

PEER-REVIEW REPORT

Name of journal: World Journal of Meta-Analysis

Manuscript NO: 66448

Title: Troponin I biomarker as a strong prognostic factor for predicting Covid-19 mortality: A systematic review and meta-analysis

Reviewer's code: 05872850

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Iran

Author's Country/Territory: Iran

Manuscript submission date: 2021-03-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-03-30 04:16

Reviewer performed review: 2021-03-30 05:19

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

Explain about study eligibility criteria Please explain about the study interval What is the reason for the high heterogeneity? Justify it if possible Discuss limitations at study and outcome leve

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Name of journal: World Journal of Meta-Analysis

Manuscript NO: 66448

Title: Troponin I biomarker as a strong prognostic factor for predicting Covid-19 mortality: A systematic review and meta-analysis

Reviewer's code: 05905243

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: United Kingdom

Author's Country/Territory: Iran

Manuscript submission date: 2021-03-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-03-29 16:45

Reviewer performed review: 2021-04-01 05:31

Review time: 2 Days and 12 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This is a paper which completed an updated systematic review and meta analysis on a contextual topic important for clinical practice given current circumstances, which have not been formally published as a review article type - though there are previous publications in Letter to the Editor Format e.g. Lippi et al, 2020 Prog Cardiovasc Dis completed a meta-analysis re Cardiac Troponin I as a prognostic indicator in patients with COVID-19. That said, the general methodology on how the authors completed their search is robust and clearly described. The completion of meta-analysis has also been clear, and addresses the pitfalls in their collated data i.e. bias and heterogeneity etc., which was generally consistent with previous published findings on this topic. There are some minor suggestions I would like the authors to consider for revision: 1) Language - there are some phrases throughout the paper which appear awkward and grammatically erroneous, please review. 2) Please acknowledge previous meta-analysis completed on this topic from Lippi et al. 2020, Prog Cardiovasc Dis and Vrsalovic et al. 2020, J Infect in the discussion and reference 3) Please describe search terms used in completing the systematic search in the methods section.

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Name of journal: World Journal of Meta-Analysis

Manuscript NO: 66448

Title: Troponin I biomarker as a strong prognostic factor for predicting Covid-19 mortality: A systematic review and meta-analysis

Reviewer's code: 03476225

Position: Peer Reviewer

Academic degree: MD

Professional title: Consultant Physician-Scientist

Reviewer's Country/Territory: Italy

Author's Country/Territory: Iran

Manuscript submission date: 2021-03-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-03-28 13:54

Reviewer performed review: 2021-04-02 21:34

Review time: 5 Days and 7 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

MANUSCRIPT TO BE REVIEWED: “Troponin I biomarker as a strong prognostic factor for predicting mortality and poor outcome of COVID-19: a systematic review and meta-analysis” by Ashraf Haleh et al

GENERAL COMMENTS This is an interesting paper evaluating the prognostic value of Troponin-I in assessing the outcome of COVID-19. The authors performed a thorough search in various data-banks, with stringent criteria and personally contacted the authors when needed. The analysis of the selected studies is stringent and meticulous and the conclusions supported by the results of their meta-analysis. I think that the main issue on the prognostic value of Troponin-I in COVID is whether this test is an independent variable in prognostication, as outlined by the authors in the discussion when they describe the quadrilateral mediator loop of Troponin. I am not sure if any multivariate analysis have been performed in these studies to assess if Troponin-I is really an independent and better prognostic marker than D-Dimer levels, right ventricular strain, CRP levels and so on. Neither I am sure if the multivariate analysis contained in the studies can be included in a formal meta-analysis, but It could be helpful for non-experts in meta-analysis to touch on this point in the discussion.

SPECIFIC COMMENTS - Only baseline Troponin-I at hospital admission was considered in the various studies. Is there any study taking into account the difference in Troponin- levels between hospital admission and subsequent time points (Delta Troponin-I)? - Abstract lines 14-18: better to describe HR with 95% C.I. rather than with p values - Abstract: lines 16-18 The sentence “The pooled analysis led to point significantly higher concentration of this marker between the two survived and non-survived groups” is twisted. It should be better said. - Introduction: line 5. It is clear that accurate and early diagnosis may prevent COVID diffusion, but it is counter-intuitive that assessment of severity can do



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the same, since patients with no or few symptoms are the main route of transmission. -

Introduction: lines 22 and following. Please quote the recent CDC document on medical conditions associated with high risk for severe COVID. It contains a thorough description of the various HR of comorbidities for severe disease (March 20, 2021: <https://cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html>).

- Methods: the authors tried to collect studies in any language through an explicit English translation, but de-facto all 5 non-English studies were excluded (Fig.1 Flow chart). Better said that non English studies were excluded from the meta-analysis. -

The English text needs some revision since it contains some slips and misspellings

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Title: Troponin I biomarker as a strong prognostic factor for predicting Covid-19 mortality: A systematic review and meta-analysis

Reviewer's code: 05506752

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Chief Physician

Reviewer's Country/Territory: China

Author's Country/Territory: Iran

Manuscript submission date: 2021-03-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-03-29 03:00

Reviewer performed review: 2021-04-08 03:40

Review time: 10 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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SPECIFIC COMMENTS TO AUTHORS

This article provides an in-depth analysis of the effectiveness and feasibility of troponin I as a biomarker in predicting the mortality and poor prognosis of Covid-19. But there are too many such articles, and the originality and innovation are not enough.