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

|  |  |
| --- | --- |
| **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