**S4.0 Study Limitations and Risk of Bias (15)**

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| **Study** | **Lack of allocation concealment** | **Lack of blinding** | **Incomplete accounting of patients and outcome events** | **Selective outcome reporting biasb** | **Other\*** |
| Baris et al (43) | No major risk of bias | No major risk of bias | Major risk of bias | Unclear | No major risk of bias |
| Yadav et al (42) | No major risk of bias | No major risk of bias | No major risk of bias | Unclear | Major risk of biasd |
| Darabi et al (24) | Unclear | Unclear | Major risk of biasa | Unclear | Unclear |
| Lewis et al (27) | Unclear | Unclear | Major risk of biasa | Unclear | No major risk of bias |
| Majak et al (31) | No major risk of bias | Unclear | No major risk of bias | Unclear | No major risk of bias |
| Urashima et al (34) | No major risk of bias | No major risk of bias | Major risk of biasa,c | Unclear | No major risk of bias |
| Majak et al (36) | Unclear | No major risk of bias | No major risk of bias | Unclear | No major risk of bias |
| Schou et al (39) | No major risk of bias | Unclear | No major risk of bias | Unclear | Major risk of biase |
| \*Includes the following: stopping early for benefit, use of unvalidated outcome measures (e.g., patient-reported outcomes), carryover effects in crossover trial, and recruitment bias in cluster-randomized trials. | | | | | |
| aIncludes the following: participants lost to follow-up > 20%, lack of assessment by intention-to-treat analysis in the presence of non-compliance and missing outcomes. | | | | | |
| bCould not have access to a protocol developed before the study was undertaken. | | | | | |
| cRecruitment was not based on asthma diagnosis; a subgroup of participants (230/430) with a previous diagnosis of asthma were used for secondary analyses. | | | | | |
| d Unclear outcome measures for asthma exacerbation.  e Carryover effects because of crossover design; insufficient wash-out period (2 weeks). | | | | | |