Reviewer’s report

Title: Traditional Chinese herbal medicine for treating novel coronavirus (COVID-19) pneumonia: protocol for a systematic review and meta-analysis

Version: 0 Date: 21 Feb 2020

Reviewer: Addisu Melese

Reviewer's report:

Title:
Better to use the new name (COVID-19) approved by WHO instead of novel corona virus throughout the manuscript

Abstract

Methods:

Line 35: Two independent reviewers will screen studies, extract data and evaluate risk of bias. Here the names of the two reviewers who will be involved should be mentioned. The statistical approaches for heterogeneity of studies and publication bias assessment should be indicated

Discussion:

Lines 39-40: The use of TCM for treatment or prevention of these novel viral infections affecting the respiratory tract will be investigated. As mentioned in the title and background above, your objective was to assess the effects of TCM for pneumonia but you included viral infections of the respiratory tract which is broad, non-specific and out of your objective. It could be better to make it pneumonia instead of respiratory tract.

Background:

Line 46: The name was later named COVID-19 and better use the current name instead.

Lines 46-78: Citations should be inserted immediately before full stops throughout the manuscript.

Lines 65-68: As the new virus was reported similar with SARS and MERS and TCM was reported its successful prevention of SARS with or without combining with western medicine, what is the importance of conducting this review?

Line 79: What types of uncertainties about its effectiveness remained? Was there any patient that used TCM but not cured? Or was there any reported failure of TCM to prevent either the new COVID-19 or other related viruses? Was there any inconsistent report about the effectiveness of TCM? As the virus is continuously spreading, what is the importance of doing this protocol than producing Meta-analysis from the available studies from the mentioned databases?

Methods/design: delete design; not needed
Inclusion criteria
Types of studies:
Lines 93-94: Randomized trials and quasi-randomized or prospective controlled clinical trials that have tested TCM with or without western medicine for NCIP will be included. These studies may use different laboratory tests to isolate the corona virus. Which laboratory tests should be used by the studies to be included in your review?
What types of articles would be included? Free full text articles, how many study participants (sample size of studies) should be tested to be included?

Participants
Lines 97-98: Patients diagnosed with pneumonia caused by 2019-nCoV without immediately life-threatening comorbidities will be included. If the main case and intervention for the patient is pneumonia caused by COVID-19, how could you exclude other comorbidities and studies?

Types of interventions
Lines 102-103: Traditional Chinese herbal medicine involving extracts from herbs, single or mixture herbal formulas regardless of their compositions or forms. TCM combined with one or more other pharmacological intervention will also be included. There will be no restrictions with respect to dosage, frequency or duration of treatment. How could you pool these different studies together to have a pooled treatment effect? Can't these differences have different treatment effect?

Type of outcome measurements
Lines 108-109: Time and rate of the patient becoming negative for the coronavirus. The methods used for isolating or diagnosing the virus could affect the final result. Which laboratory tests could be referenced to declare viral negativity?
Line 12: ……………results of chest CT,…What does CT mean? Include its long form in its first appearance in the text.

Exclusion criteria:
Lines 118-120: (1) Suspected or misdiagnosed NCIP patients - how could you identify whether misdiagnosed or not? (2) Patients with severe basic diseases that are likely to lead to death within the trial follow-up period - what are these basic disease? Which disease would be considered as severe basic diseases? (3) Duplicated data or data that cannot be extracted - Is it not possible to reach authors through e-mail or other means to obtain extractable data for those studies that do not have extractable data?; (4) Full text cannot be obtained - Is that to mean open access/free full text articles or what? Can't it possible to address it by subscription or through e-mailing to authors?

Study selection
Line 132: After removing duplicates, the retrieved records will be checked independently by two reviewers. How duplicates will be removed? Are you going to remove the duplicates manually or which applications will be used?

Data extraction:
Line 140: Country where the study was conducted will be extracted but as the review is in China, extracting country does not have any importance as all studies should be done in China.
Lines 141: Characteristics of patients: age, gender, stage and severity of disease, comorbidity. How could you measure the stage and severity of the disease? Which types of comorbidities will be included?
Assessment of risk of bias
Lines 150-152: We will follow the guidance in the latest version of Cochrane Handbook for systematic reviews of interventions (Ref.) - needs citation
How could you classify the risks of bias of included studies? When will you include or exclude studies (level of risk of bias)?
Lines 153-154: Any disagreements will be discussed and resolved in discussion with a third reviewer (RJ). What level of agreement would be accepted during your discussion between YL and DZ and with the third reviewer?

Data analysis
Lines 160-161: If subsets of included studies are sufficiently homogeneous, we will perform meta-analysis for all outcomes. When will you declare sufficiently homogenous? And can't you perform meta-analysis if not homogenous?
Line 163-165: Fixed-effects model will be used if there is small statistical heterogeneity among studies (I² < 50%, P > 0.10) (Ref.). Otherwise, random-effects model will be used. You said earlier (lines 160-161) that met-analysis would be done if studies are sufficiently homogenous. If this is true, why and how these models are used for? In addition, the choice of the model is recommended to be chosen not based on the level of heterogeneity rather it should depend on the sampling frame that was used to select studies for the analysis and studies are gathered from the published literature, the random effects model is generally a more plausible match (Borenstein M. et al, Introduction to Meta-analysis, 2009).
Subgroup analysis
Lines 167-168: If an adequate number of studies are identified, we will perform subgroup analysis for the following variables: age; patients with or without other diseases; and NCIP stage at which the TCM was given. Insert age category; which comorbidities are to be included or excluded as describes earlier, so which other disease will be considered and include the proposed NCIP stage at which TCM was given. What about its effect with and without combination of western medicine? Doesn't need to conduct subgroup analysis by this category to see the pooled effect of TCM in combination or without combination with western medicine?
Sensitivity analysis
Lines 173-174: To check the robustness of pooled outcome results, we will carry out sensitivity analysis to explore the influence of studies with high risk of bias. What about the heterogeneity of included studies? Can't sensitivity analysis help to identify the source of heterogeneity too? Better to describe the importance of sensitivity analysis in detail.
Publication bias
Line 176-177: other corrective analytical methods, depending on the number of clinical trials included in our review. Which statistical methods are proposed to be used? How many trials are required to use these corrective analytical methods?
Discussion
Lines 198-202: needs citation
Line 201: Long form of AMSTAR2
Additional comments
The inclusion and exclusion criteria will better if inserted under a sub-title 'eligibility criteria'
What will be the possible limitations for this review?
Which quality assessment tool will be used to assess the quality of included studies?
Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

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5. Do you have any other financial competing interests?

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Were you mentored through this peer review?

No