%)	2 (100%)	p=0.5123	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Vaughn 2022[38]	Proportion of patients w/ prior CDI hospitalisation *successful vs recurred*	227	41	34%	54%	p=0.02 multivariate OR for failure: 1.6. [0.76-3.3]	Recurred = recurred within 2 months – primary failure excluded

Impact on adverse events

No studies

Impact on QoL

No studies

Antibiotics used for treatment of CDI before FMT

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Number of antibiotic courses for CDI before FMT							
Weingarden, 2022[39]	Median (IQR) no of prior abx courses for CDI *successful vs failed*	168	67	4 (3–5)	4 (3–5)	multivariate OR for success: 0.683 (0.476–0.981), p=0.039	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Vancomycin use							
Alghamdi, 2019[19]	Number of patients previously treated with vancomycin *Successful vs failed*	27	2	26 (96.3)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Barberio, 2020[69]	Number of patients on vancomycin *successful vs failed*	14	6	7 (50%)	1 (17%)	p=0.2267 (MedCalc)	All patients underwent colonoscopy, with bowel prep (Macrogol), refeeding 6-8hrs after procedure and advice on no PPI or abx after procedure. 3 patients had an early failure and further 3 had symptom recurrence. Success defined as responded to FMT and no recurrence for 24months Before FMT, patients received vancomycin alone or vancomycin as well as metronidazole and/or fidaxomicin
Tariq, 2021[22]	Number of patients w/ 1	70	70	70 (100%)	69 (98.5%)	p=0.23	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by

	or more vancomycin courses before FMT *successful vs failed*						sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Metronidazole use							
Alghamdi, 2019[19]	Number of patients previously treated with w/ metronidazole *Successful vs failed*	27	2	24 (88.8%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Tariq, 2021[22]	Number of patients w/ 1 or more metronidazole courses before FMT *successful vs failed*	70	70	53 (75.7%)	43 (61.4%)	p=0.06 M: OR for failure: 1.68 [0.69-4.07]	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy

							Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Fidaxomicin use							
Pringle 2019[40]	Proportion of patients w/ prior fidaxomicin treatment *One dose FMT vs 2-3 FMT needed*	NR	NR	19.1%	35.5%	ORu 2.33 [1.04-5.22] p=0.04 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis
Tariq, 2021[22]	Number of patients w/ 1 or more fidaxomicin courses before FMT *successful vs failed*	70	70	9 (13%)	16 (22.8%)	p=0.12 M: OR for failure: 2.1 [0.72-6.09]	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria

Impact on adverse events

No studies

Impact on QoL

No studies

C. difficile strain

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Peri, 2019[21]	OR failure at 30d *Ribotype 027*	49	191			UV: OR=NR, p=0.766 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Terveer, 2020[23]	Number of patients with hypervirulent clade *relapsed vs cured within 2m*	8	65	2 (25%)	13 (20%)	OR 1.3 [0.2-7.4], p=0.66	
Kim 2019[41]	No of patients who responded to FMT *Hypervirulent strain vs not*	5	30	3 (60%)	27 (90%)	Multiple logistic regression for failure OR=13.8 [1.2-155] p=0.034	Patients received FMT via colonoscopy or NJ tube, all fresh.

Impact on adverse events

No studies

Impact on QoL

No studies

Healthcare-acquired CDI

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Kachlikova, 2020[20]	No of patients w/ HCAI-CDI *successful vs failed*	45	15	NR	NR	Univariate OR= 1.8 [0.3–17.0] p=0.795	All FMT given by retention enema. NS at univariate, not taken to multivariate analysis

Impact on adverse events

No studies

Impact on QoL

No studies

Effect of medication

On Proton Pump Inhibitors and other anti-secretory medications

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients on H2 blockers	27	2	5 (18.5%)	0 (0%)	p=0.1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks

	Successful vs failed						
Alghamdi, 2019[19]	Number of patients on PPI *Successful vs failed*	27	2	11 (40.7%)	0 (0%)	p=0.5195	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Dogra, 2022[26]	Proportion of patients w/ PPI use 90d prior to CDI *successful vs failed*	140	25	14 (10.0)	0 (0.0)	p=0.13	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Kachlikova, 2020[20]	No of patients on PPI *successful vs failed*	45	15	NR	NR	Univariate OR= 1.4 [0.8–2.6] p=0.290	All FMT given by retention enema. NS at univariate, not taken to multivariate analysis
Raghu Subramanian, 2020[37]	Number of patients using PPI early fail vs no early fail (cured + late fail)	2	18	1 (50%)	12 (67%)	-	Late fail = initially cured but failed after 1 month
Raghu Subramanian, 2020[37]	Number of patients using PPI fail vs no fail	6	14	4 (67%)	9 (64%)	-	No fail = cured after one FMT with no recurrence
Tariq, 2021[22]	Number of patients w/ antisecretory therapy before FMT	70	70	20 (28.7%)	27 (38.7%)	p=0.2	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M=

	successful vs failed						multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Number of patients with PPI use *relapsed vs cured within 2m*	13	116	8 (61%)	55 (51%)	OR 1.5 [0.5-5.0], p=0.47	
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 2 months *PPI vs no PPI*	46	72	12 (26.1%)	11 (15.2%)	p=0.16	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 23/118 patients who experienced recurring CDI within 2 months
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 6 months *PPI vs no PPI*	33	50	18 (54.5%)	13 (26%)	p=0.01	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 31/83 patients who experienced recurring CDI within 6 months
Pringle 2019[40]	Proportion of patients using PPI *One dose FMT vs 2-3 FMT needed*	NR	NR	33.3%	51.6%	ORu 2.13 [1.001-4.55] p<0.05 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Kim 2019[41]	No of patients who responded to FMT *PPI use vs no PPI*	9	26	7 (78%)	23 (88%)	NS	Data calculated from table 3. OR and significance not reported but NS Patients received FMT via colonoscopy or NJ tube, all fresh.

Impact on adverse events

No studies

Impact on QoL

No studies

Corticosteroids

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Pringle 2019[40]	Proportion of patients with steroid use *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 1.76 [0.73-4.23] p=0.21 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Impact on adverse events

No studies

Impact on QoL

No studies

Lactulose

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Pringle 2019[40]	Proportion of patients using lactulose *One dose FMT vs 2-3 FMT needed*	NR	NR	1.8%	9.7%	ORu 5.92 [1.26-27.83] p=0.02 ORm 0.38 [0.04-3.61], p=0.40	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis

Impact on adverse events

No studies

Impact on QoL

No studies

Probiotic use

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients using	27	2	2 (7.4%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks

	probiotics before FMT *Successful vs failed*						
Tariq, 2021[22]	Number of patients using probiotics before FMT *successful vs failed*	70	70	24 (34.2%)	18 (25.7%)	p=0.26	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria

Impact on adverse events

No studies

Impact on QoL

No studies

Non-CDI antibiotic use

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Dogra, 2022[26]	Proportion of patients on abx prior to CDI *successful vs failed*	140	25	60 (42.9)	7 (28.0)	p=0.19	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Terveer, 2020[23]	Number of patients who used non-CDI abx between CDI infections *relapsed vs cured within 2m*	13	113	6 (46%)	43 (38%)	OR 1.4 [0.4-4.4], p=0.57	
Pringle 2019[40]	Proportion of patients with Rifaximin use *One dose FMT vs 2-3 FMT needed*	NR	NR	NR	NR	ORu 3.04 [0.56-16.26] p=0.20 ORm NT	All patients treated w/ oral FMT, regime was 15 tables/d for two days. Abx treatment + repeat if needed. ORu – univariate analysis ORm – multivariate analysis NT – not tested in multivariate analysis

Impact on adverse events

No studies

Impact on QoL

No studies

Narcotics

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
Weingarden, 2022[39]	Proportion of patients w/	168	67	49 (29.2%)	26 (38.8%)	p=0.165	Successful defined as initial success and no recurrence during follow-up (length not reported

	baseline narcotics use *successful vs failed*						but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up. Univariate analysis.

Impact on adverse events

No studies

Impact on QoL

No studies

Other risk factors

Hospitalised at or before FMT

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Hospitalised at or before FMT							
Dogra, 2022[26]	Proportion of in-patients at FMT *successful vs failed*	140	25	19 (13.6)	9 (36.0)	p=0.02	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Tariq, 2021[22]	Number of hospitalised at FMT *successful vs failed*	70	70	26 (37.1%)	26 (37.1%)	p=1	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but

							some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Weingarden, 2022[39]	Proportion of patients w/ inpatient procedure *successful vs failed*	168	67	10 (5.95%)	9 (13.4%)	multivariate OR for success: 0.338 (0.033–3.513), p=0.364	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 2 months *hospitalised 90d before FMT vs not*	60	58	12 (20%)	11 (19%)	p=0.89	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 23/118 patients who experienced recurring CDI within 2 months
Hirten 2019[28]	Proportion of patients w/ recurred CDI within 6 months *hospitalised 90d before FMT vs not*	37	46	18 (48.6%)	13 (28.3%)	p=0.06	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data calculated from table 2 based on 31/83 patients who experienced recurring CDI within 6 months
Hospitalised before CDI							
Dogra, 2022[26]	Proportion of patients	140	25	38 (27.1)	8 (32.0)	p=0.63	Success defined as initial response and no recurrence at follow-up. All patients followed up

	hospitalised at least 90d prior to CDI *successful vs failed*						for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).

Impact on adverse events

No studies

Impact on QoL

No studies

Blood biomarkers

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Albumin							
Hirten 2019[28]	Mean (SD) albumin recurred vs not recurred *within 2 months*	NR	NR	3.2 (0.8)	3.5 (0.9)	p=0.14	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Hirten 2019[28]	Mean (SD) albumin recurred vs not recurred *within 6 months*	NR	NR	3.4 (0.8)	3.7 (0.7)	p=0.09	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Kachlikova, 2020[20]	Median (min-max) albumin (mg/L)	45	15	34.15 (26.77–39.15)	28.90 (25.30–32.72)	Multivariate OR for	All FMT given by retention enema

	successful vs failed					albumin OR=1.1 [1.0-1.2], p=0.170	Albumin threshold not specified, found significant difference in median albumin, but not significant in multivariate analysis
White blood cells/leukocytes							
Hirten 2019[28]	Mean (SD) WBC count recurred vs not recurred *within 2 months*	NR	NR	11.2 (5.7)	10.4 (10.6)	p=0.68	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Hirten 2019[28]	Mean (SD) WBC count recurred vs not recurred *within 6 months*	NR	NR	11.2 (7.0)	9.2 (11.1)	p=0.37	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Kachlikova, 2020[20]	Median (min-max) leukocytes (1000/ml) *successful vs failed*	45	15	10.21 (6.59–15.46)	7.48 (5.52–12.05)	NS	All FMT given by retention enema
Haemoglobin							
Hirten 2019[28]	Mean (SD) haemoglobin recurred vs not recurred *within 2 months*	NR	NR	10.5 (2.3)	11.6 (1.8)	p=0.10	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.
Hirten 2019[28]	Mean (SD) haemoglobin recurred vs	NR	NR	10.8 (2.1)	12.0 (1.7)	p=0.02	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.

	not recurred *within 6 months*						
C-Reactive Protein							
Kachlikova, 2020[20]	Median (min-max) CRP (mg/L) *successful vs failed*	45	15	44.14 (6.54–119.50)	47.30 (5.62–111.00)	NS	All FMT given by retention enema
Zinc							
Niccum 2018[51]	No of patients with successful FMT *zinc deficiency*	31	49	26 (84%)	46 (94%)	Unadjusted Kaplan-Mayer: p=0.097 Adjusted Cox regression for recurrence: HR= 11.3 [2.2–59.3] p= 0.004	Comparing patients with zinc deficiency vs no deficiency. Patients identified by screening notes for those who had zinc status checked within 90d before FMT. Cut-off for zinc deficiency was 0.66ug/ml. All patients received FMT via colonoscopy Success was defined as responded to FMT and no recurrence within 90d.
Niccum 2018[51]	No of patients with successful FMT *zinc supplements*	25	6	2 (8%)	3 (50%)	Adjusted Cox regression for recurrence: HR= 0.12,	All patients received FMT via colonoscopy Success was defined as responded to FMT and no recurrence within 90d. 25/31 of those deficient received supplementation

						[0.02–0.74], P=0.022	

Impact on adverse events

No studies

Impact on QoL

No studies

Other risk factors

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
White race							
Vaughn 2022[38]	Proportion of white race patients *successful vs recurred*	227	41	93%	93%	p>0.90	Recurred = recurred within 2 months – primary failure excluded
High-risk population							
Kim 2019[41]	No of patients who responded to FMT *High risk vs not*	25	10	20 (80%)	10 (100%)	NS	High risk included working in healthcare setting (e.g. hospital, rehabilitation centre, nursing home) or family member with CDI Data calculated from table 3. OR and significance not reported but NS Patients received FMT via colonoscopy or NJ tube, all fresh.
Microbiome composition in recipient's stool							
Yoon, 2021[27]	Microbiome composition of recipient	15	5	Firmicutes & Bacteroidetes 43.3%;	Firmicutes & Bacteroidetes 33.0%;	p=0.001	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis

	stools before FMT *responded vs not responded*			Proteobacteria & Fusobacteria 55.4%	Proteobacteria & Fusobacteria 66%		patients. Most donors were family members of the recipients but not all.
Previous FMT in the last 12 months							
Vaughn 2022[38]	Proportion of patients w/ prior FMT recurrences in past year *successful vs recurred*	227	41	12%	15%	p=0.70	Recurred = recurred within 2 months – primary failure excluded
Number of risk factors							
Barberio, 2020[69]	Median (min-max) risk factors for relapse *successful vs failed*	14	6	2 (0-3)	2.5 (0-4)	-	All patients underwent colonoscopy, with bowel prep (Macrogol), refeeding 6-8hrs after procedure and advice on no PPI or abx after procedure. 3 patients had an early failure and further 3 had symptom recurrence. Success defined as responded to FMT and no recurrence for 24months Risk factors included age, immunosuppression, female sex, comorbidities and others (not specified)

Impact on adverse events

No studies

Impact on QoL

No studies

Donor factors (section 4.3)

Related vs not related donor

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Lynch 2019[52]	Number of successful FMT	First degree: 40 Second degree: 8 Other: 27 Spouse: 14		First degree: 35 (88%) Second degree: 7 (88%) Other: 23 (85%) Spouse: 12 (86%)		p=0.99	Comparing different types of donors. Outcome based on the number of procedures not number of patients FMT via colonoscopy, fresh stool, all recipients received bisacodyl
Tariq, 2021[22]	Type of donor stool *successful vs failed*	70	70	Family: 8 (11.4%) Standard: 62 (88.5%)	Family: 5 (7.1%) Standard: 65 (92.8%)	p=0.38	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Watts, 2022[24]	Type of donor *family vs universal*	13	89	NR	NR	Multivariate OR for failure from family	Incidence cases not reported but 13 were family donation and the rest from the faeces bank. Authors also reported that universal donor testing was more robust

						donor 4.13 [1.00, 17.01], p=0.049)	

Impact on adverse events

No studies

Impact on QoL

No studies

Age of the donor

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Yoon, 2021[27]	Mean age (years) of a donor *Responded vs not responded*	15	5	45y	47y	p=0.793	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.
Terveer, 2020[23]	Mean (min-max) donor age at donation *relapsed vs cured within 2m*	13	116	36 years (24–46)	35 years (24–46)	p=0.82	

Impact on adverse events

No studies

Impact on QoL

No studies

Sex of the donor

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Terveer, 2020[23]	Proportion of donor females *relapsed vs cured within 2m*	13	116	7 (54%)	58 (50%)	OR 1.2 [0.4-3.7], p=0.79	
Terveer, 2020[23]	Proportion of donor/patient sex mismatch *c relapsed vs cured within 2m*	13	116	5 (39%)	54 (47%)	OR 0.7 [0.2-2.3], p=0.58	

Impact on adverse events

No studies

Impact on QoL

No studies

Amount of stool produced

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Yoon, 2021[27]	Proportion of patients responding to therapy *Stool volume 100g or over vs <100g*	13	7	10 (76.9%)	5 (71.4%)	p=1.0	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.

Impact on adverse events

No studies

Impact on QoL

No studies

Microbiome composition of the donor

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Microbiome composition of donor stool							
Yoon, 2021[27]	Microbiome composition of donor stools responded vs	15	5	Firmicutes & Bacteroidetes 84.5%; Proteobacteria &	Firmicutes & Bacteroidetes 89.6%; Proteobacteria &	p=1.0	

	nor responded			Fusobacteria 7.6%	Fusobacteria <1%		

Impact on adverse events

No studies

Impact on QoL

No studies

Preparation factors (section 4.4)

Fresh vs frozen stool

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Alghamdi, 2019[19]	Stool type *Successful vs failed*	27	2	Fresh: 17 (63%) Frozen: 10 (37%)	Fresh: 0 (0%) Frozen: 2 (100%)	p=0.1626	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
McCune 2020[29]	No of patients with resolution of diarrhoea within 7 days frozen vs fresh	87	31	74 (85%)	25 (81%)	p=0.57	Based on patients who were alive after 7 days and available for follow up. Total were 124 patients but 3x lost to follow up, 2x died (1x colon cancer and 1x perforated viscous and CDI presumed non-response to treatment) and 1x excluded as received abx at the same time
McCune 2020[29]	No of patients with no recurrence of diarrhoea within 90	60	25	45 (75%)	21 (84%)	p=0.36	Based on patients who responded to therapy with one or more FMT and survived until d90

	days frozen vs fresh						
Peri, 2019[21]	OR of failure at 30d *frozen*	49	191	UV: OR=NR, p=0.283 MV: n/a – not significant at UV			Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT	7	13	5 (71.4%)	10 (77.0%)	p=1.00	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all. Frozen vs fresh
Barberio, 2020[69]	Number of patients with successful FMT *Frozen vs fresh*	11	9	8 (73%)	6 (67%)	-	All patients underwent colonoscopy, with bowel prep (Macrogol), refeeding 6-8hrs after procedure and advice on no PPI or abx after procedure. 3 patients had an early failure and further 3 had symptom recurrence. Success defined as responded to FMT and no recurrence for 24months
Hirten 2019[28]	Proportion of patients with frozen vs fresh FMT recurred vs not recurred *within 2 months*	55	59	11 (20%)	11 (18.6%)	p=0.86	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep. Data based on 114 patients available at 2 month follow-up
Hirten 2019[28]	Proportion of patients with frozen vs fresh FMT	34	47	13 (38.2%)	17 (36.2%)	p=0.85	All patients received vancomycin before FMT and FMT via colonoscopy or flexible sigmoidoscopy, all received bowel prep.

	recurred vs not recurred *within 6 months*						Data based on 81 patients available at 6 month follow-up

Impact on adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
McCune 2020[29]	No of patients with bacteraemia frozen vs fresh	87	31	0 (0%)	2 (6.4%)	-	Based on patients who were alive after 7 days and available for follow up. Total were 124 patients but 3x lost to follow up, 2x died (1x colon cancer and 1x perforated viscous and CDI presumed non-response to treatment) and 1x excluded as received abx at the same time. Both developed approx. 24hrs post-FMT although not proven that due to FMT as both patients also had same pathogens in urine

Impact on QoL

No studies

Stool frozen at -20°C vs -80°C

Impact on effectiveness -20 vs -80

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		

Satokari, 2020[95]	Resolution at 3 months	45	59	44 (98%)	56 (95%)	p>0.05	Comparing faeces stored at -80 and -20C and thawed for the procedure. Delivered via colonoscopy into caecum. Approx. 1/3 patients in each group immunocompromised Resolution = Symptom improvement after at least one FMT and no recurrence for 3 months
Satokari, 2020[95]	Cure at 1 year	42	57	38 (90%)	50 (88%)	p>0.05	

Impact on adverse events

No studies

Impact on QoL

No studies

Lyophilised stool

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Staley 2021[96]	Proportion of patients who achieved no CDI recurrence after one dose of FMT	27	-	23 (85.2%)	-	-	Patients chose a route of administration themselves. Authors hypothesised that the timing of recolonisation is important in preventing CDI occurrence. They previously observed that FMT from oral capsules requires more time for the microbiota to be established in the GI and that bacteria from lyophilised samples are less viable and therefore this method is particularly affected by this. Both groups received lyophilised sample from the similar capsules. The capsule was broken

							and the contents were dissolved in normal saline for those who had it delivered via colonoscopy (ileum or cecum). They also received bowel prep, oral patients did not but were asked to take capsules on empty stomach and consume clear liquids for 2hrs after the treatment. Authors reported that the patients with unsuccessful FMT were cured with a second or third dose of FMT, thus the overall success was 100%.
Vigvari 2019[97]	Proportion of patients who responded to 1 FMT and had no recurrence in 6 weeks	19	-	15 (78.9%)	-	-	Intervention: lyophilised sample All FMT from unrelated donor delivered via NG, reported 16/19 (84.2%) had severe CDI at the time of the transplant. 15/19 had symptom resolution within 48hrs. Four did not respond to treatment, two had repeated FMT also lyophilised. One person died shortly after FMT and one was treated with abx successfully. Authors reported different percentages for first and second treatment but this is because they excluded one patient who died.
Vigvari 2019[97]	Proportion of patients who responded to 1 or 2 FMT and had no recurrence in 6 weeks	19	-	17 (89.5%)	-	-	
Reigadas 2020[98]	Proportion of patients who achieved primary resolution	32	-	26 (81%)	-	-	Authors described a delivery of lyophilised capsules delivered as one dose (4-5 capsules per one treatment). All patients had a light dinner 12h before FMT and were fasting for 10-12 hrs after. Primary resolution: resolution after 1 treatment and no recurrence within 2 months Authors

							reported risk factors but these were for CDI before FMT
Reigadas 2020[98]	Proportion of patients who achieved resolution	32	-	28 (88%)	-	-	Authors described a delivery of lyophilised capsules delivered as one dose (4-5 capsules per one treatment). All patients had a light dinner 12h before FMT and were fasting for 10-12 hrs after. One of six patients who did not respond to initial FMT was not re-treated but included here as well (considered not responded) Resolution: resolution after 1 or more treatment and no recurrence within 2 months Authors reported risk factors but these were for CDI before FMT

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Vigvari 2019b[111]	Proportion of patients who experienced headache, GI symptoms, fever, fatigue or rash. (follow-up until discharge)	19	-	0	-	-	Self-reported, enquired by medical staff

Impact on QoL

No studies

Type of capsule

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Varga 2021[99]	Proportion of patients who responded to 1 or more FMT	16	12	15 (94%)	8 (67%)	p=0.133	Comparing supernatant capsule to sediment capsule. P value based on Fisher's exact, 2-tailed test (because counts less than 5 in one cell and the direction of effect not known) I can't really figure out how supernatant and the sediment capsules were obtained

Impact on adverse events

No studies

Impact on QoL

No studies

Processing time

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Allegretti 2020b[100]	Number of patients experiencing cure and no	I1: 466 I2: 623 I3: 682 I4: 122	23	I1: 84.98% I2: 79.94% I3: 80.06% I4: 85.25%	86.96%	p=0.48	Comparing different process times in min: C: 30 I1: 31-60 I2: 61-90

	recurrence within 8 weeks *Process time*	I5: 8		I5: 87.50%			I3: 91-120 I4: 121-150 I5: >150
Terveer, 2020[24]	Mean time for processing faeces *relapsed vs cured within 2m*	13	116	163min	168min	p=0.73	Defined as number of minutes from defecation to freezing

Impact on adverse events

No studies

Impact on QoL

No studies

Storage time

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Allegretti 2020b[100]	Number of patients experiencing cure and no recurrence within 8 weeks *Storage time*	I1: 142 I2: 319 I3: 989 I4: 439 I5: 12	123	I1: 80.28% I2: 79.94% I3: 85.04% I4: 80.64% I5: 83.33%	82.61%	p=0.34	Comparing different storage time (frozen) in days: C: 30 I1: 31--60 I2: 61-90 I3: 91-180 I4: 181-360 I5: 361-720

Satokari, 2020[95]	Resolution at 12 months for stools stored at 20C	I1: 13 I2: 13 I3: 6	16	I1: 11 (85%) I2: 12 (92%) I3: 5 (83%)	15 (94%)	NS	Comparing faeces stored frozen: C = under two months I1: 2-4 months I2: 4-6 months I3> 6 months and thawed for the procedure. Delivered via colonoscopy into caecum. Approx. 1/3 patients in each group immunocompromised Resolution = Symptom improvement after at least one FMT and no recurrence for 3 months For two patients this was not recorded but two patients relapsed (82% cure)
Terveer, 2020[23]	Mean (SD) storage time of faecal suspension at -80C *relapsed vs cured within 2m*	13	116	214	275	p=0.27	

Impact on adverse events

No studies

Impact on QoL

No studies

Additional data from excluded studies:

Citation	Findings
Anaerobic vs aerobic conditions	
Papanicolas, 2019[94]	Study examined stools samples processed within 15 minutes from passage in either anaerobic chamber or in ambient air. Same anaerobic samples were also stored for 48hrs at 80C and allowed to thaw in anaerobic chamber to assess the freeze-

	thaw process. Reported that with immediate anaerobic processing, 50% microbiota remained viable within the stool but this was only 19% for samples processed in ambient air remained viable (p=0.007). After the freeze-thaw of the anaerobic samples, 23% microbiota remained viable, significantly different than fresh anaerobic samples (p=0.027). It was also reported that the diversity of microbiota was significantly better in fresh anaerobically processed samples with anaerobic commensal bacteria particularly affected by ambient air and freeze-thawing process.
Shimizu, 2021[101]	Reported that processing samples under anaerobic conditions helps in preserving anaerobic bacteria in the donor stool.
Burz, 2019[102]	Study examined taxonomic and metabolomic fingerprints of the samples of obtained from the stools from two donors which were left for different times, at different temperatures and exposed to aerobic or anaerobic conditions. They reported some changes due to these conditions and concluded that the best results for the samples tested at three months of storage, those prepared in maltodextrin-trehalose solutions and stored in a -80°C standard freezer and then rapidly thawed at 37°C, retained the best revivification potential . Maltodextrin-trehalose was also effective in preserving lyophilized samples. The study also reported that if time before transformation to transplants would exceed 24hours, fresh samples should not be exposed to temperatures above 20°C, and recommended refrigeration at 4°C for these samples and that oxygen-free atmosphere was not necessary as long as the air above collected samples removed.
fresh vs frozen conditions	
Papanicolas, 2019[94]	Study examined stools samples processed within 15 minutes from passage in either anaerobic chamber or in ambient air. Same anaerobic samples were also stored for 48hrs at 80C and allowed to thaw in anaerobic chamber to assess the freeze-thaw process. Reported that with immediate anaerobic processing, 50% microbiota remained viable within the stool but this was only 19% for samples processed in ambient air remained viable (p=0.007). After the freeze-thaw of the anaerobic samples, 23% microbiota remained viable, significantly different than fresh anaerobic samples (p=0.027). It was also reported that the diversity of microbiota was significantly better in fresh anaerobically processed samples with anaerobic commensal bacteria particularly affected by ambient air and freeze-thawing process.
Dorsaz, 2020[103]	Assessed the microbiota composition during freezing for up to one year. Reported that microbiota changes occurred progressively throughout the year with the abundance of Bacteroidetes decreasing and Firmicutes remaining stable.
Burz, 2019[102]	Study examined taxonomic and metabolomic fingerprints of the samples of obtained from the stools from two donors which were left for different times, at different temperatures and exposed to aerobic or anaerobic conditions. They reported some changes due to these conditions and concluded that the best results for the samples tested at three months of storage, those prepared in maltodextrin-trehalose solutions and stored in a -80°C standard freezer and then rapidly thawed at 37°C, retained the best revivification potential . Maltodextrin-trehalose was also effective in preserving lyophilized samples. The study also reported that if time before transformation to transplants would exceed 24hours, fresh samples should not be exposed to temperatures above 20°C, and recommended refrigeration at 4°C for these samples and that oxygen-free atmosphere was not necessary as long as the air above collected samples removed.
Emulsion processes	

Quaranta, 2020[104]	Reported using two different protocols for processing stool samples: magnet plate emulsion (MPE) and Seward Stomacher™ Emulsion (SSE), comparing different handling conditions. Results showed that both methods were similar in terms of maintaining microbial load and with SSE being marginally better preserving anaerobic bacteria. Quaranta, G., Fancello, G., Ianiro, G., Graffeo, R., Gasbarrini, A., Cammarota, G., Sanguinetti, M. and Masucci, L. (2020), Laboratory handling practice for faecal microbiota transplantation. J Appl Microbiol, 128: 893-898.

Administration factors (section 4.5)

Route of delivery

Colonoscopy vs other methods

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 30days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 59 (76%) I3: 28 (76%)	C: 47 (84%)	1:p=0.0946 2:p=0.2543 3:p=0.5632	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group MedCalc
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 90days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 57 (73%) I3: 26 (70%)	C: 47 (84%)	1:p=0.0946 2:p=0.1494 3:p=0.7523	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group MedCalc

Ponte 2018[25]	No of people w/ cure *after first FMT*	24	2	21 (88%)	2 (100%)	RR 0.84 [0.06-12.6], p=8997	Upper vs lower. All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three patients who had abx-associated diarrhoea (for respiratory infection) who were still considered 'cured'. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months. Blue font = RR for cure calculated in MedCalc
Ponte 2018[25]	No of successful *FMTs*	24	4	21 (88%)	4 (100%)	-	patients Upper vs lower. Based on the number of procedures, not patients. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months. All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three

							patients who had abx-associated diarrhoea (for respiratory infection) who were still considered ‘
Reigadas 2018[107]	Proportion of patients who achieved primary resolution	I1: 5 I2: 5	2	I1: 4 (80%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Primary resolution: resolution after 1 treatment and no recurrence within 2 months
Reigadas 2018[107]	Proportion of patients who achieved resolution	I1: 5 I2: 5	2	I1: 5 (100%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT.

							Resolution: resolution after 1 or more treatment and no recurrence within 2 months
Vaughn 2022[38]	Proportion of cured patients after one FMT *at 1 month follow-up*	170	96	143 (84%)	87 (91%)	p=0.12	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages
Vaughn 2022[38]	Proportion of cured patients after one FMT *at 2 month follow-up*	170	96	138 (81%)	80 (83%)	p=0.70	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages
Alghamdi, 2019[19]	Delivery method *Successful vs failed*	27	2	Colonoscopy: 19 (70%) EGD: 8 (30%)	Colonoscopy: 1 (50%) EGD: 1 (50%)	p=0.5320	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Dogra, 2022[26]	Proportion of patients receiving FMT via colonoscopy *successful vs failed*	140	25	122 (87.1)	17 (68.0)	p=0.003	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Peri, 2019[21]	OR of failure at 30d *Lower GIT vs other methods*	49	191	UV: OR=NR, p=0.254 MV: n/a – not significant at UV			Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate

Weingarden, 2022[39]	Proportion of patients given colonoscopy *successful vs failed*	168	67	161 (95.8%)	59 (88.1%)	p=0.033	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up. Univariate analysis.
Staley 2021[96]	Proportion of patients who achieved no CDI recurrence after one dose of FMT	9	18	9 (100%)	14 (77.8%)	p=0.2677	Lyophilisaed FMT given as colonoscopy or capsule. Nonrandomised as patients chose a route of administration themselves. Authors hypothesised that the timing of recolonisation is important in preventing CDI occurrence. They previously observed that FMT from oral capsules requires more time for the microbiota to be established in the GI and that bacteria from lyophilised samples are less viables and therefore this method is particularly affected by this. Both groups received lyophilised sample from the similar capsules. In intervention group, the capsule was broken and the contents were dissolved in normal saline before being delivered via colonoscopy (ileum or cecum). Colonoscopy patients received bowel prep, oral patients did not but were asked to take capsules on empty stomach and consume clear liquids for 2hrs after the treatment. Authors reported that the patients with unsuccessful FMT were cured with a second or third dose of FMT. The authors reported that colonoscopic delivery of lyophilised resulted in a faster engraftment.

Impact on adverse events

Author, Year	Outcome measure	Number of participants	Outcome	Significance	Comments

		Experimental	Control	Experimental	Control		
Ponte 2018[25]	Adverse events	24	4	0	0	-	FMT gastroscopy vs colonoscopy, events assessed immediately and at follow-up
Reigadas 2018[107]	Proportion of patients who experienced any adverse events	I1: 5 I2: 5	2	I1: 0 (0%) I2: 0 (0%)	1 (50%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Adverse event was E coli bacteraemia
Vaughn 2022[38]	Proportion of patients experiencing adverse events within a week	170	96	0 (0%)	2 (2%)	-	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages One patient was admitted to ICU with chest pain but later all negative results, another patient had aspiration pneumonia There was also one patient who died (not possible to know which group) but death was not due to FMT or CDI There were also some other adverse events but not possible to determine in which group: diarrhoea, constipation, bloating, flatus, fever – no differences between both groups reported.

Impact on QoL

No studies

Enema vs other methods

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Jiang 2018[108]	Proportion of patients cured after one FMT course	31	34	26 (84%)	30 (88%)	p=0.76	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min. Cure = no recurrence within 60days Small sample size – cannot rely on results if we are to assess inferiority.
Svensson, 2022[109]	Proportion of patients with resolution after 8 weeks post FMT	69	92	55 (78%)	49 (53%)	Adjusted OR: 3.79 [1.82 - 8.26]	There were three groups. Comparing here FMT capsules vs FMR retention enema. A third group (excluded) was bacteriotherapy. Choice of treatment was based on physician decision, patient preference and availability of the therapy. There were some changes in abx prescription for CDI, although this should have affected the groups equally. Most patients received FMT from unrelated donors (frozen), but there were 9 patients in enema group wo received FMT from

							close relatives (fresh). All capsule patients had PPI stopped 24hrs before FMT and fasted 6hrs before. Capsules were not lyophilised but were frozen, – consumed w/ apple or orange juice. Al patients FMT as a single treatment (and dose). The amount of donor material was significantly higher in enema group as 9 patients received 37-200g derived from fresh stool while other patients received standard 50g in both groups from universal donor. Resolution was absence of diarrhoea and negative CDI-PCR test. Adjusted OR capsule vs enema adjusted for age, sex, CCI, CDI episodes and severity and duration of abx.
Svensson, 2022[109]	Proportion of patients cured and no recurrence within 12m	69	92	52 (75%)	38 (41%)	RR for success 0.42, 0.27-0.66, p<0.0001	There were three groups. Comparing here FMT capsules vs FMR retention enema. A third group (excluded) was bacteriotherapy. Choice of treatment was based on physician decision, patient preference and availability of the therapy. There were some changes in abx prescription for CDI, although this should have affected the groups equally. Most patients received FMT from unrelated donors (frozen), but there were 9 patients in enema group wo received FMT from close relatives (fresh). All capsule patients had PPI stopped 24hrs before FMT and fasted 6hrs before. Capsules were not lyophilised but were frozen, – consumed w/ apple or orange juice. Al patients FMT as a single treatment (and dose). The amount of donor material was significantly higher in enema group as 9 patients received 37-200g derived from fresh stool while other patients received standard 50g in both groups from universal donor.

							Resolution was absence of diarrhoea and negative CDI-PCR test, recurrence was diarrhoea + positive CDI test. This is calculated based on occurrence rates 3/55 in capsules and 11/49 in enema group Calculated in MedCalc
Dogra, 2022[26]	Proportion of patients receiving FMT via enema *successful vs failed*	140	25	1 (0.7)	0 (0.0)	p=1.00	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Navalkele, 2020[42]	No of patients with no recurrence within 12 weeks (*after first FMT*)	47	-	38 (81%)	-	-	Retention enema. All patients treated with frozen FMT with abx stopped 24 hrs before procedure
Navalkele, 2020[42]	No of patients with no recurrence within 12 weeks (*after second FMT*)	47	-	43 (91%)	-	-	Retention enema. All patients treated with frozen FMT with abx stopped 24 hrs before procedure. All delivered via retention enema

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Jiang 2018[108]	Proportion of patients	31	34	12 (39%)	10 (29%)	p=0.28	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and

	developing diarrhoea within 7d						took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing diarrhoea within 3 months	31	34	14 (45%)	16 (47%)	p=1.00	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing nausea within 7d	31	34	13 (42%)	7 (21%)	p=0.12	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.

Jiang 2018[108]	Proportion of patients developing nausea within 3 months	31	34	15 (48%)	12 (35%)	p=0.32	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing vomiting within 7d	31	34	2 (7%)	2 (6%)	p=1.00	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing vomiting within 3 months	31	34	7 (22%)	2 (6%)	p=0.07	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home

							24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing abdominal cramps or pain within 7d	31	34	17 (55%)	24 (71%)	p=0.21	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing abdominal cramps or pain within 3 months	31	34	21 (68%)	26 (76%)	p=0.78	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing flatulence within 7d	31	34	8 (26%)	11 (32%)	p=0.60	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with

							100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing flatulence within 3 months	31	34	13 (42%)	15 (44%)	p=1.00	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing faecal urgency within 7d	31	34	14 (45%)	10 (29%)	p=0.21	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients	31	34	22 (71%)	21 (62%)	p=0.60	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and

	developing faecal urgency within 3 months						took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing constipation within 7d	31	34	1 (3%)	3 (8%)	p=0.62	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing constipation within 3 months	31	34	4 (13%)	6 (18%)	p=0.74	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.

Jiang 2018[108]	Proportion of patients developing other events within 7d	31	34	10 (32%)	8 (24%)	p=0.58	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing other events within 3 months	31	34	15 (44%)	18 (53%)	p=0.81	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min.
Jiang 2018[108]	Proportion of patients developing serious adverse events	31	34	4 (13%)	5 (15%)	p=1.00	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home

							24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min. Adverse events in intervention were: hospitalisation due to severe CDI (2d after FMT), hospitalisation for pneumonia (14d after FMT), death due to CVA (14d after FMT) and death due to COPD and cardiac failure (5m after FNT). In control group: hospitalisation for IBD flare-up (7d after FMT), 2x hospitalisation for CDI recurrence (7d and 14d after FMT), hospitalisation for diverticulitis (5m after FMT), death due to head trauma after fall (3m after FMT). Reported none of the events related to FMT.
Navalkele, 2020[43]	No of patients with severe adverse events (*90-d post FMT*)	47	-	1 (2%)	-	-	Enema. All patients treated with frozen FMT with abx stopped 24 hrs before procedure One immunocompetent patient developed VRE-BSI within 60 days post-FMT. There was also one immunocompromised patient who died but determined not related to CDI or FMT.

Impact on QoL

No studies

Lower GI (unspecified) vs other methods

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Osman 2022[110]	OR for cure rate *FMT upper vs lower*	NR	NR	0.57 [0.48-0.68]	1	p<0.01	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Osman 2022[110]	OR for cure *rate FMT oral vs lower*	NR	NR	0.59 [0.43-0.81]	1	p<0.01	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Terveer, 2020[23]	Proportion of patients with lower GI delivery *relapsed vs cured within 2m*	13	116	3 (23%)	9 (8%)	OR 3.6 [0.8-15.3], p=0.10	The majority of FMTs (127/143, 89%) were infused through a duodenal tube. FMT via the lower gastro-intestinal route was performed by colonoscopy because of motility disorders (n=4), an already planned colonoscopy to rule out IBD (n=8); or sigmoidoscopy because of an ileus due to severe CDI (n=4).
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT *Antegrade vs retrograde delivery*	9	11	6 (66.7%)	9 (81.8%)	p=0.617	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Osman 2022[110]	No of patients with sepsis or ID	NR	NR	0	0	-	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules)

	transmission *FMT lower vs FMT upper or oral*						FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)

Impact on QoL

No studies

Upper GI vs other methods

Impact on effectiveness

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Osman 2022[110]	OR for cure rate *FMT upper vs lower*	NR	NR	0.57 [0.48-0.68]	1	p<0.01	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 30days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 59 (76%) I3: 28 (76%)	C: 47 (84%)	1:p=0.0489 3:p=0.9968 C:p=0.2543	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 90days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 57 (73%) I3: 26 (70%)	C: 47 (84%)	1:p=0.0413 3:p=0.7523 C:p=0.1494	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group MedCalc

Ponte 2018[25]	No of people w/ cure *after first FMT*	24	2	21 (88%)	2 (100%)	RR 0.84 [0.06-12.6], p=8997	Upper vs lower. All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three patients who had abx-associated diarrhoea (for respiratory infection) who were still considered 'cured'. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months. Blue font = RR for cure calculated in MedCalc
Ponte 2018[25]	No of successful *FMTs*	24	4	21 (88%)	4 (100%)	-	patients Upper vs lower. Based on the number of procedures, not patients. Cure defined as resolution of diarrhoea (due to CDI) and no recurrence up to two months. All on abx until the day before the FMT, all underwent bowel prep w/ 4L polyethylene glycol night before. PPI (evening before and morning) for gastroscopy, loperamide before FMT if colonoscopy there were 28 patients total and 34 FMTs, three patients lost to follow-up. Two patients in gastroscopy group who experienced recurrence were given colonoscopy and were cured, one patient received gastroscopy and experienced recurrence again. In 'cured' group there were three

							patients who had abx-associated diarrhoea (for respiratory infection) who were still considered ‘
Reigadas 2018[107]	Proportion of patients who achieved primary resolution	I1: 5 I2: 5	2	I1: 4 (80%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Primary resolution: resolution after 1 treatment and no recurrence within 2 months
Reigadas 2018[107]	Proportion of patients who achieved resolution	I1: 5 I2: 5	2	I1: 5 (100%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT.

							Resolution: resolution after 1 or more treatment and no recurrence within 2 months
Alghamdi, 2019[19]	Delivery method *Successful vs failed*	27	2	Colonoscopy: 19 (70%) EGD: 8 (30%)	Colonoscopy : 1 (50%) EGD: 1 (50%)	p=0.5320	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Dogra, 2022[26]	Proportion of patients receiving FMT via upper GI *successful vs failed*	140	25	4 (2.9)	6 (24.0)	p<0.001	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Peri, 2019[21]	OR of failure at 30d *Upper GIT vs other methods*	49	191	UV: OR=NR, p=0.214 MV: n/a – not significant at UV			Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Terveer, 2020[23]	Proportion of patients with lower GI delivery *relapsed vs cured within 2m*	13	116	3 (23%)	9 (8%)	OR 3.6 [0.8-15.3], p=0.10	The majority of FMTs (127/143, 89%) were infused through a duodenal tube. FMT via the lower gastro-intestinal route was performed by colonoscopy because of motility disorders (n=4), an already planned colonoscopy to rule out IBD (n=8); or sigmoidoscopy because of an ileus due to severe CDI (n=4).
Yoon, 2021[27]	Proportion of patients who responded to 1 or more FMT	9	11	6 (66.7%)	9 (81.8%)	p=0.617	Patients were w/ recurrent or fulminant CDI, excluding immunocompromised and cirrhosis patients. Most donors were family members of the recipients but not all.

	Antegrade vs retrograde delivery						
Vigvari 2019[97]	Proportion of patients who responded to 1 FMT and had no recurrence in 6 weeks	44	16	39 (88.6%)	16 (100%)	p=0.3113,	Upper NG vs upper ND. authors reported that resolution of diarrhoea occurred in all patients: within 24hrs for ND group and 48hrs for NG group. In ND group: on patient had recurrent diarrhoea but CD toxin negative. Diagnosed with IBS later. Patients in NG group who did not respond to 1st FMT were >75y and all had underlying severe conditions UBA usually considered very high risk of bias but in this case the results show no difference, thus not likely to commit type 1 error.
Vigvari 2019[97]	Proportion of patients who responded to 1 or 2 FMT and had no recurrence in 6 weeks	44	16	42 (95.5%)	16 (100%)	NS	Upper NG vs upper ND. p value not provided but calculated in MedCalc, authors reported that resolution of diarrhoea occurred in all patients: within 24hrs for ND group and 48hrs for NG group. In ND group: on patient had recurrent diarrhoea but CD toxin negative. Diagnosed with IBS later. Patients in NG group who did not respond to 1st FMT were >75y and all had underlying severe conditions. UBA usually considered very high risk of bias but in this case the results show no difference, thus not likely to commit type 1 error.

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Osman 2022[110]	No of patients with sepsis or ID transmission *FMT lower vs FMT upper or oral*	NR	NR	0	0	-	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Bestfater, 2021[106]	Proportion of patients experiencing any adverse events	I: 32 I2: 32 I3: 32	C: 32	I: 1(3%) I2: 4 (13%) I3: 2 (6%)	C: 0 (0%)	1:p=0.2033 3:p=0.4032 C:p=0.1351	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Includes mild and severe events. Mild: constipation and diarrhoea severe: aspiration and bleeding from small intestine) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of patients experiencing severe adverse events	I: 32 I2: 32 I3: 32	C: 32	I: 0 (0%) I2: 2 (6%) I3: 0 (0%)	C: 0 (0%)	-	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Includes events: aspiration and bleeding from small intestine), both in UGIT group Volume of FMT delivery was not provided for either group
Ponte 2018[25]	Adverse events	24	4	0	0	-	FMT gastroscopy vs colonoscopy, events assessed immediately and at follow-up
Reigadas 2018[107]	Proportion of patients who experienced any adverse events	I1: 5 I2: 5	2	I1: 0 (0%) I2: 0 (0%)	1 (50%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives,

							Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Adverse event was E coli bacteraemia

Impact on QoL

No studies

Oral capsules vs other methods

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Jiang 2018[108]	Proportion of patients cured after one FMT course	31	34	26 (84%)	30 (88%)	p=0.76	Reported that all subjects stopped abx 48h before the procedure, had liquid diet a day before and took loperamide in the morning before the procedure. Authors reported that at the start, all intervention patients (n=8) received capsules with 100g of faecal microbiota but the treatment failure was high. After this, patients received a 100g in a clinic followed by a second 100g dose at home 24hrs later. For control group, 500ml containing 100g microbiota frozen and then thawed administered via enema and retained for 60min. Cure = no recurrence within 60days

							Small sample size – cannot rely on results if we are to assess inferiority.
Osman 2022[110]	OR for cure *rate FMT oral vs lower*	NR	NR	0.59 [0.43-0.81]	1	p<0.01	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 30days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 59 (76%) I3: 28 (76%)	C: 47 (84%)	1:p=0.5022:p=0.7685C:p=0.3250	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 90days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 57 (73%) I3: 26 (70%)	C: 47 (84%)	1:p=0.03562:p=0.9134C:p=0.1207	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group Medcalc
Reigadas 2018[107]	Proportion of patients who achieved primary resolution	I1: 5 I2: 5	2	I1: 4 (80%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent

							NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Primary resolution: resolution after 1 treatment and no recurrence within 2 months
Reigadas 2018[107]	Proportion of patients who achieved resolution	I1: 5 I2: 5	2	I1: 5 (100%) I2: 4 (80%)	2 (100%)	NR	I1: oral capsules, I2: NJ tube, C: colonoscopy. All donations received preferably <6h and always <24h of evacuation, not contaminated w/ water, urine, blood, & min 50g. Suspended in saline w/o preservatives, Blended, filtered, centrifuged, resuspended in saline + 12.5% glycerol. For the capsule formulation, further centrifuged to increase the concentration. Abx discontinued at least 48h before FMT, light dinner 12hrs before. For NJ tube: omeprazole 40 mg, all prepped w/ 4L Macrogol 4000. There was another patient who underwent NJ-FMT but was excluded: died of unrelated reasons within one week of FMT. Resolution: resolution after 1 or more treatment and no recurrence within 2 months
Reigadas 2018[107]	Proportion of patients who achieved primary resolution	32	-	26 (81%)	-	-	Authors described a delivery of lyophilised capsules delivered as one dose (4-5 capsules per one treatment). All patients had a light dinner 12h before FMT and were fasting for 10-12 hrs after. Primary resolution: resolution after 1 treatment and no recurrence within 2 months Authors reported risk factors but these were for CDI before FMT
Reigadas 2018[107]	Proportion of patients who achieved resolution	32	-	28 (88%)	-	-	Authors described a delivery of lyophilised capsules delivered as one dose (4-5 capsules per one treatment). All patients had a light dinner 12h before FMT and were fasting for 10-12 hrs after. One of six patients who did not respond to initial

							FMT was not re-treated but included here as well (considered not responded) Resolution: resolution after 1 or more treatment and no recurrence within 2 months Authors reported risk factors but these were for CDI before FMT
Vaughn 2022[38]	Proportion of cured patients after one FMT *at 1 month follow-up*	170	96	143 (84%)	87 (91%)	p=0.12	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages
Vaughn 2022[38]	Proportion of cured patients after one FMT *at 2 month follow-up*	170	96	138 (81%)	80 (83%)	p=0.70	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages
Svensson, 2022[109]	Proportion of patients with resolution after 8 weeks post FMT	69	92	55 (78%)	49 (53%)	Adjusted OR: 3.79 [1.82 - 8.26]	There were three groups. Comparing here FMT capsules vs FMR retention enema. A third group (excluded) was bacteriotherapy. Choice of treatment was based on physician decision, patient preference and availability of the therapy. There were some changes in abx prescription for CDI, although this should have affected the groups equally. Most patients received FMT from unrelated donors (frozen), but there were 9 patients in enema group wo received FMT from close relatives (fresh). All capsule patients had PPI stopped 24hrs before FMT and fasted 6hrs before. Capsules were not lyophilised but were frozen, – consumed w/ apple or orange juice. Al patients FMT as a single treatment (and dose). The amount

							of donor material was significantly higher in enema group as 9 patients received 37-200g derived from fresh stool while other patients received standard 50g in both groups from universal donor. Resolution was absence of diarrhoea and negative CDI-PCR test. Adjusted OR capsule vs enema adjusted for age, sex, CCI, CDI episodes and severity and duration of abx.
Svensson, 2022[109]	Proportion of patients cured and no recurrence within 12m	69	92	52 (75%)	38 (41%)	RR for success 0.42, 0.27-0.66, p<0.0001	There were three groups. Comparing here FMT capsules vs FMR retention enema. A third group (excluded) was bacteriotherapy. Choice of treatment was based on physician decision, patient preference and availability of the therapy. There were some changes in abx prescription for CDI, although this should have affected the groups equally. Most patients received FMT from unrelated donors (frozen), but there were 9 patients in enema group wo received FMT from close relatives (fresh). All capsule patients had PPI stopped 24hrs before FMT and fasted 6hrs before. Capsules were not lyophilised but were frozen, – consumed w/ apple or orange juice. Al patients FMT as a single treatment (and dose). The amount of donor material was significantly higher in enema group as 9 patients received 37-200g derived from fresh stool while other patients received standard 50g in both groups from universal donor. Resolution was absence of diarrhoea and negative CDI-PCR test, recurrence was diarrhoea + positive CDI test. This is calculated based on occurrence rates 3/55 in capsules and 11/49 in enema group

							Calculated in MedCalc
Dogra, 2022[26]	Proportion of patients receiving FMT orally (capsules) *successful vs failed*	140	25	13 (9.3)	2 (8.0)	p=1.00	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Peri, 2019[21]	OR of failure at 30d *Capsules vs other methods*	49	191	UV: OR=NR, p=0.093 MV: n/a – not significant at UV			Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Staley 2021[96]	Proportion of patients who achieved no CDI recurrence after one dose of FMT	9	18	9 (100%)	14 (77.8%)	p=0.2677	Lyophilisaed FMT given as colonoscopy or capsule. Nonrandomised as patients chose a route of administration themselves. Authors hypothesised that the timing of recolonisation is important in preventing CDI occurrence. They previously observed that FMT from oral capsules requires more time for the microbiota to be established in the GI and that bacteria from lyophilised samples are less viables and therefore this method is particularly affected by this. Both groups received lyophilised sample from the similar capsules. In intervention group, the capsule was broken and the contents were dissolved in normal saline before being delivered via colonoscopy (ileum or cecum). Colonoscopy patients received bowel prep, oral patients did not but were asked to take capsules on empty stomach and consume clear

							liquids for 2hrs after the treatment. Authors reported that the patients with unsuccessful FMT were cured with a second or third dose of FMT. The authors reported that colonoscopic delivery of lyophilised resulted in a faster engraftment.

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Osman 2022[110]	No of patients with sepsis or ID transmission *FMT lower vs FMT upper or oral*	NR	NR	0	0	-	FMT (upper GI via upper endoscopy or nasoenteric) FMT (oral: frozen capsules) FMT (lower GI via: colonoscopy, sigmoidoscopy, enema)
Bestfater, 2021[106]	Proportion of patients experiencing any adverse events	I: 32 I2: 32 I3: 32	C: 32	I: 1(3%) I2: 4 (13%) I3: 2 (6%)	C: 0 (0%)	-	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Includes mild and severe events. Mild: constipation and diarrhoea severe: aspiration and bleeding from small intestine) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of patients experiencing severe	I: 32 I2: 32 I3: 32	C: 32	I: 0 (0%) I2: 2 (6%) I3: 0 (0%)	C: 0 (0%)	-	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules

	adverse events						C: LGIT (colonoscopy, not specified) Includes events: aspiration and bleeding from small intestine), both in UGIT group Volume of FMT delivery was not provided for either group
Reigadas 2018[107]	Proportion of patients who achieved primary resolution and developed side effects	32	-	0 (0%)	-	-	Authors described a delivery of lyophilised capsules delivered as one dose (4-5 capsules per one treatment). All patients had a light dinner 12h before FMT and were fasting for 10-12 hrs after. Reported that well tolerated by all
Vaughn 2022[38]	Proportion of patients experiencing adverse events within a week	170	96	0 (0%)	2 (2%)	-	Comparing oral capsules to colonoscopy. No of patients with outcome calculated from percentages One patient was admitted to ICU with chest pain but later all negative results, another patient had aspiration pneumonia There was also one patient who died (not possible to know which group) but death was not due to FMT or CDI There were also some other adverse events but not possible to determine in which group: diarrhoea, constipation, bloating, flatus, fever – no differences between both groups reported.
Cold 2022[54]	Proportion of patients with MDR infections after FMT	18	-	0 (0%)	-	-	FMT was oral capsules given over three days, 25 each day. each capsule consisted of 0.4ml concentrated faecal material and 0.2ml glycerol, total dose approx. equivalent of 50g fresh stool per day.

Cold 2022[54]	Proportion of patients with serious adverse events after FMT	18	-	7 (39%)	-	-	FMT was oral capsules given over three days, 25 each day. each capsule consisted of 0.4ml concentrated faecal material and 0.2ml glycerol, total dose approx. equivalent of 50g fresh stool per day. Seven admission to hospital, 6 considered unrelated and 1/18 (6%) worsening of UC – considered possible due to FMT
Cold 2022[54]	Proportion of patients who died within 6 months after FMT	18	-	2 (11%)	-	-	FMT was oral capsules given over three days, 25 each day. each capsule consisted of 0.4ml concentrated faecal material and 0.2ml glycerol, total dose approx. equivalent of 50g fresh stool per day. Reported neither death due to FMT
Cheminet, 2018[43]	Proportion of patients experiencing adverse events	15	-	1 (6.7%)	-	-	Oral. Success defined as initial response and no recurrence. Capsules from one of three healthy donors, given to patients with recurrent CDI, abx discontinued 48hrs earlier. Regime was 15 capsules/day for 2 days (15-24g total). Minimum follow up was three months and all patients recovered with no relapse. Three patients died (malignancies). Two patients had new CDI (3 and 12 months after FMT, due to the initial responses and time lapsed these were considered new infections rather than relapses) and both responded to 2nd FMT with no sign of relapse 4 and 5 months later. One immunocompetent patient had 38C fever and fatigue for 48hrs

Impact on QoL

No studies

Bidirectional vs other methods

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 30days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 59 (76%) I3: 28 (76%)	C: 47 (84%)		Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 90days	I: 32 I2: 78 I3: 37	C: 56	I: 32 (100%) I2: 57 (73%) I3: 26 (70%)	C: 47 (84%)		Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of cured patients after one FMT @ 30days *bidirectional vs other methods*	32	171	32 (100%)	134 (78%)	RR for recurrence (n=39 in control) =0.784 [0.724–0.848], p=0.004	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Comparing bidirectional vs unidirectional methods Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of cured patients after one FMT @	32	171	32 (100%)	130 (76.0%)	RR for recurrence (n=41 in	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules

	90days *bidirectional vs other methods*					control) = 0.760 [0.699–0.827], p =0.002	C: LGIT (colonoscopy, not specified) Comparing bidirectional vs unidirectional methods Volume of FMT delivery was not provided for either group

Impact on adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Bestfater, 2021[106]	Proportion of patients experiencing any adverse events	I: 32 I2: 32 I3: 32	C: 32	I: 1(3%) I2: 4 (13%) I3: 2 (6%)	C: 0 (0%)	-	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Includes mild and severe events. Mild: constipation and diarrhoea severe: aspiration and bleeding from small intestine) Volume of FMT delivery was not provided for either group
Bestfater, 2021[106]	Proportion of patients experiencing severe adverse events	I: 32 I2: 32 I3: 32	C: 32	I: 0 (0%) I2: 2 (6%) I3: 0 (0%)	C: 0 (0%)	-	Methods of delivery were: I: bidirectional (via UGIT and LGIT) I2: UGIT to small intestine I3: capsules C: LGIT (colonoscopy, not specified) Includes events: aspiration and bleeding from small intestine), both in UGIT group Volume of FMT delivery was not provided for either group

Impact on QoL

No studies

Other factors

Location of delivery

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Weingarden, 2022[39]	Proportion of patients w/ delivery to terminal ileum *successful vs failed*	168	67	71 (42.3%)	25 (37.3%)	multivariate OR for success: 4.830 (1.359–17.167), p=0.015	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.
Weingarden, 2022[39]	Most distal location *successful vs failed*	168	67	Oral: 1 (0.6%) UGI: 3 (1.8%) TI: 15 (8.9%) RC: 110(65.5%) TC: 23 (13.7%) LC: 12 (7.1%)	Oral: 3 (4.5%) UGI: 3 (4.5%) TI: 3 (4.5%) RC: 38 (56.7%) TC: 14 (20.9%) LC: 1 (1.5%)	multivariate OR for success: 1.362 (0.527–3.524), p=0.524	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up. UGI: upper GI, TI: terminal ileum, RC: right colon, TC: transverse colon, LC: left colon

Impact on adverse events

No studies

Impact on QoL

No studies

Volume of FMT infused

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Dogra, 2022[26]	Mean (SD) FMT volume infused *successful vs failed*	140	25	337.1 (137.1)	313.5 (139.8)	p=0.12	Success defined as initial response and no recurrence at follow-up. All patients followed up for more than 60d. Median follow-up from first FMT was 2.5 months (IQR 0.7 to 221.5).
Weingarden, 2022[39]	Median (IQR) volume of stool infused *successful vs failed*	168	67	250 (250–300)	250 (250–450)	multivariate OR for success: 1.004 (0.997–1.011), p=0.254	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

Impact on adverse events

No studies

Impact on QoL

No studies

Proton Pump Inhibitors use

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Peri, 2019[21]	OR failure at 30d *PPI*	49	191			UV: OR=NR, p=0.114 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate

Impact on adverse events

No studies

Impact on QoL

No studies

Antimotility agents used

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Peri, 2019[21]	OR failure at 30d *Antimotility agent*	49	191			UV: OR=NR, p=0.925 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group

							UV=univariate, MV=multivariate
Weingarden, 2022[39]	Proportion of patients given loperamide *successful vs failed*	168	67	126 (75.0%)	47 (70.1%)	multivariate OR for success: 1.263 (0.217–7.367), p=0.795	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at any time during the follow-up.

Impact on adverse events

No studies

Impact on QoL

No studies

Bowel lavage/prep used

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Peri, 2019[21]	OR failure at 30d *Bowel lavage*	49	191			UV: OR=NR, p=0.191 MV: n/a – not significant at UV	Failed vs not failed. Failure defined as not responded to treatment or recurrence within 30d There are some data in tables 1-3 which show different number of patients and these are based on the baseline (at FMT=256) and at 30 and 90d follow-up. It is not possible to determine how many people had risk factors in either group UV=univariate, MV=multivariate
Weingarden, 2022[39]	Bowel prep *successful vs failed*	168	67	Poor: 7 (4.2%) A: 11 (6.6%) F: 21 (12.5%)	P: 4 (6.0%) A: 11 (16.4%) F: 9 (13.4%)	multivariate OR for success	Successful defined as initial success and no recurrence during follow-up (length not reported but >60days and some people for few years). Failure defined as no initial success or relapse at

				G: 110 (65.5%)	G: 28 (41.8%)	when poor or inadequate: 0.409 (0.208–0.803), p=0.009	any time during the follow-up. Poor, Adequate, Fair and Good.
Tariq, 2021[22]	Quality of bowel preparation *successful vs failed*	70	70			OR 3.84 for patients who were not given poor bowel prep 95% CI, 1.59-9.28	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Cases n=61 – into not available for 9. Quality of prep was assessed by endoscopist at the time of FMT Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria

Impact on adverse events

No studies

Impact on QoL

No studies

Post-FMT factors (section 4.6)

Use of non-CDI antibiotics

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Alghamdi, 2019[19]	Number of patients who had non-CD abx within 12 weeks of FMT *Successful vs failed*	27	2	7 (26%)	0 (0%)	p=1	Success = responded to FMT (at least one) and no symptoms recurrence for 8 weeks
Tariq, 2021[22]	Number of patients w/ use of non-CDI abx after FMT *successful vs failed*	70	70	15 (21.4%)	38 (54.3%)	p<0.001 M: OR for failure: 7.39 [3.02-18.07]	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M= multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria
Terveer, 2020[23]	Number of patients with post FMT abx use *relapsed*	13	102	5 (39%)	15 (15%)	OR 3.6 [1.0-12.6], p=0.03	

	vs cured within 2m						

Impact on adverse events

No studies

Impact on QoL

No studies

Other post-FMT factors

Impact on effectiveness

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
Terveer, 2020[23]	Number of patients with post-FMT infection (not CDI) *relapsed vs cured within 2m*	13	102	2 (15%)	17 (17%)	OR 0.9 [0.2-4.5], p=1.0	

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Tariq, 2021[22]	Number of patients w/ antisecretory therapy after FMT	70	70	19 (21.7%)	22 (31.4%)	p=0.57	There were a total of 522 patients and from 452, 70 were selected as controls to match the cases by sex and the date of FMT. Failure was identified as no response to FMT or recurrence at up to 5 years of follow-up U= univariate analysis, M=

	successful vs failed						multivariate analysis (only performed on risk factors which were considered significant in univariate). Most FMTs were colonoscopies, but some were via enema, combined endoscopy and sigmoidoscopy Some patients were managed with FMT after failure – not included in this analysis. Authors also performed risk factors for early vs late failure but this was only on cases – not our inclusion criteria

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Terveer, 2020[23]	Number of patients with hospitalisation post-FMT (not CDI related) *relapsed vs cured within 2m*	13	102	3 (23%)	14 (14%)	OR 1.9 [0.5-7.7], p=0.41	

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
Kachlikova, 2020[20]	Median (min-max) time from FMT to 1st defecation	45	15	20 (12–24)	24 (3–24)	Multivariate OR for time (NS)	All FMT given by retention enema. Time threshold not specified

	successful vs failed					OR=1.0 [0.9–1.1], p=0.914	

Impact on adverse events

No studies

Impact on QoL

No studies

Prophylactic FMT (section 4.7)

No studies

Additional data from excluded studies:

Citation
[115]Kates AE, Gaulke I, De Wolfe T, Zimbric M, Haight K, Watson L, Suen G, Kim K, Safdar N. Fecal microbiota transplantation for patients on antibiotic treatment with C. difficile infection history (GRAFT): Study protocol for a phase II, randomized, double-blind, placebo-controlled trial to prevent recurrent C. difficile infections. Contemp Clin Trials Commun. 2020 May 19;18:100576.

FMT for non-CDI indications (section 4.8)

Ulcerative colitis

Effectiveness of FMT on UC

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Chehade, 2022[116]	No of patients achieving clinical & endoscopic remission	161	163	49 (30%)	16 (10%)	OR=4.11 [2.19-7.72] I^2=0%, p=0.82	6x RCT included. FMT was different types (colonoscopy, enema, oral, and different types of upper), donors all universal – some studies used only one, FMT fresh or frozen. Two studies used abx in both groups and 4x used no abx in either. One study used corticosteroids w/ FMT but sensitivity analysis showed similar results, also no difference between active and in remission UC. Sensitivity analyses also showed no difference for fresh vs frozen, single vs pooled donors, intensive vs less intensive frequency of FMT (1x/week vs less than 1x/week), w/ or w/o abx, w/ or w/o bowel prep.
Brezina, 2021[117]	No of patients achieving clinical remission @ 12 weeks	21	22	12 (57%)	8 (36%)	NS	This was non-inferiority trial. Study regimen was 5x FMT via enema in first week followed by 5 weeks once weekly. Control was mesalamine enema every days for 2 weeks and every other day for the remaining four weeks. Remission defined as Mayo score no more than 2 and no sub-score more than 1. FMT was from universal donors, frozen. There were 23 patients in the FMT group but they did not tolerate FMT after first infusion and were excluded from treatment but included in ITT analysis. Also reported no significant difference in clinical response and endoscopic remission. Also reported that microbial diversification was observed in both groups but it was sustained at 3months in FMT only. Showed FMT not inferior to mesalamine which is a standard for treating this type of UC.
Tkach, 2022[118]	No of patients achieving clinical	26	27	16 (61.5%)	14 (51.9%)	p=0.583	Remission of UC, defined as a partial Mayo score ≤2, + decreased fecal calprotectin Also reported that among 14 in control group , 5 required higher dose of mesalazine.

	remission @ 4 weeks						
Tkach, 2022[118]	No of patients achieving clinical remission @ 8 weeks	26	27	22 (84.6%)	19 (70.4%)	p=0.215	Remission of UC, defined as a partial Mayo score ≤2, + decreased fecal calprotectin Possibly underpowered as calculations said 60 participants needed.
Tkach, 2022[11]	Mean Mayo score after 8 weeks	26	27	1.34 ± 1.44	2.14 ± 1.4	p=0.045	

Adverse events

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Chehade, 2022[116]	No of patients experiencing at least 1 AE within 1week	161	163	8.07%	6.13%	OR=1.38 [0.58-3.30] p=0.46	6x RCT included. Worsening colitis (OR, 0.89; 95% CI, 0.26-3.05), colectomy (OR, 1.39; 95% CI, 0.22-8.99), and CDI (OR, 4.27; 95% CI, 0.45-40.64)
Brezina, 2021[117]	No of patients experiencing at least 1 AE	21	22	12 (57%)	13 (59%)	NS	All were self-limiting GI complaints.
Brezina, 2021[117]	No of patients experiencing severe AE	21	22	4 (19%)	1 (5%)	NS	All were worsening colitis requiring intensification of treatment (e.g. steroids or biological therapy).
Tkach, 2022[118]	No of patients experiencing at least 1 AE	26	27	6 (23.1)	2 (7.4%)	p=0.113	FMT: abdominal pain or bloating (x3), diarrhea (x2), constipation (x1). Control: constipation (x1), headaches (x1)

							No serious events in either group.

QoL

No studies

Crohn's Disease

Effectiveness of FMT on CD

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Sokol, 2020[129]	Number of patients experiencing no flare @ 20 weeks	8	9	5 (62.5%)	3/9 (33%)	p=0.23	Patients in both groups were recruited during CD flare and all given corticosteroids. When in remission, patients given either one dose of FMT (equivalent of 50-100g stool) or one sham FMT (physiological serum), both delivered via colonoscopy to caecum. Excluded were those who had a fistula, abscesses, needed surgical treatment or were on immunosuppressants in the last 3 months. Patients randomised after they responded to corticosteroids within 3 weeks. Authors say they used intention to treat analysis, but they did not – they randomised 10 patients into sham FMT and 11 into FMT but only 9 and 8 people were analysed. 6 and 5 respectively completed a trial with three in each group declining further participation. Reported that 4/6 who withdrew experienced a flare. The CDEIS decreased significantly 6 weeks after FMT (8.5 [4.6; 13.0] vs. 3.5 [1.0; 8.9]; p = 0.03) but not after sham (2.4 [0.0;8.3] vs. 2.7 [0.7;10.0]; p = 0.8; but this was

							only based on the subset of people who were available at 6-week follow up and excluding one patient in each group due to bowel cleansing problems. The baseline for CDEIS based on all those who were randomised was different: 1.6 in FMT and 7.1 in sham FMT, thus not comparable to the results obtained. 6 weeks after FMT, CRP levels remained stable (3.0 [3.0; 3.0] vs. 3.0 [3.0; 14.2] mg/l; p = 0.5) while they had already started to increase in the sham group (3.0 [3.0; 4.2] vs. 6.9 [4.0; 8.7] mg/l; p = 0.008. Also note before after comparisons rather than between groups – not a usual approach.
Sokol, 2020[129]	Number of patients w/ steroid free clinical remission	8	9	7 (88%)	4 (44.4%)	p=0.13	

Adverse events

No studies

QoL

No studies

Pouchitis

Effectiveness of FMT on Pouchitis

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		

Herfarth, 2019[130]	No of patients in remission within 16 weeks	4	2	0 (0%)	0 (0%)	-	Patients with antibiotic dependant pouchitis defined as those who need >4weeks of abx to remain in remission w/ history of at least two attempts to stop abx. All FMT from one universal donor, frozen. All patients stopped abx 24hrs before. Intervention: 24g stool infused via endoscopy (not specified) in one session + 14d of 6x (4.2g total faecal matter) capsules. Control was placebo infusion and capsules. Five patients offered off-protocol FMT afterwards and 4 still did not receive remission. Initial protocol aimed to include 20 patients but due to no effect, the study was stopped. Also reported that faecal calprotectin increased and that only 1 patient (who responded to off-protocol FMT) had a successful engraftment.
Karjalainen, 2021[131]	No of patients in remission and no recurrence within 52 weeks	13	13	4 (31%)	5 (38%)	p=0.183	Two FMT given: one in week 0 via pouchoscopy and in week 4 via transanal catheter. All from universal donor. Control had autologous FMT as placebo. Abx in both groups discontinued 36hrs before FMT and all given loperamide ½ hr before. All advised to hold FMT in pouch for as long as possible, no bowel prep. Probiotics allowed in participants used them. Donor universal, previously used for successful FMT in C diff, FMT previously frozen. Remission = PDAI score <7. Reported that five patients in FMT relapsed before the second FMT and none of the patients relapsed before second FMT in placebo group

Adverse events

Author, Year	Outcome measure	Number of participants	Outcome	Significance	Comments

		Experimental	Control	Experimental	Control		
Herfarth, 2019[130]	No of patients experiencing adverse events	4	2	0 (0%)	0 (0%)	-	Patients with antibiotic dependant pouchitis defined as those who need >4weeks of abx to remain in remission w/ history of at least two attempts to stop abx. All FMT from one universal donor, frozen. All patients stopped abx 24hrs before. Intervention: 24g stool infused via endoscopy (not specified) in one session + 14d of 6x (4.2g total faecal matter) capsules. Control was placebo infusion and capsules.
Karjalainen, 2021[131]	No of patients experiencing at least 1 AE within 1week	13	13	3 (23%) (fever, abdo pain, faecal urgency, nausea)	1 (8%) (fever)	-	No major adverse events, all other events self-limiting, although patient w/ nausea lost some weight.

QoL

No studies

Irritable Bowel Syndrome

Effectiveness of FMT on IBS

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Wu, 2022[132]	Number of patients not achieving cure @ 12 weeks	290	186	105	111	RR 0.75, [0.43–1.31] I^2=87%	Data overall show no benefit, but it seems that this may be due to some other factors. FMT via oral capsules was significantly less effective (RR for not achieving cure 1.88 (1.06–3.35) I^2=36%), while positive effect was seen for colonoscopy (0.70

							(0.51–0.96) I^2=0%) and upper GI (0.37 (0.14–0.99) I^2=91%). Other protective factor was fresh stool given (0.59 (0.41–0.85) I^2=0%). High heterogeneity for upper GI could be because of the delivery method: gastroscopy vs NJ tube (both delivered to duodenum). Data in the text (55% vs 40% success) don't seem to correspond to the data in the figure
Wu, 2022[132]	Number of patients not sustaining cure @ 1 year	121	73	80	55	RR 0.90 [0.72-1.12]	Based on three studies.
Singh, 2021[133]	Mean (SD) IBS-SSS change at 10 weeks	I1: 8 I2: 9 I3: 7	C: 11	I1: −32.3 (124.8) I2: −85.3 (94.6) I3: −114 (149.3)	C: −93.4 (97.1)	p=0.55	Study had four arms: I1: FMT alone, I2: FMT + pre-treatment Rifaximin, I3: FMT + pre-treatment Ciprofloxacin & Metronidazole, C: placebo. Patients in all groups also given omeprazole for 2d and bowel prep 24hrs before FMT or placebo. Participants had IBS predominant diarrhoea type. Primary outcome was success of FMT engraftment – not our criteria, thus only secondary outcomes reported here. FMT from universal donors, frozen, delivered as a capsule, one treatment of 19x capsules containing 0.75g faecal matter. Trial ended early as the Open Biome capsules were no longer available. P value result of ANOVA which compared the difference between all groups but also p=0.68 when FMT (all three arms) compared to placebo. FMT (with or without antibiotic pretreatment) was not superior to placebo in improving gastrointestinal symptoms in IBS-D. Bacterial engraftment with FMT did not translate into symptom improvement in IBS-D.

Singh, 2021[133]	Number of patients with adequate relief at 10 weeks	I1: 8 I2: 9 I3: 7	C: 11	I1: 2 (25%) I2: 4 (44.4%) I3: 4 (57.1%)	C: 4 (36.4%)	p=0.66	Study had four arms: I1: FMT alone, I2: FMT + pre-treatment Rifaximin, I3: FMT + pre-treatment Ciprofloxacin & Metronidazole, C: placebo. Patients in all groups also given omeprazole for 2d and bowel prep 24hrs before FMT or placebo. Participants had IBS predominant diarrhoea type. Primary outcome was success of FMT engraftment – not our criteria, thus only secondary outcomes reported here. FMT from universal donors, frozen, delivered as a capsule, one treatment of 19x capsules containing 0.75g faecal matter. Trial ended early as the Open Biome capsules were no longer available. P value result of ANOVA which compared the difference between all groups but also p=0.10 when FMT (all three arms) compared to placebo. FMT (with or without antibiotic pretreatment) was not superior to placebo in improving gastrointestinal symptoms in IBS-D. Bacterial engraftment with FMT did not translate into symptom improvement in IBS-D.
Singh, 2021[133]	Number of patients with global improvement at 10 weeks	I1: 8 I2: 9 I3: 7	C: 11	I1: 2 (25%) I2: 3 (33.3%) I3: 2 (28.6%)	C: 2 (18.2%)	p=0.95	Study had four arms: I1: FMT alone, I2: FMT + pre-treatment Rifaximin, I3: FMT + pre-treatment Ciprofloxacin & Metronidazole, C: placebo. Patients in all groups also given omeprazole for 2d and bowel prep 24hrs before FMT or placebo. Participants had IBS predominant diarrhoea type. Primary outcome was success of FMT engraftment – not our criteria, thus only secondary outcomes reported here. FMT from universal donors, frozen, delivered as a capsule, one treatment of 19x capsules containing 0.75g faecal matter. Trial ended early as the Open Biome capsules were no longer available. P value result of ANOVA which

							compared the difference between all groups but also p=0.69 when FMT (all three arms) compared to placebo. FMT (with or without antibiotic pretreatment) was not superior to placebo in improving gastrointestinal symptoms in IBS-D. Bacterial engraftment with FMT did not translate into symptom improvement in IBS-D.
Tkach, 2022b[134]	IBS-SSS score @ 12 weeks	30	29	179.80 (26.1)	189.17 (25.80)	p=0.705	Standard care was recommending FODMAP diet, + Otilonium Bromide + probiotic Reported that score decreased significantly from baseline in both groups. Same for Fatigue Assessment Score (FAS), decreased significantly and no difference between the groups, p=0.515 I was sure from reading the paper, but it is made clearer in the registered protocol (found here https://classic.clinicaltrials.gov/ct2/show/NCT05461833) that FMT group only received FMT and none of the standard care components Conclusion: one FMT is safe and as effective as standard care

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Wu, 2022[132]	Adverse events	222	144	126 (56.8%)	47 (32.6%)	RR 1.20, [0.59–2.47]	Reported in 5 RCTS. Serious adverse events occurred in 3x RCTs (one each) and none were related to FMT. The AEs included abdominal pain, bloating, nausea, and diarrhoea, all transient and self-resolved.

Singh, 2021[133]	Adverse events	I1: 8 I2: 9 I3: 7	C: 11	I1: 1x UTI I2: 1x nasal congestion I3: 1x brain fog, 1x severe headache, 1x genital HSV-1 infection	C: 1x strep pharyngitis		Study had four arms: I1: FMT alone, I2: FMT + pre-treatment Rifaximin, I3: FMT + pre-treatment Ciprofloxacin & Metronidazole, C: placebo. Patients in all groups also given omeprazole for 2d and bowel prep 24hrs before FMT or placebo. Participants had IBS predominant diarrhoea type. Primary outcome was success of FMT engraftment – not our criteria, thus only secondary outcomes reported here. FMT from universal donors, frozen, delivered as a capsule, one treatment of 19x capsules containing 0.75g faecal matter. Trial ended early as the Open Biome capsules were no longer available.
Singh, 2021[133]	No. of patients experiencing at least one adverse event	21	17	19 (90%)	13 (76%)	-	MDRO for inclusion were ESBL-E and/or CPE, if ESBL - patients needed at least one episode requiring abx. Patients randomised to control group received no specific treatment, those in intervention group had oral colistin and neomycin for 5d, a day washout period and followed by FMT, no bowel prep, omeprazole evening before and morning of FMT. Initial protocol specified NG tube as delivery but due to centres struggling w/ recruitment, 2 centres used capsules. Unrelated donors, frozen, one administration of approx. 40g faeces. One patient did not undergo an intervention and was treated as failure; also reported 3x patients did not comply w/ abx. Overall, 104 events of which four were severe, although one considered 'possible' due to intervention (hepatic encephalopathy in a patient with liver cirrhosis) in intervention group and 66 events of which two were severe I control group.

Tkach, 2022b[134]	No. of patients experiencing at least one adverse event	30	-	8 (26.6%)	-	-	Abdominal pain or bloating (x6), diarrhoea (x5), constipation (x3), nausea (x2)

QoL

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Wu, 2022[132]	Mean IBS QoL	206	131	-	-	Mean difference 9.39 [3.86-14.91]	Based on five studies, error in forest plot which says favours placebo but the score is higher in FMT group, thus favouring FMT.
Singh, 2021[133]	Mean (SD) IBS-QoL change at 10 weeks	I1: 8 I2: 9 I3: 7	C: 11	I1: 15.4 (20.8) I2: 19.3 (25.2) I3: −1.2 (7.6)	C: 9.4 (18.4)	p=0.61	Study had four arms: I1: FMT alone, I2: FMT + pre-treatment Rifaximin, I3: FMT + pre-treatment Ciprofloxacin & Metronidazole, C: placebo. Patients in all groups also given omeprazole for 2d and bowel prep 24hrs before FMT or placebo. Participants had IBS predominant diarrhoea type. Primary outcome was success of FMT engraftment – not our criteria, thus only secondary outcomes reported here. FMT from universal donors, frozen, delivered as a capsule, one treatment of 19x capsules containing 0.75g faecal matter. Trial ended early as the Open Biome capsules were no longer available. P value result of ANOVA which compared the difference between all groups but also p=0.47 when FMT (all three arms) compared

							to placebo. FMT (with or without antibiotic pretreatment) was not superior to placebo in improving gastrointestinal symptoms in IBS-D. Bacterial engraftment with FMT did not translate into symptom improvement in IBS-D.
Tkach, 2022b[134]	IBS-QoL @ 12 weeks	30	29	128.79 (18.63)	129.46 (17.88)	p=0.948	

Constipation

Effectiveness of FMT on constipation

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Fang, 2021[145]	Total Effective Rate (2x RCT)	82	81	74	54	RR=1.35 [1.14-1.6] HG: I^2=13%, p=0.28	SR judged as unclear risk of bias, mostly because the RCTs included were not of good quality: no allocation concealment, no blinding, and effect of dropout/loss to follow up not taken into account. Only one study was low risk of bias and included these. Also, this was the only study which followed up for 12weeks (other 4-6 weeks) and this study only reported overall effect (defined as an average increase of one or more spontaneous and complete bowel movements per week), BFSF and Wexner score. Studies used macrogol, PEG or lactulose (n=3) as laxatives. Total effective rate was defined as ≥3 defecations per week + improved stool characteristics + defecation difficulties. There was also one study which was not included in the analysis and reported that 90% in intervention group compared

							to 33.3% in control group receiving only macrogol (p=0.0022)
Fang, 2021[145]	BSFS score (3x RCT)	103	103	NR	NR	Mean difference 1.04 [0.57-1.51] HG: I^2=76%, p=0.02	SR judged as unclear risk of bias, mostly because the RCTs included were not of good quality: no allocation concealment, no blinding, and effect of dropout/loss to follow up not taken into account. Only one study was low risk of bias and included these. Also, this was the only study which followed up for 12weeks (other 4-6 weeks) and this study only reported overall effect (defined as an average increase of one or more spontaneous and complete bowel movements per week), BSFS and Wexner score. Studies used macrogol, PEG or lactulose (n=3) as laxatives. Lowest score = constipation.
Fang, 2021[145]	Wexner score (2x RCT)	73	73	NR	NR	Mean difference -3.25 [-5.58 to -0.92] HG: I^2=92%, p=0.0003	SR judged as unclear risk of bias, mostly because the RCTs included were not of good quality: no allocation concealment, no blinding, and effect of dropout/loss to follow up not taken into account. Only one study was low risk of bias and included these. Also, this was the only study which followed up for 12weeks (other 4-6 weeks) and this study only reported overall effect (defined as an average increase of one or more spontaneous and complete bowel movements per week), BFSF and Wexner score. Studies used macrogol, PEG or lactulose (n=3) as laxatives.
Fang, 2021[145]	KESS score (2x RCT)	80	80	NR	NR	Mean difference -5.65 [-7.2 to -3.69]	SR judged as unclear risk of bias, mostly because the RCTs included were not of good quality: no allocation concealment, no blinding, and effect of dropout/loss to follow up not taken into account. Only one study was low risk of bias and included these. Also, this was the only study which followed

						HG: I^2=0%, p=0.38	up for 12weeks (other 4-6 weeks) and this study only reported overall effect (defined as an average increase of one or more spontaneous and complete bowel movements per week), BFSF and Wexner score. Studies used macrogol, PEG or lactulose (n=3) as laxatives.

Adverse events

No studies

QoL

Author, Year	**Outcome measure**	**Number of participants**		**Outcome**		**Significance**	**Comments**
		Experimental	**Control**	**Experimental**	**Control**		
Fang, 2021[145]	PAC-QOL score (3x RCT)	123	123	NR	NR	Mean difference -18.56 [-26.43 to -10.68] HG: I^2=78%, p=0.01	SR judged as unclear risk of bias, mostly because the RCTs included were not of good quality: no allocation concealment, no blinding, and effect of dropout/loss to follow up not taken into account. Only one study was low risk of bias and included these. Also, this was the only study which followed up for 12weeks (other 4-6 weeks) and this study only reported overall effect (defined as an average increase of one or more spontaneous and complete bowel movements per week), BFSF and Wexner score. Studies used macrogol, PEG or lactulose (n=3) as laxatives.

Preventing hepatic encephalopathy in patients with decompensated cirrhosis

Effectiveness of FMT on hepatic encephalopathy

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Hong, 2022[146]	Number patients who experienced HE recurrence	RCT1: NR RCT2: 10 CS3: 10	RCT1: NR RCT2: 10 CS3: -	RCT1: 0% RCT2: 1 (10%) CS3: 3 (30%)	RCT1: 50% RCT2: 3 (30%) CS3: -	RCT1: p=0.03 RCT2: NS CS3: -	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into consideration. Primary outcome measure was adverse events which was our most important outcome.
Hong, 2022[146]	Mean PHES score change	RCT1: NR	RCT1: NR	RCT1: -3.1	RCT1: 0.00	RCT1: p=0.03	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into consideration. Primary outcome measure was adverse events which was our most important outcome.
Hong, 2022[146]	Mean MELD score change	RCT1: NR	RCT1: NR	RCT1: NR	RCT1: NR	RCT1: p=0.78	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into

							consideration. Primary outcome measure was adverse events which was our most important outcome.
Hong, 2022[146]	Encephal App performance score	RCT2: NR	RCT2: NR	improved post FMT only		RCT2: p = 0.02	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into consideration. Primary outcome measure was adverse events which was our most important outcome.
Hong, 2022[146]	CTP score change	CS3: NR	CS3: -	CS3: (9.5 9–10.75) after vs. 8 (7–8) before	CS3: -	CS3: significant p=NR	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into consideration. Primary outcome measure was adverse events which was our most important outcome.
Hong, 2022[146]	MELD score change	CS3: NR	CS3: -	CS3: 18 (16.25–19) after vs. 15 (14–16) before	CS3: -	CS3: significant p=NR	The data for second RCT seem incorrect. This is meant to say 1 patient with HE in FMT and three in standard care group. HE = hepatic encephalopathy. The review has some limitations, mostly due to inadequate searches which may mean not all studies were retrieved. The review did not seem to take the quality or the study design into consideration. Primary outcome measure was adverse events which was our most important outcome.

Adverse events

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Hong, 2022[146]	Adverse events	RCT1: NR RCT2: 10 CS3: 10	RCT1: NR RCT2: 10 CS3: -	RCT1: yes RCT2: yes CS3: - yes	-	-	RCT1: no death, no serious events, unknown other events, 2x AKI not related to FMT RCT2: no death, no serious events, 1x UTI (K. pneumoniae), 1x pneumonia, 1x alpha 1 antitrypsin infusions following FMT, also one HE post-TIPS not related to FMT CS3: - 1x death (bronchopneumonia), 1x Spontaneous bacterial peritonitis (SBP) @4weeks, unknown other events and 1x SBP @8weeks not related to FMT

QoL

No studies

Metabolic syndrome

Effectiveness of FMT on metabolic syndrome

Author, Year	Outcome measure	Number of participants		Outcome		Significance	Comments
		Experimental	Control	Experimental	Control		
Mocanu, 2021[148]	Mean (SD) HOMA2-IR at 0 vs 6 weeks	I2: 14	C2: 17	I2: 3.16 (3.01) vs 3.77 (3.57) p=0.02	C2: 3.76 (2.01) vs 3.56 (1.81) p=0.8	I2 to C2: mean difference(−24.0 %	Groups were: I1: FMT + high-fermentable fibre I2: FMT + low-fermentable fibre C1: high-fermentable fibre C2: low-fermentable fibre

						(12.0%) p=0.02)	Here comparing only C2 and I2 because other groups were only CBA data.
Mocanu, 2021[148]	Mean (SD) HOMA2-IS at 0 vs 6 weeks	I2: 14	C2: 17	NR	NR	I2 to C2: mean difference HOMA2-IS (27.6% ± 12.3%; P = 0.02)	
Smits, 2018[148]	Mean (SD) HbA1C (mmol/mol) @ 2weeks	10	10	37.4 (3.5)	38.3 (3.9)	p=0.48	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.
Smits, 2018[148]	Mean (SD) glucose (mmol/L) @ 2weeks	10	10	5.9 (0.6)	6.0 (0.6)	p=0.62	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.
Smits, 2018[148]	Mean (SD) insulin (miU/L) @ 2weeks	10	10	140.7 (64.8)	121.0 (76.5)	p=0.78	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.

Smits, 2018[149]	Mean (SD) total cholesterol (mmol/l) @ 2weeks	10	10	5.3 (0.9)	5.0 (0.7)	p=0.94	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.
Smits, 2018[149]	Mean (SD) LDL (mmol/l) @ 2weeks	10	10	3.5 (0.8)	3.2 (0.5)	p=0.85	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.
Smits, 2018[149]	Mean (SD) HDL (mmol/l) @ 2weeks	10	10	1.2 (0.2)	1.2 (0.2)	p=0.47	All data were secondary and only reported in supplement. Participants were obese w/ metabolic syndrome defined as glucose metabolism impairment + at least 2 of the other 4 criteria. Intervention was a single FMT from a vegan, healthy, lean donor. Control was autologous FMT. Follow up was only 2 weeks.

Adverse events

No studies

QoL

No studies

Obesity

Effectiveness of FMT on obesity

Author, Year	Outcome measure	Number of participants	Outcome	Significance	Comments

		Experimental	Control	Experimental	Control		
Obesity							
Allegretti, 2020c[154]	Mean BMI change from baseline to 12w	11	11	0.3 (1.3)	0.7 (1.2)	p=0.51	Data obtained from personal communication with first author. P value obtained from social science statistics online calculator.

Adverse events

No studies

QoL

No studies

Data from excluded studies

Metabolic syndrome	
Koopen, 2021[150]	All participants started Mediterranean diet 2weeks (T-2) before FMT (T0), continued diet for six weeks post-FMT (T6) and stopped for the next 6 weeks (T12). Intervention was FMT from a healthy normal weight donor, control was autologous FMT. Primary outcome was composition of the faeces but secondary outcomes were relevant. Follow up for 12 weeks but the data for secondary outcomes only available up to T6. These are not really RCT data: compared before-after for intervention and control group but no direct comparison between intervention and control. As summary – For both groups: there were observed positive changes for weight, cholesterol (total, LDL and HDL) and HbA1c but these already improved in the first 2 weeks on Mediterranean diet bur before FMT. For both groups: other parameters e.g. HOMA-IR, fasting glucose and insulin did not improve after FMT but did improve from T-2 to T0. Therefore it is the diet that likely made a difference, not FMT – however difficult to tell due to indirect comparison.
Craven, 2020[151]	Median (IQR) HOMA-IR at 0 vs 6 weeks did not improve in either group
Yu, 2020[152]	FMT or placebo administered 1x/week for 6 weeks. Study authors reported that the engraftment of FMT was successful but that this did not translate to any benefits. Insulin sensitivity measured by hyperinsulinemic-euglycemic clamp technique. There were no differences between the FMT and placebo groups in change in HOMA-IR, fat mass, fasting lipids, or resting energy expenditure over the 12-week study. Statistically significant difference in HbA1c but clinically, this was a negligent reduction (0.1%).
De Groot, 2019[153]	Reason: both had FMT – both groups after FMT observed decrease in insulin sensitivity

Multi-Drug Resistant Organisms							
Huttner, 2019[159]	No. of patients w/ no MDRO detected in faeces @ 35-48d	22	17	9 (41%)	5 (29%)	OR for decolonisation success: 1.7 [0.4 - 6.4]	MDRO for inclusion were ESBL-E and/or CPE, if ESBL - patients needed at least one episode requiring abx. Patients randomised to control group received no specific treatment, those in intervention group had oral colistin and neomycin for 5d, a day washout period and followed by FMT, no bowel prep, omeprazole evening before and morning of FMT. Initial protocol specified NG tube as delivery but due to centres struggling w/ recruitment, 2 centres used capsules. Unrelated donors, frozen, one administration of approx. 40g faeces. One patient did not undergo an intervention and was treated as failure; also reported 3x patients did not comply w/ abx.
Bilsen, 2022[161]	Since 2020, seven highly heterogenous, small, nonrandomised cohort studies and five case reports have been published. In line with previous literature, decolonisation rates ranged from 20 to 90% between studies and were slightly higher for carbapenem-resistant Enterobacteriaceae than vancomycin-resistant Enterococcus. Despite moderate decolonisation rates in two studies, a reduction in MDRO bloodstream and urinary tract infections was observed. Although a number of smaller cohort studies show some effect of FMT for MDRO decolonisation, questions remain regarding the true efficacy of FMT (taking spontaneous decolonisation into account), the optimal route of administration, the role of antibiotics pre and post-FMT and the efficacy in different patient populations. The observed decrease in MDRO infections post-FMT warrants further research.						

Appendix 5 – GRADE tables

Effectiveness of FMT

General population

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
General population											
Outcome: meta-analysis RR for success FMT vs standard treatment or placebo											
6[2,12-16]	RCT[2,12-16]	Moderate risk of bias	Some inconsistency	No indirectness	No imprecision	4/6 studies moderate risk, 2/6 low risk of bias, high heterogeneity due to different methods and comparison groups	101/119 (85%)	54/142 (38%)	2.22 [1.46-3.37]	-	High
Outcome: adverse events: number of patients developing at least one adverse event											
6[2,12-16]	RCT[2,12-16]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	4/6 studies moderate risk, 2/6 low risk of bias	10/24 (42%)	C1:NR/16 C2:NR/24	NS	-	High
							20/21 (95%)	21/21 (100%)	p=1.00	-	
							15/16 (94%)	NR	NR	-	
							19/20 (94%)	NR	NR	-	
							NR	NR	NS	-	
							NR	NR	NS	-	
Outcome: QoL											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with severe, complicated or fulminant CDI

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Effectiveness in patients with severe CDI											
1[17]	Case series[17]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	15	-	5 (33%)	-	Low
Outcome: effectiveness in severe CDI: success vs failure											
7[18-24]	Retrospective cohort[18] Case control[19-24]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0/7 reported effect	-	See data in tables	-	Moderate
Outcome: effectiveness in refractory or fulminant CDI vs recurrent CDI											
5[25-29]	Retrospective cohort[25] Case control[26-29]	Moderate risk of bias	Some inconsistency	No indirectness	No imprecision	-	3/5 reported effect	-	See data in tables	-	Inconsistent
Outcome: effectiveness pseudomembranous CDI: success vs failure											
2[19,22]	Case control[19,22]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/2 reported effect	-	See data in tables	-	Low
Outcome: adverse events in patients with severe CDI											
1[19,22]	Case series[19,22]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	15	-	8 (53%)	-	Low
Outcome: severe CDI: risk of adverse events (death)											
1[18]	Retrospective cohort[18]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1 patient died (not related)	0	-	-	Low
Outcome: risk of adverse events in patients with severe, refractory or fulminant CDI											

3[17,18,25]	Retrospective cohort[18,25] Case series[17]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0	0	-	-	Low
Outcome: pseudomembranous: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: severe CDI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: recurrent, refractory or fulminant CDI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: pseudomembranous: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with first episode of CDI

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Effectiveness in patients with first episode of CDI – number of patients achieving cure after 2x FMT @ 4-8 weeks											
2[13,30]	RCT[13] Case series[30]	No risk of bias	No inconsistency	No indirectness	Serious imprecision	Small sample size	13/14 (93%)	4/11 (36%)	RR=0.112 [0.016 to 0.7817], p=0.027	-	Moderate
		Very serious risk of bias					98% cure	-			
Outcome: Effectiveness in patients with first episode of CDI compared to other patients											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Patients with first episode of CDI – number of patients with adverse events											
1[13]	RCT[13]	No risk of bias	No inconsistency	No indirectness	Serious imprecision	Small sample size	14/14 (100%)	11/11 (100%)	-	-	Moderate

0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Patients with first episode of CDI – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Patients with Inflammatory Bowel Disease (IBD)

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Patients with IBD											
Outcome: Effectiveness: IBD patients – number of patients achieving cure											
5[31-35]	Case series[31-35]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	Results: studies based on 1 FMT, 1 or more FMT	145	-	116 (80%)	-	Low
							49		44 (90%)		
							18		17 (94%)		
							35		32 (91%		
							105		75 (71%)		
Outcome: Effectiveness: number of patients with IBD: success vs failure											
11[19,22,23,26 28,36-41]	Retrospective cohort[28,36] Case control[19,22,23, 26,37-39] Cross-sectional[40,41]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1/11 reported -ve effect: p=0.01 M: OR for failure: 4.34 [1.24-15.15]	-	See data in tables	-	Moderate
Outcome: Adverse events: IBD patients – number of patients with IBD flare											
1[31]	Case series[31]	Very serious	No inconsistency	No indirectness	No imprecision	-	145	-	11 (7.6%)	-	Low

		risk of bias									
Outcome: Adverse events: number of patients with severe adverse events											
3[31,33,34]	Case series[31,33,34]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	145 18	-	3 (2%) 0 (0%)	-	Low
Outcome: IBD: risk of adverse events IBD patients vs no IBD											
2[28,36]	Retrospective cohort[28,36]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0 (0%) 8/21 (38%)	0 (0%) -	-	-	Low
Outcome: IBD: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: IBD patients vs no IBD– quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Immunosuppressed or immunocompromised patients

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in immunocompromised patients – number of patients achieving cure after one FMT											
2[13,14]	Case series[13,14]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	17 11	-	14 (82%) 11 (100%)	-	Low
Outcome: effectiveness in immunocompromised patients – number of patients achieving cure after one or more FMT											
2[13,14]	Case series[13,14]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	17 11	-	16 (94%) 11 (100%)	-	Low

Outcome: effectiveness: number of patients immunocompromised/immunosuppressed: success vs failure											
15[19,21-26,28,37-41,44]	Case control[19,21-26,37-39,44] Cross-sectional[28,40,41]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	4/15 reported less effective in IS/IC patients	-	See data in tables	-	Moderate
Outcome: immunocompromised/immunosuppressed: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Immunocompromised patients vs not – number of patients with adverse events											
2[42,43]	Case series[42,43]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	17 11	-	0 (0%) 0 (0%)	-	Low
Outcome: immunocompromised/immunosuppressed: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Immunocompromised patients vs not – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Cancer patients

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Effectiveness in cancer patients – number of patients achieving cure after FMT											
2[45,46]	Case series[45,46]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	10 19	-	8 (80%) 16 (84%)	-	Low
Outcome: effectiveness: number of patients with cancer: success vs failure											

3[19,21,40]	Case control[19,21] Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/3 reported effect	-	See data in tables	-	Low
Outcome: Cancer patients – number of patients with adverse events											
2[45,46]	Case series[45,46]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	10 19	-	0 infection 4 fever 2 other 3 (16%)	-	Low
Outcome: cancer: risk of adverse events cancer vs no cancer patients											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: cancer: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Cancer patients vs no cancer – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Post-transplant patients

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Post-transplant patients – number of patients achieving cure after one FMT @1 month											
1[47]	Case series[47]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	94	-	60 (63.8%)	-	Low
Outcome: Post-transplant patients – number of patients achieving cure after one FMT @3 months											
1[47]	Case series[47]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	92	-	54 (58.7%)	-	Low

Outcome: Post-transplant patients – number of patients achieving cure after at least one FMT @3 months											
1[47]	Case series[47]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	92	-	84 (91.3%)	-	Low
Outcome: effectiveness in post-transplant patients vs no transplant											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Post-transplant patients – number of patients with adverse events											
1[47]	Case series[47]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	94	-	21 (22.3%)	-	Low
Outcome: Post-transplant patients – number of patients with severe adverse events											
1[47]	Case series[47]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	94	-	3 (3.2%)	-	Low
Outcome: Post-transplant patients – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Patients with liver disease

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with liver failure – number of patients achieving cure after one FMT @ 8 weeks											
1[48]	Case series[48]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	63	-	54 (86%)	-	Low
Outcome: Patients with liver failure – number of patients achieving cure after one or more FMT @ 8 weeks											

1[48]	Case series[48]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	63	-	62 (98.4%)	-	Low
Outcome: effectiveness: number of patients with liver disease: success vs failure											
3[38,40,49]	Retrospective cohort[49] Case control[38] Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/3 reported effect	-	See data in tables	-	Low
Outcome: liver disease: number of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Patients with liver failure vs no failure – number of patients with adverse events											
1[48]	Case series[48]	Very serious risk of bias	No inconsistency	No indirectness	No imprecision	-	63	-	30 (47.6%)	-	Low
Outcome: liver disease: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Patients with liver failure vs no failure – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Patients with kidney disease

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with kidney disease											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: effectiveness: number of patients with kidney disease: success vs failure											

4[19,23,38,40]	Case control[19,23,38] Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	1/4 reported effect	-	See data in tables	-	Low
Outcome: kidney disease: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: kidney disease vs no disease: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: kidney disease: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: kidney disease vs no disease: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with diabetes mellitus

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with diabetes mellitus: success vs failure											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: effectiveness: number of patients with diabetes mellitus: success vs failure											
3[19,39,40]	Case control[19,39] Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/3 reported effect	-	See data in tables	-	Low
Outcome: diabetes mellitus: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: diabetes mellitus vs no DM: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: diabetes mellitus: quality of life											

0	-	-	-	-	-	-	-	-	-	-	-
Outcome: diabetes mellitus vs no DM: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with cardiovascular disease

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with cardiovascular disease											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: effectiveness: number of patients with cardiovascular disease: success vs failure											
1[39]	Case control[39]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: cardiovascular disease: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: cardiovascular disease vs no CVD: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: cardiovascular disease: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: cardiovascular disease vs no CVD: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with urinary tract infections

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with urinary tract infections											

0	-	-	-	-	-	-	-	-	-	-	-
Outcome: effectiveness: number of patients with urinary tract infections: success vs failure											
1[23]	Case control[23]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/0 reported effect	-	See data in tables	-	Low
Outcome: urinary tract infections: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: urinary tract infections vs no UTI: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: urinary tract infections: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: urinary tract infections vs no UTI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Patients with COVID-19 infection

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in patients with COVID-19 – number of patients achieving cure after one FMT @ 8 weeks											
1[50]	Retrospective cohort[50]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	46	40	45 (98%)	23 (58%)	Low
Outcome: effectiveness: patients with COVID-19 vs no COVID-19											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Patients with COVID-19– number of patients with adverse events											

1[50]	Retrospective cohort[50]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	46	-	0 (0%)	-	Low
Outcome: Patients with COVID-19 vs no COVID-19– number of patients with adverse events											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Patients with COVID-19 – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Patients with COVID-19 vs no COVID-19 – quality of life											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Patients with other conditions

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in other conditions											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: effectiveness: number of patients with other conditions											
2[19,22]	Case control[19,22]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	1 reported benefit for neurological conditions	-	See data in tables	-	Low
Outcome: other conditions: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: other conditions: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: other conditions: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: other conditions: quality of life											

0	-	-	-	-	-	-	-	-	-	-	-

Patients with multiple comorbidities

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: effectiveness in people with multiple comorbidities											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: comorbidities: success vs failure											
6[20,27,37,44,51,52]	Retrospective cohort[51] Case control[20,27,37,44] Cross-sectional[52]	Moderate risk of bias	Some inconsistency	No indirectness	No imprecision	-	2/6 reported higher CCI associated w/ risk of failure	-	See data in tables	-	Low
Outcome: comorbidities: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: people with comorbidities vs no comorbidities: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: comorbidities: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: people with comorbidities vs no comorbidities: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Recipient factors (section 4.2)

Demographic factors

Age

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: age: success vs failure											
15[19-23,26-28,37-40,44,68,69]	Retrospective cohort[68] Case control[19-23,26,27,37,39,44,69] Cross-sectional[28,40]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	13/15 showed no effect, 1 showed effect but marginal, 1 showed no effect on multivariate analysis	-	See data in tables	-	Moderate
Outcome: age: risk of adverse events											
1[68]	Retrospective cohort[68]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	7/19 (36.8%)	16/39 (41%)	p=0.45	-	Low
Outcome: age: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Sex

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: sex: success vs failure											
12[19-21,23,26-28,37-40,44]	Case control[19-21,23,26,27,37-39,44] Cross-sectional[28,40]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0/12 reported effect	-	See data in tables	-	Moderate
Outcome: sex: risk of adverse events											

0	-	-	-	-	-	-	-	-	-	-	-
Outcome: sex: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Body mass index

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: body mass index: success vs failure											
2[19,39]	Case control[19,39]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/2 reported effect	-	See data in tables	-	Low
Outcome: body mass index: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: body mass index: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Factors associated with CDI

Number of CDI episodes before FMT

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: number of CDI before FMT: success vs failure											
8[19-21,23,28,38,44,69]	Case control[19-21,23,38,44,69] Cross-sectional[28]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/8 reported effect	-	See data in tables	-	Moderate

Outcome: median number of days from CDI diagnosis until FMT: success vs failure											
1[27]	Case control[27]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	15	8	p=0.044	-	Low
Outcome: number of CDI before FMT: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: number of CDI before FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Hospitalisation due to CDI

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: hospitalisation due to CDI: success vs failure											
2[19,38]	Case control[19,38]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/2 reported an effect	-	See data in tables	-	Low
Outcome: hospitalisation due to CDI: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: hospitalisation due to CDI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Antibiotics used for treatment of CDI before FMT

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Antibiotics used for treatment of CDI before FMT: success vs failure											
5[19,22,39,40,69]	Case control[19,22,39,40,69]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	2/5 reported effect	-	See data in tables	-	Low

Outcome: Antibiotics used for treatment of CDI before FMT: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: Antibiotics used for treatment of CDI before FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

C. difficile strain

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: C. difficile strain: success vs failure											
3[21,23,41]	Case control[21,23] Cross-sectional[41]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/3 reported effect	-	See data in tables	-	Low
Outcome: C. difficile strain: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: C. difficile strain: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Healthcare-acquired CDI

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: healthcare-acquired CDI: success vs failure											
1[20]	Case control[20]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/0 reported effect	-	See data in tables	-	Low
Outcome: healthcare-acquired CDI: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-

Outcome: healthcare-acquired CDI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Other risk factors

On Proton Pump Inhibitors and other anti-secretory medications

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on PPI: success vs failure											
10[19,20,22,23,26,28,37,38,40,41]	Case control[19,20,22,23,26,37,38] Cross-sectional[28,40,41]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/10 reported PPI a risk factor for recurrence	-	See data in tables	-	Moderate
Outcome: on PPI: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: on PPI: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Corticosteroids

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on steroids: success vs failure											
1[40]	Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/0 reported effect	-	See data in tables	-	Low
Outcome: on steroids: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-

Outcome: on steroids: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Lactulose

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on lactulose: success vs failure											
1[40]	Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	1/1 reported effect	-	See data in tables	-	Low
Outcome: on lactulose: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: on lactulose: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Probiotic use

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on probiotics: success vs failure											
2[19,22]	Case control[19,22]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/2 reported effect	-	See data in tables	-	Low
Outcome: on probiotics: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: on probiotics: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Non-CDI antibiotic use

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on non-CDI antibiotics before FMT: success vs failure											
3[23,26,40]	Case control[23,26] Cross-sectional[40]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/3 reported effect	-	See data in tables	-	Low
Outcome: on non-CDI antibiotics before FMT: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: on non-CDI antibiotics before FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Narcotics

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: on narcotics before FMT: success vs failure											
1[39]	Case control[39]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: on narcotics: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: on narcotics before FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Other risk factors

Hospitalised at or before FMT

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: hospitalisation before or at the time of FMT: success vs failure											
4[22,26,28,39]	Case control[22,26,39] Cross-sectional[28]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/4 reported effect	-	See data in tables	-	Low
Outcome: hospitalisation before or at the time of FMT: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: hospitalisation before or at the time of FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Blood biomarkers

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: blood biomarkers: success vs failure											
3[20,28,51]	Retrospective cohort[51] Case control[20] Cross-sectional[28]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	2/3 reported effect	-	See data in tables	-	Low
Outcome: blood biomarkers: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: blood biomarkers: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Other risk factors

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: other risk factors: success vs failure											
4[27,38,41,69]	Case control[27,38,69] Cross-sectional[41]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/4 reported effect	-	See data in tables	-	Low
Outcome: other risk factors: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: other risk factors: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Donor factors (section 4.3)

Related vs not related donor

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: related vs not related donor: success vs failure											
3[22,24,52]	Case control[22,24] Cross-sectional[52]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	1/3 reported effect	-	See data in tables	-	Low
Outcome: related vs not related donor: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: related vs not related donor: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Age of the donor

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: age of the donor: success vs failure											
2[23,27]	Case control[23,27]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/2 reported effect	-	See data in tables	-	Low
Outcome: age of the donor: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: age of the donor: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Sex of the donor

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: sex of the donor: success vs failure											
1[23]	Case control[23]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: sex of the donor: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: sex of the donor: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Amount of stool produced

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: amount of stool produced: success vs failure											
1[27]	Case control[27]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: amount of stool produced: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: amount of stool produced: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Microbiome composition of the donor stool

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: microbiome composition of stool produced: success vs failure											
1[27]	Case control[27]	Serious risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: microbiome composition of stool produced: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: microbiome composition of stool produced: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Preparation factors (section 4.4)

Fresh vs frozen stool

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	

Outcome: fresh vs frozen: success vs failure											
6[19,21,27,28,29,69]	Case control[19,21,27,29] Cross-sectional[28,69]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/6 reported effect	-	See data in tables	-	Moderate
Outcome: fresh vs frozen: risk of adverse events											
1[29]	Case control[29]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/87 (0%)	2/31 (6.4%)	Not tested	-	Low
Outcome: fresh vs frozen: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Stool frozen at -20°C vs -80°C

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: frozen at -20 or -80C: success vs failure											
1[95]	Retrospective cohort[95]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/1 reported effect	-	See data in tables	-	Low
Outcome: frozen at -20 or -80C: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: frozen at -20 or -80C: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Lyophilised stool

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Lyophilised stool: success vs failure											

3[96-98]	Case series[96-98]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	Cure at least 78.9%	-	See data in tables	-	Low
Outcome: Lyophilised stool: risk of adverse events											
1[97]	Case series[97]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0	-	Not tested	-	Low
Outcome: Lyophilised stool: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Type of capsule

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: supernatant and sediment capsule: success vs failure											
1[99]	RCT[99]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	15/16 (94%)	8/12 (67%)	p=0.133	-	Low
Outcome: supernatant and sediment capsule: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: supernatant and sediment capsule: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Processing time

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: processing time: success vs failure											

2[23,100]	Prospective Cohort[100] Case control[23]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/2 reported effect		See data in tables	-	Low
Outcome: processing time: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: processing time: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Storage time

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: storage time: success vs failure											
3[23,95,100]	Prospective Cohort[100] Retrospective Cohort[95] Case control[23]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	0/3 reported effect		See data in tables	-	Low
Outcome: storage time: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: storage time: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Administration factors (section 4.5)

Route of delivery

Colonoscopy vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	

Outcome: colonoscopy vs other routes of delivery: success vs failure											
9[19,21,25,26,38,39,96,106,107]	Retrospective cohort[25,38,106,107] Case control[19,21,26,39] Cross-sectional[96]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	3/9 (33%)	-	See data in tables	-	Moderate
Outcome: colonoscopy vs other routes of delivery: risk of adverse events											
3[25,38,107]	Retrospective cohort[25,38,107]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	Total 3	0	See data in tables	-	Low
Outcome: colonoscopy vs other routes of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Enema vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: enema vs other routes of delivery: success vs failure											
3[26,108,109]	RCT[108] Retrospective cohort[109] Case control[28]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1/3 enema less efficient	-	See data in tables	-	Inconsistent
Outcome: enema vs other routes of delivery: risk of adverse events											
2[42,109]	Retrospective cohort[109] Case series[42]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1 patient more likely to vomit 1 patient VRE BSI	0	See data in tables	-	Very low
Outcome: enema vs other routes of delivery: quality of life											

0	-	-	-	-	-	-	-	-	-	-	-

Lower GI (unspecified) vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: lower GI (unspecified) vs other routes of delivery: success vs failure											
3[23,27,110]	Prospective cohort[110] Case control[23,27]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1/3 lower GI more successful	-	See data in tables	-	Very low
Outcome: lower GI (unspecified) vs other routes of delivery: risk of adverse events											
1[110]	Prospective cohort[110]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0	0	See data in tables	-	Very low
Outcome: lower GI (unspecified) vs other routes of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Upper GI vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: upper vs other routes of delivery: success vs failure											
9[19,21,23,25,26,27,106,107,110]	Prospective cohort[110] Retrospective cohort[24,106,107]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	4/9 showed upper GI less effective	-	See data in tables	-	Low

	Case control[19,21,23,26,27]										
Outcome: upper (NG) vs upper ND: success vs failure											
1[111]	UBA[111]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	No significant difference	-	See data in tables	-	Low
Outcome: upper vs other routes of delivery: risk of adverse events											
4[25,106,107,110]	Prospective cohort[110] Retrospective cohort[25,106,107]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	1 for worse 1 for better	0	See data in tables	-	Low
Outcome: upper vs other routes of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Oral capsules vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: oral capsules vs other routes of delivery: success vs failure											
9[23,26,38,96,106-110]	RCT[108] Prospective cohort[110] Retrospective cohort[38,106,107,109] Case control[23,26] Cross-sectional[96]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	3/9 oral worse 1/9 oral better	-	See data in tables	-	Low
Outcome: oral capsules vs other routes of delivery: risk of adverse events											

6[38,43,54,106,107,110]	Prospective cohort[110] Retrospective cohort[38,106,107] Series[43,54]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	Inconsistent	0	See data in tables	-	Low
Outcome: oral capsules vs other routes of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Bidirectional vs other methods

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: bidirectional vs other routes of delivery: success vs failure											
1[104]	Retrospective cohort[104]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	Better than other methods	-	See data in tables	-	Very low
Outcome: bidirectional vs other routes of delivery: risk of adverse events											
1[104]	Retrospective cohort[104]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	Only one AE	0	See data in tables	-	Very low
Outcome: bidirectional vs other routes of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Other factors

Location of delivery

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: location of delivery: success vs failure											
1[39]	Case control[39]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	More successful if delivered to ileum	-	See data in tables	-	Very low
Outcome: location of delivery: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: location of delivery: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Volume of FMT infused

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: volume of FMT: success vs failure											
2[26,39]	Case control[26,39]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	No effect	-	See data in tables	-	Very low
Outcome: volume of FMT: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: volume of FMT: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

PPI use

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: PPI use: success vs failure											
1[21]	Case control[21]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	UV: OR=NR, p=0.114	-	See data in tables	-	Very low
Outcome: PPI use: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: PPI use: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Antimotility agents used

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: antimotility agent use: success vs failure											
2[21,39]	Case control[21,39]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	No effect	-	See data in tables	-	Very low
Outcome: antimotility agent use: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: antimotility agent use: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Bowel lavage/prep used

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: bowel prep/lavage used: success vs failure											
3[21,22,39]	Case control[21,22,39]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	2/3 better outcomes with good bowel prep	-	See data in tables	-	Very low
Outcome: bowel prep/lavage used: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: bowel prep/lavage used: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Post-FMT factors (section 4.6)

Use of non-CDI antibiotics

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: use of non-CDI antibiotics: success vs failure											
3[19,22,23]	Case control[19,22,23]	Moderate risk of bias	Some inconsistency	No indirectness	No imprecision	-	2/3 increased risk	-	See data in tables	-	Low
Outcome: use of non-CDI antibiotics: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: use of non-CDI antibiotics: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Other post-FMT factors

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: other post-FMT factors: success vs failure											
3[15,22,23]	Case control[15,22,23]	Moderate risk of bias	Some inconsistency	No indirectness	No imprecision	-	0/0 showed effect	-	See data in tables	-	Very low
Outcome: other post-FMT factors: risk of adverse events											
0	-	-	-	-	-	-	-	-	-	-	-
Outcome: other post-FMT factors: quality of life											
0	-	-	-	-	-	-	-	-	-	-	-

Prophylactic FMT (section 4.7)

No studies

FMT for non-CDI indications (section 4.8)

Ulcerative colitis

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Ulcerative colitis: number of patients achieving remission											
2[116-118]	1xSR[116] 1xRCT[117,118]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	-	-	OR=4.11 [2.19-7.72] I^2=0%, p=0.82	-	Moderate
							12/21 (57%)	8/22 (36%)	NS		
Outcome: Ulcerative colitis: number of patients experiencing adverse events											

2[116,117]	1xSR[116] 1xRCT[117]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	-	-	OR=1.38 [0.58-3.30] p=0.46	-	High
							12/21 (57%)	13/22 (59%)	NS		
Outcome: Ulcerative colitis: number of patients experiencing severe adverse events											
2[116,118]	1xSR[116] 1xRCT[118]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	4 (19%)	1 (5%)	NS	-	High
Outcome: Ulcerative colitis: QoL											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Crohn's Disease

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Crohn's disease: Number of patients experiencing recurrence of flares											
1[129]	RCT[129]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	6/9 (67%)	3/8 (38%)	p=0.23	-	Low
Outcome: Crohn's disease: Number of patients with steroid-free clinical remission											
1[129]	RCT[129]	Moderate risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	4/9 (44.4%)	7/8 (88%)	p=NR	-	Low
Outcome: Crohn's disease: adverse events											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Crohn's disease: PAC-QoL											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Pouchitis

	Quality assessment	Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Pouchitis: total effective rate											
2[130,131]	RCT[130,131]	Serious risk of bias	No inconsistency	No indirectness	Serious imprecision	-	0/4 (0%) 4/13 (31%)	0/2 (0%) 5/13 (38%)	n/a p=0.183	-	Low
Outcome: Pouchitis: number of patients with adverse events											
2[130,131]	RCT[130,131]	Serious risk of bias	No inconsistency	No indirectness	Serious imprecision	-	0/4 (0%) 3/13 (23%)	0/2 (0%) 1/13 (8%)	n/a -	-	Low
Outcome: Pouchitis: QoL											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Irritable Bowel Syndrome

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Irritable Bowel Syndrome number of patients not achieving cure @ 12 weeks											
1[132]	SR[132]	Serious risk of bias	No inconsistency	No indirectness	Serious imprecision	-	105/290	111/186	RR 0.75, [0.43–1.31] I^2=87%	-	Inconsistent
Outcome: Irritable Bowel Syndrome number of patients not sustaining cure @ 1 year											
1[132]	SR[132]	Serious risk of bias	No inconsistency	No indirectness	Serious imprecision	-	80/121	55/73	RR 0.90 [0.72-1.12]	-	Inconsistent
Outcome: Irritable Bowel Syndrome: mean IBS-SSS change at 12 weeks											
1[133,134]	RCT[133,134]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	I1: −32.3 (124.8) I2: −85.3 (94.6)	C: −93.4 (97.1)	p=0.55	-	Inconsistent

							I3: −114 (149.3)				
							179.8 (26.1)	189.2 (25.8)	p=0.705		
Outcome: Irritable Bowel Syndrome: number of patients with adequate relief at 10 weeks											
1[133]	RCT[133]	Moderate risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	I1: 2 (25%) I2: 4 (44.4%) I3: 4 (57.1%)	C: 4 (36.4%)	p=0.66	-	Inconsistent
Outcome: Irritable Bowel Syndrome: number of patients with global improvement at 10 weeks											
1[133]	RCT[133]	Moderate risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	I1: 2 (25%) I2: 3 (33.3%) I3: 2 (28.6%)	C: 2 (18.2%)	p=0.95	-	Inconsistent
Outcome: Irritable Bowel Syndrome: number of patients experiencing at least adverse event											
2[132-134]	SR[132] RCT[133,134]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	126 (56.8%)	47 (32.6%)	RR 1.20, [0.59–2.47]	-	High
		Moderate risk of bias					19 (90%)	13 (76%)	-		
							8 (27%)	-	-		
Outcome: Irritable Bowel Syndrome: number of patients with any infection											
1[133]	RCT[133]	Moderate risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	I1: 1 I2: 1 I3: 3	C: 1	-	-	High
Outcome: Irritable Bowel Syndrome: mean change in IBS-QoL											
2[132,133]	SR[132] RCT[133]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	NR	NR	Mean difference 9.39 [3.86-14.91]	-	High

		Moderate risk of bias					I1: 15.4 (20.8) I2: 19.3 (25.2) I3: −1.2 (7.6)	C: 9.4 (18.4)	p=0.61		
							128.8 (18.6)	129.5 (18.9)	p=0.948		

Constipation

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Constipation: total effective rate											
1[145]	SR[145]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	74/82	54/81	RR=1.35 [1.14-1.6] HG: I^2=13%, p=0.28	-	Low
Outcome: Constipation: BSFS score											
1[145]	SR[145]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	NR	NR	Mean difference 1.04 [0.57-1.51] HG: I^2=76%, p=0.02	-	Low
Outcome: Constipation: Wexner score											
1[145]	SR[145]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	NR	NR	Mean difference -3.25 [-5.58 to -0.92] HG:	-	Low

									I^2=92%, p=0.0003		
Outcome: Constipation: KESS score											
1[145]	SR[145]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	NR	NR	Mean difference -5.65 [-7.2 to -3.69] HG: I^2=0%, p=0.38	-	Low
Outcome: Constipation: adverse events											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: Constipation PAC-QoL											
1[145]	SR[145]	Moderate risk of bias	Serious inconsistency	No indirectness	No imprecision	-	NR	NR	Mean difference -18.56 [-26.43 to -10.68] HG: I^2=78%, p=0.01	-	Low

Preventing hepatic encephalopathy in patients with decompensated cirrhosis

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: number of patients who experienced HE recurrence											
1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	RCT1: 0% RCT2: 1 (10%) CS3: 3 (30%)	RCT1: 50% RCT2: 3 (30%) CS3: -	RCT1: p=0.03 RCT2: NS CS3: -	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: mean PHES score change											

1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	RCT1: -3.1	RCT1: 0.00	RCT1: p=0.03	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: mean MELD score change											
1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	RCT1: NR CS3: 18 (16.25–19) after vs. 15 (14–16) before	RCT1: NR CS3: -	RCT1: p=0.78 CS3: significant p=NR	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: Encephal App performance score											
1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	improved post FMT only		RCT2: p = 0.02	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: CTP score change											
1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	CS3: (9.5 9–10.75) after vs. 8 (7–8) before	CS3: -	CS3: significant p=NR	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: adverse events											
1[146]	SR[146]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	RCT1: yes RCT2: yes CS3: - yes	-	See tables for data	-	Low
Outcome: Preventing hepatic encephalopathy in patients with decompensated cirrhosis: QoL											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Metabolic syndrome

	Quality assessment						Results	Effect	Quality

Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Metabolic syndrome: mean HOMA2-IR change 0 vs 6 weeks											
2[148]	RCT[148]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	I2: 3.16 (3.01) vs 3.77 (3.57) p=0.02	C2: 3.76 (2.01) vs 3.56 (1.81) p=0.8	I2 to C2: mean difference(−24.0% (12.0%) p=0.02)	-	Low
Outcome: Metabolic syndrome: mean HOMA2-IS change 0 vs 6 weeks											
2[148]	RCT[148]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	NR	NR	I2 to C2: mean difference HOMA2-IS (27.6% ± 12.3%; P = 0.02)	-	Low
Outcome: Metabolic syndrome: mean HbA1C at 2 weeks											
2[149]	RCT[149]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	37.4 (3.5)	38.3 (3.9)	p=0.48	-	Low
Outcome: Metabolic syndrome: mean glucose at 2 weeks											
2[148,149]	RCT[148,149]	Serious risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	5.9 (0.6)	6.0 (0.6)	p=0.62	-	Low
Outcome: Metabolic syndrome: mean insulin at 2 weeks											
2[148,149]	RCT[148,149]	Serious risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	140.7 (64.8)	121.0 (76.5)	p=0.78	-	Low
Outcome: Metabolic syndrome: mean total cholesterol at 2 weeks											
2[148,149]	RCT[148,147]	Serious risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	5.3 (0.9)	5.0 (0.7)	p=0.94	-	Low
Outcome: Metabolic syndrome: mean LDL cholesterol at 2 weeks											

2[148,149]	RCT[148,149]	Serious risk of bias	No inconsistency	No indirectness	No imprecision	-	3.5 (0.8)	3.2 (0.5)	p=0.85	-	Low
Outcome: Metabolic syndrome: mean HDL cholesterol at 2 weeks											
2[148,149]	RCT[148,149]	Serious risk of bias	No inconsistency	Moderate indirectness	No imprecision	-	1.2 (0.2)	1.2 (0.2)	p=0.47	-	Low

Obesity

Number of studies	Quality assessment						Results		Effect		Quality
	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Exposed	Control	Relative	Absolute	
Outcome: Effectiveness in obese patients: Mean change in BMI from baseline to 12-week follow up: FMT vs placebo											
2[154]	RCT[154]	Moderate risk of bias	No inconsistency	No indirectness	No imprecision	-	0.2 (1.2)	0.7 (1.3)	p=0.51	-	Moderate
Outcome: Adverse events in obese patients FMT vs placebo											
0	-	-	-	-	-	-	-	-	-	-	No evidence
Outcome: QoL in obese patients FMT vs placebo											
0	-	-	-	-	-	-	-	-	-	-	No evidence

Assessing evidence	
GRADE (quantitative studies)	**GRADE-CERQual (qualitative studies**
Study limitations (internal validity) Inconsistency (heterogeneity)	Methodological limitations (internal validity) Relevance (applicability to the context)

Indirectness Imprecision Other considerations (e.g. publication bias)	Coherence Adequacy of data

Classification of the evidence	
High	Further research unlikely to change recommendation
Moderate	Further research likely to impact recommendation and may change its strength
Low	Further research very likely to impact recommendation and change its strength
Very low	Estimate very uncertain, further research will likely change recommendation