

Supplementary materials

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3 **Effects of cereal fibers on short-chain fatty acids in healthy subjects and patients: a meta-analysis of**
4 **randomized clinical trials**

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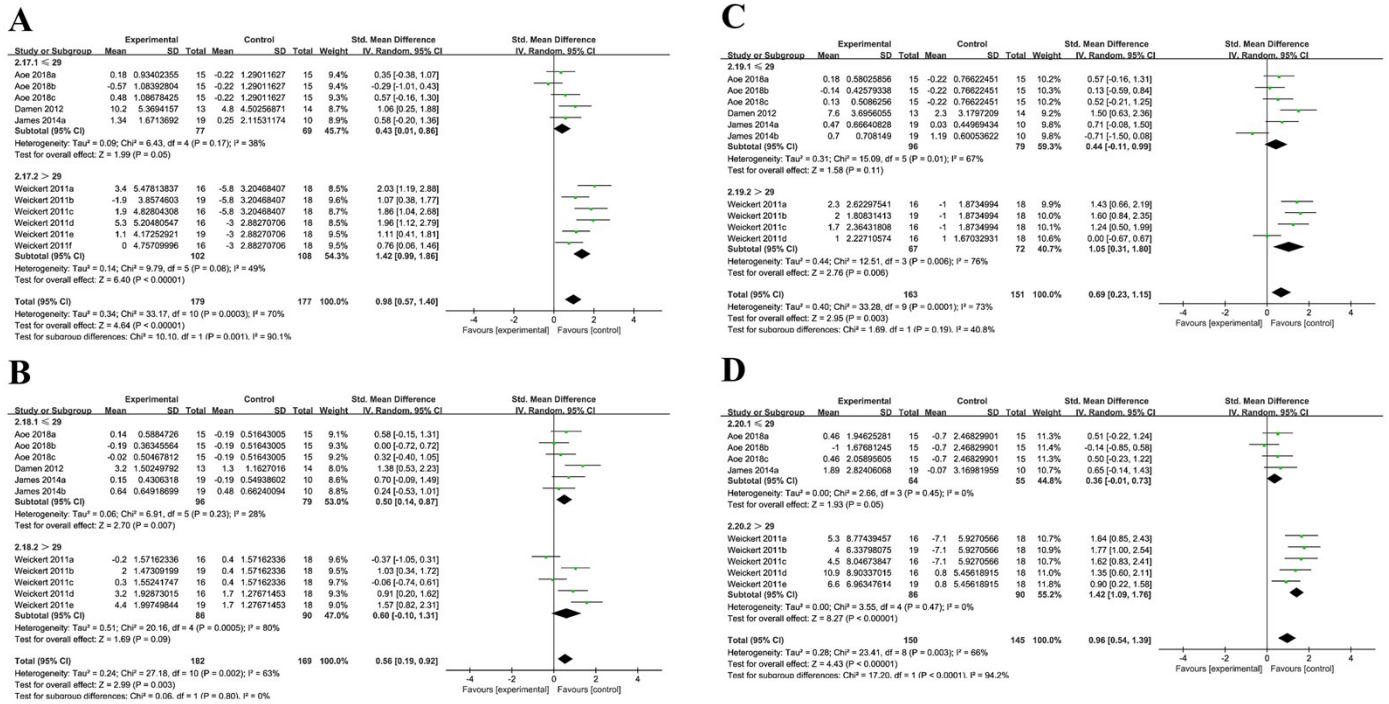
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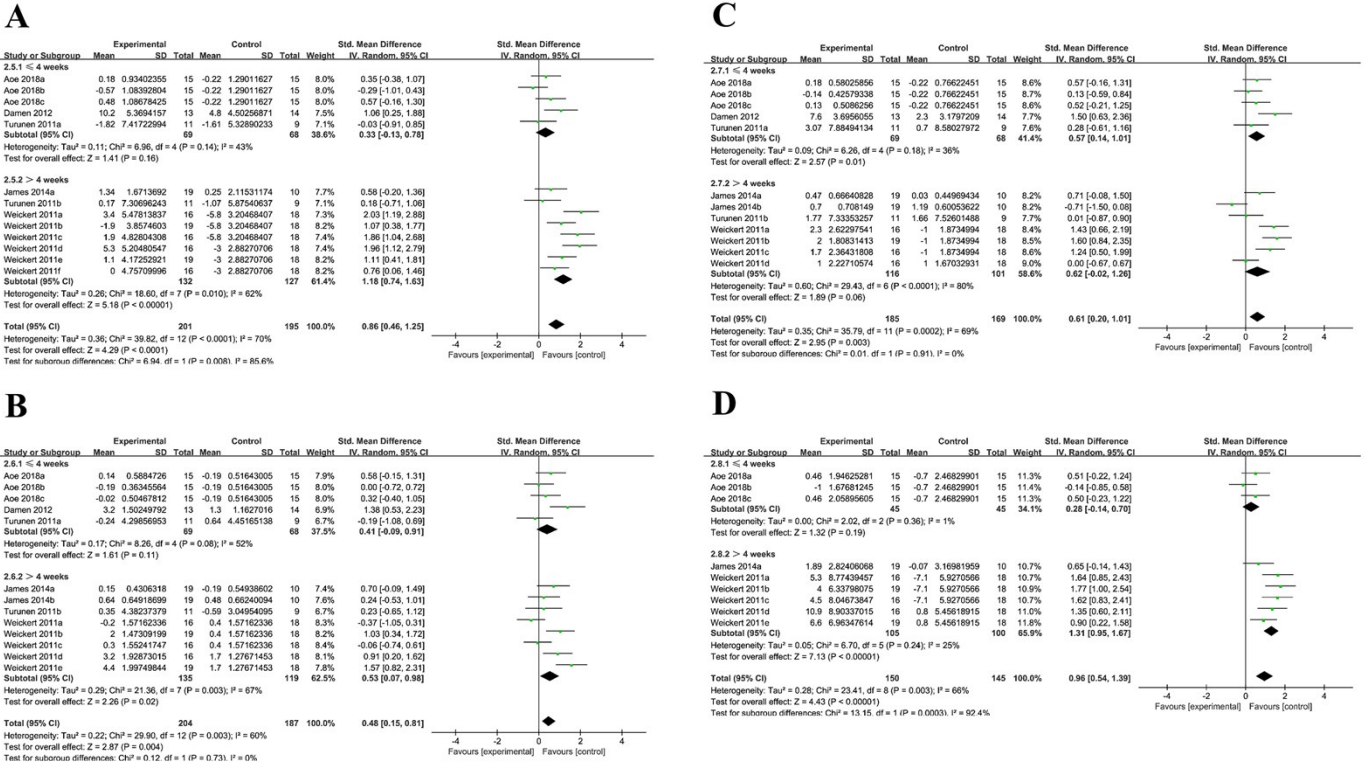
10 ² Institute of Food Science, Tibet Academy of Agricultural and Animal Husbandry Sciences, Lasa 850000,
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12 #These authors contributed equally to this work

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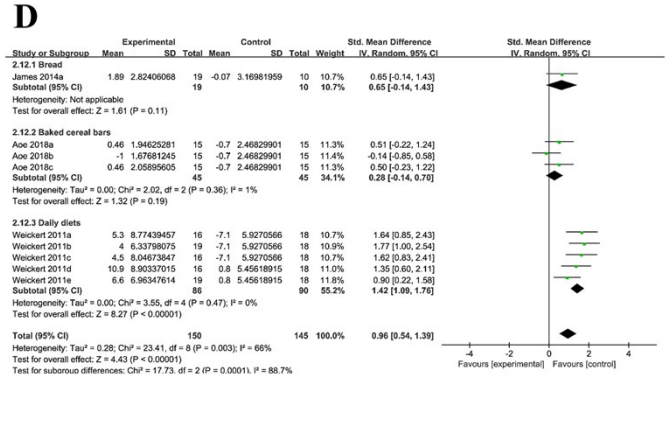
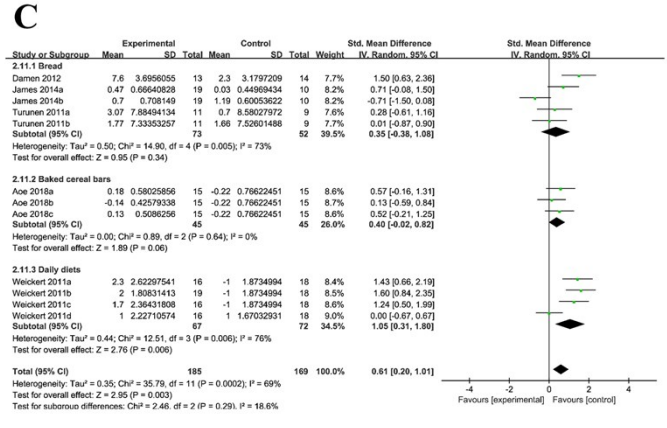
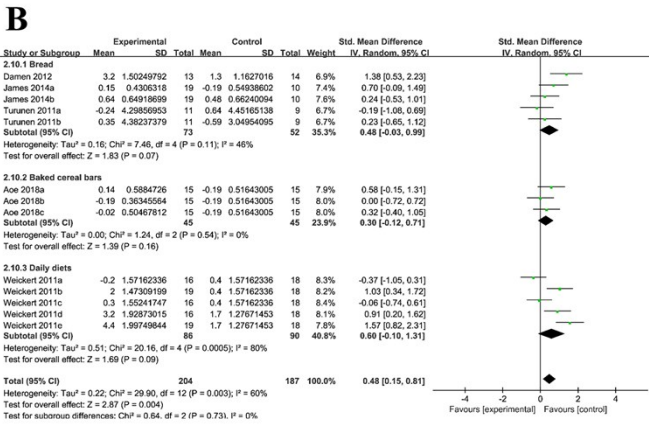
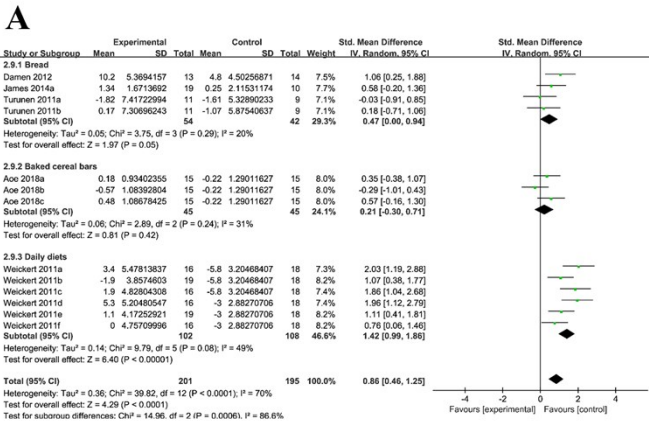


15
 16 **Fig. S1.** Forest plot of subgroup analysis of the effect of cereal fibers consumption on SCFAs concentration
 17 based on the body mass index (BMI). The effect of cereal fibers supplementation on acetate (A), propionate
 18 (B), butyrate (C) and total SCFAs (D) concentrations.



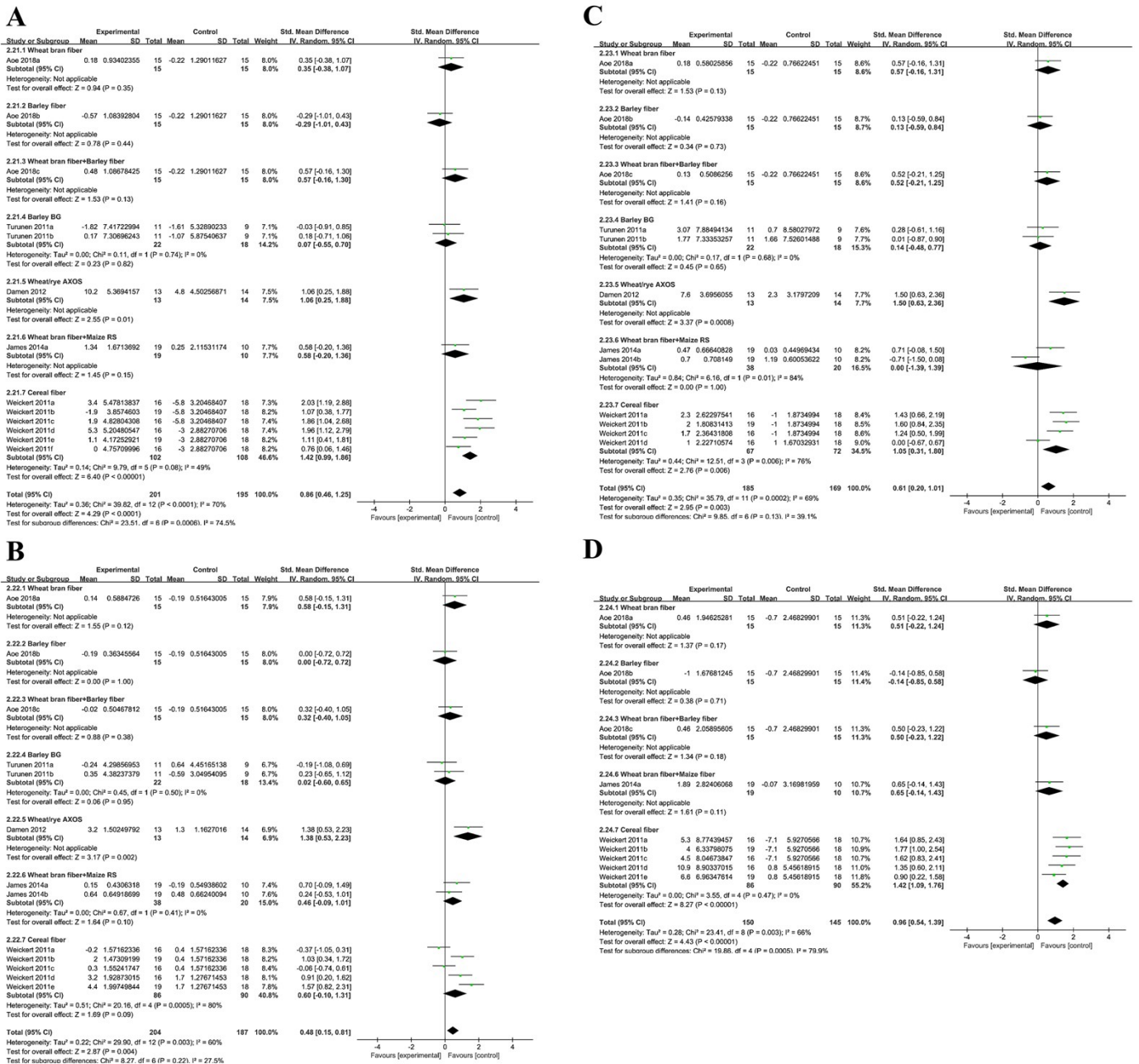
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21 **Fig. S2.** Forest plot of subgroup analysis of the effect of cereal fibers consumption on SCFAs concentration
 22 based on the intervention duration. The effect of cereal fibers supplementation on acetate (A), propionate
 23 (B), butyrate (C) and total SCFAs (D) concentrations.



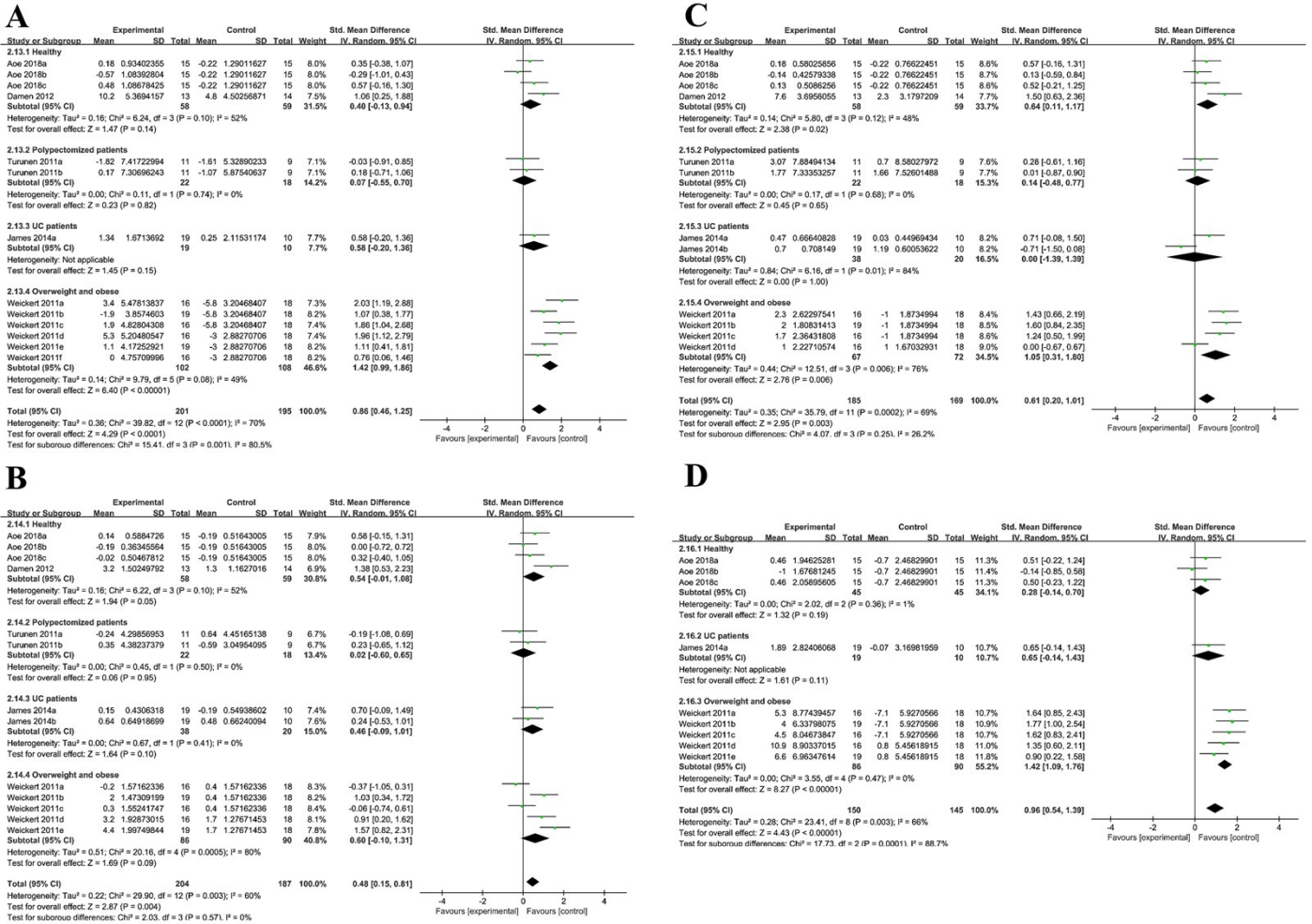
25

26 **Fig. S3.** Forest plot of subgroup analysis of the effect of cereal fibers consumption on SCFAs concentration
 27 based on the forms of intervention. The effect of cereal fibers supplementation on acetate (A), propionate
 28 (B), butyrate (C) and total SCFAs (D) concentrations.



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31 **Fig. S4.** Forest plot of subgroup analysis of the effect of cereal fibers consumption on SCFAs concentration
 32 based on the types of cereal fibers. The effect of cereal fibers supplementation on acetate (A), propionate (B),
 33 butyrate (C) and total SCFAs (D) concentrations.



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36 **Fig. S5.** Forest plot of subgroup analysis of the effect of cereal fibers consumption on SCFAs concentration
 37 based on the health status of participants. The effect of cereal fibers supplementation on acetate (A),
 38 propionate (B), butyrate (C) and total SCFAs (D) concentrations.



PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	Title (page 1)
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	Abstract (page 2)
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	Introduction Paragraph 1-4 (page 3-4)
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	Introduction Paragraph 5 (page 4)
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	Methods Paragraph 6 (page 7)
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	Methods Paragraph 2 (page 5)
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	Methods Paragraph 1 (page 4)
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Methods Paragraph 1 (page 4-5)
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	Methods Paragraph 2 (page 5)



PRISMA 2009 Checklist

Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	Methods Paragraph 3(page 5-6)
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	Methods Paragraph 3 (page 5-6)
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	Methods Paragraph 4(page 6)
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	Methods Paragraph 5-6(page 6-7)
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I ²) for each meta-analysis.	Methods Paragraph 5-6(page 6-7)

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Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	Methods Paragraph 5-6(page 6-7)
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	Methods Paragraph 5-6(page 6-7)
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Results Paragraph 1(page 7) Fig.1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Results Paragraph 2(page 7-8) Table 1
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	Results Paragraph



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			3(page 8) Fig.2
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Results Paragraph 4-7(page 8-10) Fig.3-Fig.6
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	Results Paragraph 4-7(page 8-10) Fig.3-Fig.6
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	Results Paragraph 9(page 11) Fig.7
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	Results Paragraph 8(page 10) Table 2
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	Discussion Paragraph 1-6(page 11-14)
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	Discussion Paragraph 7(page 14)
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	Conclusion Paragraph 8(page 14)
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	Funding Paragraph 1(page 15)



PRISMA 2009 Checklist

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