**Supplemental Table 1. Authors’ assessment of risk of bias of randomized controlled trial using the Cochrane risk-of-bias tool**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Study, Year** | **Cochrane risk of bias domain** | | | | | | |
| **Random sequence generation (selection bias)** | **Allocation concealment (selection bias)** | **Blinding of participants and personnel (performance bias)** | **Blinding of outcome assessment (detection bias)** | **Incomplete outcome data (attrition bias)** | **Selective reporting (reporting bias)** | **Other potential sources of bias** |
| **Johnsen, 2017** | Low risk; computer-generated schedule using block size of 6 | Low risk; patients and personnel blinded to allocation | Low risk; double blinded | Low risk; double blinded | Low risk; disposition of patients was described | Unclear risk; omitted registered secondary outcome with explanation | Low risk |
| **Holvoet, 2018** | Unclear risk; insufficient information | Unclear risk; insufficient information | Unclear risk; insufficient information | Unclear risk; insufficient information | Unclear risk; discrepancies in numbers of patient disposition between abstract and presentation | Unclear risk; insufficient information | Unclear risk; insufficient information, delivery of FMT changed from colonoscopy on registration to jejunal tube on report |
| **Aroniadis, 2018** | Unclear risk | Unclear risk | Unclear risk | Unclear risk | Low risk; disposition of patients was described | Unclear risk; omitted registered secondary outcome | Unclear risk; insufficient information |
| **Halkjær, 2018** | Low risk; computer-generated schedule using block size of 4 | Low risk; patients and personnel blinded to allocation | Low risk; double blinded | Low risk; double blinded | Unclear risk; no reason reported for 1 excluded participant in experimental arm | Low risk; all expected outcomes reported | Unclear risk; inaccurate reporting of secondary outcome (IBS-QoL) |

FMT, fecal microbiota transplantation; IBS-QOL, Irritable Bowel Syndrome-Quality of Life Measure

**Supplemental Table 2. GRADE quality of evidence summary of the comparisons of FMT versus placebo in IBS**

| **Certainty assessment** | | | | | | | **№ of patients** | | **Effect** | | **Certainty** | **Importance** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№ of studies** | **Study design** | **Risk of bias** | **Inconsistency** | **Indirectness** | **Imprecision** | **Other considerations** | **FMT** | **Placebo** | **Relative (95% CI)** | **Absolute (95% CI)** |
| IBS symptoms improve | | | | | | | | | | | | |
| 4 | Randomized trials | Serious | Very serious | Not serious | Serious | Publication bias strongly suspected | 75/152 (49.3%) | 52/102 (51.0%) | **RR 0.93** (0.48 to 1.79) | **36 fewer per 1,000** (from 265 fewer to 403 more) | ⨁○○○ VERY LOW | CRITICAL |
| IBS symptoms improve-non-oral route FMT versus placebo using patients' own fecal microbiota | | | | | | | | | | | | |
| 2 | Randomized trials | Serious | Not serious | Not serious | Serious | Publication bias strongly suspected | 57/102 (55.9%) | 18/52 (34.6%) | **RR 1.59** (1.06 to 2.39) | **204 more per 1,000** (from 21 more to 481 more) | ⨁○○○ VERY LOW | CRITICAL |
| IBS symptoms improve-FMT oral capsules versus placebo capsules not containing fecal microbiota | | | | | | | | | | | | |
| 2 | Randomized trials | Serious | Not serious | Not serious | Serious | Publication bias strongly suspected | 18/50 (36.0%) | 34/50 (68.0%) | **RR 0.54** (0.34 to 0.85) | **313 fewer per 1,000** (from 102 fewer to 449 fewer) | ⨁○○○ VERY LOW | CRITICAL |

CI: Confidence interval; FMT, fecal microbiota transplantation; IBS, irritable bowel syndrome; Risk ratio