HKCA Formal Project Assessment Rubric

Systematic review and meta-analysis

| | Excellent | Good | Needs improvement |
|--------------------|--|---|---|
| Title and abstract | -Title: Identify the report as a systematic review and meta-analysis -abstract: concise and clear summary of background, study design, methods, results and conclusions | -Title: Identify the report as a systematic review -abstract: covers the background, study design, methods, results and conclusions | -does not identify as systematic review in the title -abstract: does not cover all the key components of an abstract |
| Introduction | -Describe the rationale for the review in the context of existing knowledge -Clearly describe the objectives of the review | -rationale of the review provided -existing knowledge covered -objectives of the review given | -Relevant existing knowledge not provided -Rationale of the review is not clear -No/inadequate description of the objective |
| Methods | -Eligibility criteria: clearly and reasonably specified the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses | - Eligibility criteria: the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses were reasonably provided | - Eligibility criteria: the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses were unclear |
| | -Information sources and search strategy: specified all databases, registers, websites, organizations, reference lists and other sources searched or consulted to identify studies. Presented the full search strategies. Specified the date when each source was last searched or consulted | -Information sources and search strategies were largely provided | -Lack of description of information sources and search strategy |
| | - Selection and data collection process: Specified all the relevant methods used to decide whether a study met the inclusion criteria of the review and how to collect data from reports, eg. Number of reviewers, if they | - Selection and data collection process was reasonably described | - Selection and data collection process was omitted or not appropriate |

| worked independently, any processes for obtaining or confirming data from study investigators | | |
|--|--|--|
| -Listed and defined all outcomes and variables for which data were sought. Described any assumptions made about missing or unclear information | -Outcomes and variables for which data were sought were largely listed and defined. Described any assumptions made about missing or unclear information | - Outcomes and variables for which data were sought were not listed and defined. Assumptions made about missing or unclear information were not described |
| -Risk of bias assessment: Specified the methods used to assess risk of bias in the included studies, including details of the tools used | -Risk of bias assessment: methods used to assess risk of bias in the included studies were provided but not in great detail including details of the tools use | -Risk of bias assessment: methods used to assess risk of bias in the included studies were missing |
| -Assessment of level of evidence: Described highly appropriate method to evaluate the quality of evidence for metaanalysis | -Assessment of level of evidence: Described reasonable method to evaluate quality of evidence for meta-analysis | -Assessment of level of evidence: Did not mention or described inappropriate method to evaluate quality of evidence for meta-analysis |
| -Effect measures: Clearly demonstrated effect measures for each outcome eg. Risk ratio, mean difference | -Effect measures: Clearly demonstrated effect measures for each outcome eg. Risk ratio, mean difference | -Effect measures: effect measures for each outcome was not adequately presented |
| -Synthesis methods for meta-analysis: Tabulated or visually display results of individual studies. | -Synthesis methods for meta-analysis: Tabulated or visually displayed results of individual studies. | -Synthesis methods for meta-analysis Results of individual studies were not tabulated |
| Describe methods used to synthesize results and provided a solid rationale for the choices. Described the software and model used for meta-analysis. | Methods used to synthesize results provided. | Methods used to synthesize results and were incorrect or not mentioned |
| Highly appropriate methods used to explore possible causes and extent of heterogeneity. | Described methods used to explore possible causes and extent of heterogeneity | Did not describe method to explore cause and extent of heterogeneity, or the methods was incorrect. |

| | Appropriate method used for evaluating publication bias. | Appropriate method used for evaluating publication bias. | Did not evaluate publication bias or incorrect method used |
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| Results | -Study selection: Described the results of the search and selection process using a flow diagram | - Study selection: Described the results of the search and selection process using a flow diagram | - Study selection: Flow diagram was not used to describe the results of the search and selection process |
| | -presented study characteristics, risk of bias, outcome of each included study using structured tables or plots | -presented study characteristics, risk of bias, outcome of each included study using structured tables or plots | -study characteristics, risk of bias, outcome of each included study were not presented structurally |
| | -for results of meta- analysis, accurately presented the summary estimate and its precision, measures of statistical heterogeneity, direction of the effect, sensitivity analyses, assessments of risk of bias, certainty (or confidence) in the body of evidence for both primary and seconday outcomes | -for results of syntheses, the summary estimate and its precision, measures of statistical heterogeneity, direction of the effect, sensitivity analyses, assessments of risk of bias, certainty (or confidence) in the body of evidence were provided | -for results of syntheses, the summary estimate and its precision, measures of statistical heterogeneity, direction of the effect, sensitivity analyses, assessments of risk of bias, certainty (or confidence) in the body of evidence were inaccurate or inadequately reported |
| Discussion | -highly appropriate interpretation of the results in the context of other evidence | -reasonably appropriate interpretation of the results in the context of other evidence | -inappropriate interpretation of the results in the context of other evidence |
| | -high quality analysis of limitations of evidence included in the review and limitations of the review processes | -adequate discussion of limitations of evidence included in the review and limitations of the review processes | -lack of discussion of limitations of evidence included in the review and limitations of the review processes |
| | -critically discuss the implications of the results for practice, policy and future research | -reasonably discuss the implications of the results for practice, policy and future research | -discussion of the implications of the results were inappropriate |
| | -provide registration information; declare conflict of interests, offer availability of data and other materials if any | - declare conflict of interests, offer availability of data and other materials if any | |

Grading

Title and abstract 1-3

Introduction 1-3

Methods 1-3

Results 1-3

Discussion and conclusion 1-3