

Review of: "Proinflammatory Cytokine Levels in Sepsis and in Health and TNF α Association with Sepsis Mortality and patient characteristics: a Systematic Review and Meta-analysis"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

This study aimed to quantify key cytokine levels in the circulation in sepsis patients and healthy volunteers and assess associations between these levels and outcomes and clinical characteristics. The strength of this study was to conduct analysis using a rigorous method of systematic reviews. However, there was some weakness in this study.

First, the authors had better conduct the update search for all the databases (for example, the search date is December 2021).

Second, they had better adhere to PRISMA 2020 for Abstract. For example, they had better described the following information in the abstract: exclusion criteria for the review, the methods used to synthesize results (meta-analysis), relevant characteristics of included studies, indicating the number of included studies and participants for each primary outcome, confidence intervals for IL-1 β and IFN γ in sepsis patients, a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision), the primary source of funding for the review (grant UL1 RR025780 from the National Institutes of Health/National Center for Research Resources, Colorado Clinical Translational Science Institute; a grant from the Emily Foundation for Medical Research). If the number of words in the abstract is limited, the author can remove the mention of subgroup analysis from "Methods", "Findings" and "Interpretation" of the abstract.

Third, it would be better to add the PRISMA 2020 Checklist and PRISMA 2020 for Abstract Checklist as Supplemental Materials with the page numbers of the manuscript for each item in the PRISMA 2020 Checklist and with Yes/No for each item in the PRISMA 2020 for Abstract Checklist.

Fourth, they had better revise the manuscript, or add new limitations in the discussion if any important items in the PRISMA 2020 checklist were not met.

Fifth, they had better clarify search strategies for all the databases in the eMethods.

Sixth, they had better clarify PRISMA 2020 flow diagram in Figure 1. The present Figure 1 was the PRISMA flow diagram in the previous version, not PRISMA 2020 flow diagram.

Seventh, they had better cite the article about PRISMA 2020 statement, not the PRISMA statement. Furthermore, they had better describe they adhered to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) 2020 reporting guideline.

Eighth, they had better add the new figure for the result for the QUIPS assessment.