

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Critical Care Medicine*

**Manuscript NO:** 75268

**Title:** Effects of nutrients on immunomodulation for patients with severe COVID-19: current knowledge

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05483101

**Position:** Editorial Board

**Academic degree:** FIAC, MD

**Professional title:** Assistant Professor

**Reviewer's Country/Territory:** Malaysia

**Author's Country/Territory:** Brazil

**Manuscript submission date:** 2022-01-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-01-22 02:01

**Reviewer performed review:** 2022-01-22 13:41

**Review time:** 11 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" 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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Peer-reviewer statements</b>	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

Major 1. The search is not comprehensive, some of the important keywords are missing such as coronavirus, immunomodulation, etc. Try use truncation for your search in PubMed to allow no missing important research papers. 2. Figure 1 – too simple. Suggest to follow PRISMA guidelines for systematic review to describe methodological selection process in more details. Define exclusion and inclusion criteria. 3. Suggest to include a figure/ diagram to summarize the review article. Or to demonstrate the mechanisms of actions of these supplements in targeting COVID infection. 4. The mechanisms of actions for each supplements are not comprehensively reviewed. Suggest to describe each mechanisms up to cellular level to enhance the value of the review. 5. What about the dosage of the recommended supplements for certain age groups? – since the authors mentioned of inadequate and insufficient intake of certain supplements may jeopardize the health of consumers. 6. Are there any ongoing or completed clinical trials for supplement usage in severe COVID-19 patients? Explore along this. Minors 1. Some weakness in grammar usage in the manuscript were detected. Suggest to send to native English speakers for corrections. 2. Suggest to homogenize the use of some terminology such as COVID-19, SARS-CoV-2. It appears as Covid 19, COVID-19, Sars-Cov-2 etc in the manuscript.

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**Reviewer's code:** 03110530

**Position:** Editorial Board

**Academic degree:** FACE, FCCP, MD, PhD

**Professional title:** Associate Professor, Director, Staff Physician

**Reviewer's Country/Territory:** United States

**Author's Country/Territory:** Brazil

**Manuscript submission date:** 2022-01-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-01-21 23:18

**Reviewer performed review:** 2022-01-24 15:12

**Review time:** 2 Days and 15 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 type="checkbox"/> Grade B: Minor language polishing <input checked="" 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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Peer-reviewer statements</b>	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

I read with interest the manuscript by Teixeira da Costa et al which reviews the effects of nutrients on immunomodulation in patients with severe COVID19. The topic is timely and relevant a focused review will be valuable for clinicians. I have a few suggestions: 1) It would be helpful for readers if the title emphasized that this was a review e.g. "Review of the effects of nutrients on immunomodulation for patients with severe COVID-19" 2) The abstract should emphasize that this is an evidence based review and briefly describe the background, methods, results and conclusions. The current abstract is rather long and more of a summary of the findings 3) The manuscript would benefit by English grammatical editing to enhance readability 4) The methodology section and Figure 1 should provide additional methodologic detail e.g. among the 3279 articles identified why were the majority 3157 excluded. 5) Table 1 would be enhance if it provided data on clinical outcomes for each micro/macronutrient. For example does deficiency or supplementation impact survival, ICU length of stay, etc. 6) It would be helpful if each section was subdivided into general information regarding the immunomodulatory effects of the micro/macro nutrient and then data from COVID19 studies was summarized. The general and COVID specific information are "mixed" which makes it more difficult to read 7) The manuscript contains information which is not directly relevant to the review and could be shortened/eliminated e.g. the detailed description of the ESPEN guidelines on IV lipid emulsion administration is not needed 8) How do the findings/conclusions of the review align with guidelines regarding nutritional management of patients with COVID19 e.g Barazzoni R, Bischoff SC, Breda J, et al. ESPEN expert statements and practical guidance for nutritional management of

individuals with SARS-CoV-2 infection. Clin Nutr. 2020;39(6):1631-1638.  
doi:10.1016/j.clnu.2020.03.022