**Supplemental Table.** Summary of assessment of risk of bias

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Selection bias** | **Performance bias** | **Detection bias** | **Attrition bias** | **Reporting bias** | **Other biases** |
| **Random sequence generation** | **Allocation concealment** | **Blinding of participants and personnel** | **Blinding of outcome assessment** | **Incomplete outcome data** | **Selective outcome reporting** |
| **Studies of IBS** |
| **Alverine** |
| Mitchell et al., 2002 (50) | Low risk | Low risk | Low risk | Unclear | Low risk | Unclear | High risk |
| Wittmann et al., 2010 (51) | Low risk | Low risk | Low risk | Unclear | Low risk | Unclear | High risk |
| **Dicyclomine** |
| Matts, 1967 (43) | Low risk | Low risk | Low risk | Low risk | Unclear | Unclear | Unclear |
| Page and Dirnberger,1981 (18) | Unclear | High risk | Low risk | High risk | Low risk | Unclear | Unclear |
| **Hyoscine** |
| Ritchie and Truelove, 1979 (44) | Low risk | Low risk | Low risk | Low risk | Low risk | Low risk | Unclear |
| Nigam et al., 1984 (45) | Low risk | Unclear | Low risk | Low risk | Low risk | Low risk | Unclear |
| Schäfer and Ewe, 1990 (46) | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear |
| **Hyoscyamine** |
| Carling et al., 1989 (47) | Unclear | High risk | Unclear | Unclear | Low risk | Unclear | Unclear |
| **Mebeverine** |
| Kruis et al., 1986 (48) | Unclear | Unclear | Unclear | Unclear | Low risk | Unclear | Unclear |
| Everitt et al., 2013 (49) | Low risk | Low risk | Low risk | Unclear | Low risk | Low risk | High risk |
| **Otilonium** |
| Baldi et al., 1991 (52) | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear |
| Battaglia et al., 1998 (53) | Unclear | Unclear | Unclear | Unclear | Low risk | Unclear | Unclear |
| Clavé et al, 2011 (54) | Low risk | Low risk | Unclear | Unclear | Low risk | High risk | High risk |
| Chmielewska-Wilkoń et al., 2014 (55) | Low risk | Low risk | Low risk | Unclear | Unclear | Unclear | Unclear |
| **Pinaverium** |
| Levy et al., 1977 (56)  | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear |
| Delmont J, 1981 (57)  | Low risk | Low risk | Unclear | Unclear | Unclear | Unclear | Unclear |
| Awad et al., 1995 (58) | Unclear | Low risk | Low risk | Unclear | Low risk | Unclear | Unclear |
| Zheng et al., 2015 (15) | Low risk | Low risk | Low risk | Low risk | Low risk | High risk | Low risk |
| Schmulson et al, 2020 (59) | Low risk | Low risk | Low risk | Low risk | Low risk | Unclear | Unclear |
| **Trimebutine** |
| Moshal et al., 1979 (60)  | Low risk | Low risk | Unclear | Unclear | Unclear | Unclear | Unclear |
| Fielding, 1980 (61)  | Unclear | Low risk | Unclear | Unclear | Low risk | Unclear | Unclear |
| Ghidini, et al., 1986 (62)  | Unclear | Low risk | Unclear | Unclear | Unclear | Unclear | Unclear |
| Dumitraşcu Stănculete, 2006 (63)  | Low risk | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear |
| **Studies of non-IBS functional GI disorders** |
| **Hyoscine** |
| Mueller-Lissner et al., 2006 (64)  | Low risk | Low risk | Low risk | Unclear | Low risk | Unclear | Unclear |
| Lacy et al., 2013 (65)  | Low risk | Low risk | Low risk | Unclear | Low risk | Unclear | Unclear |
| **Trimebutine** |
| Walters et al., 1980 (66)  | Low risk | Unclear | Unclear | Unclear | Unclear | Unclear | Unclear |

GI, gastrointestinal; IBS, irritable bowel syndrome.