

Scientific Review Report

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Scientific Review Report

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Peer Reviewer's Comments

Note from the Peer Reviewer, Maria Machado

Dear author,

My name is Maria Machado, and it has been a pleasure reviewing your manuscript. I have a PhD in vascular physiology, and my areas of expertise include microcirculation, research design, and control of blood flow. I have 19 years of peer review experience, and I have reviewed for Cardiovascular Research (10.8), the Journal of Physiology (5.5), the Journal of Theoretical Biology (2.0), Clinical Science (6.6), and Frontiers in Physiology (4.0), among others.

I have reviewed hundreds of research manuscripts in the biomedical field, contributing to the publication of a lot of them. I have editorial experience in the journal Bio-Protocol, and I'm an associate of EASE, OASPA, and COPE. I contribute to webinars and podcasts on peer review by Sci-Train and have joined the steering committee of Peer Review Week.

I have carefully read and evaluated your manuscript and provided suggestions to strengthen the presentation of your research and highlight its relevance and originality. If you found my suggestions appropriate and useful, please let me know by specifically mentioning the peer review comments in your feedback. Your feedback would be immensely helpful to me.

This report also includes comments on the manuscript's language, structure, and submission readiness from the Senior Science Editor and Managing Editor that I hope you will find useful.

I wish you the very best with the submission of your manuscript!

Summary

- Is the paper ready for submission in its current form?

No, some clarifications are required. Please check my comments in this report and in the manuscript.

- Major issues – Likely to cause journal rejection

- ◆ Please provide the diagnostic criteria for COVID-19 during the study period.
- ◆ Please provide a detailed description of how the measurement of healthcare provider contacts was performed and the procedures for contact tracing.
- ◆ Please provide characteristics of study participants (e.g., demographic, clinical, social) and information on exposures and potential confounders. Moreover, indicate the number of participants with missing data for each variable of interest.

- Minor issues – Likely to cause delays in journal acceptance

- ◆ Please explain how the data in the third column of table II was obtained. Explain the difference between the number of contacts and touch points.

- ◆ I suggest displaying the data in the bars of the figures as the relative frequencies, as the direct comparisons in the text refer to these.

- Does the paper present novel ideas/a novel direction with regard to the field of research?

This is not clearly mentioned, but the paper could be further strengthened by explaining why the study is unique. For instance, you could explain why vascular surgery is a critical area for this analysis during the pandemic. Was this specialty disproportionately affected or specifically challenging? Is there a gap in understanding how these alternative care models can contribute to safety, resource allocation, and standards of care? Please also note that the journal requests that no statements claiming that this is the first time a procedure has been performed, reported, etc. be included, as these claims are difficult to verify and may not be accurate.

- Is the research rationale sound? (is the reason for conducting the research explained clearly in the paper?)

Though the Introduction sets the context by describing the release of the ACS guidelines and their implementation in your vascular surgery practice, the rationale for why it is important to compare the characteristics of surgeries before and after the guideline implementation and the current gap in the literature should be made more explicit.

- Does the journal accept this article type?

Yes, the journal publishes original clinical studies.

- Does the research in this article lie within the target journal's scope?

Yes, as the *Journal of Vascular Surgery* aims to improve the management of patients with vascular disorders by publishing relevant papers focusing on investigation, management and prevention of aortic, cerebrovascular and peripheral arterial diseases, vascular access, trauma, and malformations. The journal reports on important medical advances, testing of new hypotheses, and addresses current controversies.

- Does the paper present novel ideas or build on the research published in the target journal?

The paper builds on themes explored in the following papers:

- Mouawad NJ, Woo K, Malgor RD, et al. The impact of the COVID-19 pandemic on vascular surgery practice in the United States. *J Vasc Surg.* 2021;73(3):772-779.e4. doi:10.1016/j.jvs.2020.08.036
- Xie B, Semaan DB, Binko MA, et al. COVID-associated acute limb ischemia during the Delta surge and the effect of vaccines. *J Vasc Surg.* 2023;77(4):1165-1173.e1. doi:10.1016/j.jvs.2022.12.002

Assessment by paper section

Title and Abstract

- Are the Title and Abstract representative of the study? How can they be made more compelling?

The title is representative of the study and its findings.

The abstract is an informative and balanced summary of what was done and what was found, but numerical data could be included to make it more compelling. Moreover, mention why the study is important.

- Can a wide readership understand the Title and Abstract independent of the main text? Can they be made more accessible to readers across disciplines?

The title and abstract are easy to follow; however, further highlighting why this study is important will make it more relevant to a wider audience.

Introduction

- Is the literature review complete and which other papers can the author cite?

The literature review is somewhat limited. Please ensure that all papers included in the reference list are cited where appropriate. Additionally, please consider including information from the following papers:

- Armour R, Ghamarian E, Helmer J, et al. Impact of the COVID-19 pandemic on Canadian emergency medical system management of out-of-hospital cardiac arrest: A retrospective cohort study. *Resuscitation*. 2024;194:110054. doi:10.1016/j.resuscitation.2023.110054
- Armario X, Carron J, Simpkin AJ, et al. Impact of the COVID-19 Pandemic on Global TAVR Activity: The COVID-TAVI Study. *JACC Cardiovasc Interv*. 2024;17(3):374-387. doi:10.1016/j.jcin.2023.10.041
- Anthony L, Gillies M, Tran M, Goh D. The indirect impact of COVID-19 pandemic on limb preservation care- a retrospective analysis of trends in lower limb revascularisation. *J Foot Ankle Res*. 2023;16(1):48. Published 2023 Aug 9. doi:10.1186/s13047-023-00648-6
- Anthony L, Gillies M, Iyer V, Goh D. The Indirect Impact of COVID-19 Pandemic on Lower Extremity Amputations - An Australian Study. *Vasc Health Risk Manag*. 2023;19:797-803. Published 2023 Dec 11. doi:10.2147/VHRM.S426434
- Yu J, Joshi J, Wong C, et al. Lessons Learned: A Disruption in Care Leads to Increased Rates of Proximal Amputations. *Wound Manag Prev*. 2023;69(1):49-57.
- Pride L, Kabeil M, Alabi O, et al. A review of disparities in peripheral artery disease and diabetes-related amputations during the COVID-19 pandemic. *Semin Vasc Surg*. 2023;36(1):90-99. doi:10.1053/j.semvascsurg.2022.12.002
- Mattingly AS, Rose L, Eddington HS, et al. Trends in US Surgical Procedures and Health Care System Response to Policies Curtailing Elective Surgical Operations During the COVID-19 Pandemic. *JAMA Netw Open*. 2021;4(12):e2138038. Published 2021 Dec 1. doi:10.1001/jamanetworkopen.2021.38038

- Are the study objectives clearly stated and do they align with the methods and results?

Please state specific objectives, including any prespecified hypotheses. Did you monitor adherence to ACS guidelines? How was "essential" vascular care defined at this time (i.e., by emergency or severity)?

Methods

- Is the research design appropriate? What are the gaps, and what should be done to fill the gaps?

Please clarify whether the study followed the Declaration of Helsinki and whether the “Pima Heart and Vascular Research Committee” was responsible for institutional review board approval.

Please provide the diagnostic criteria for COVID-19 during the study period.

- Is the research methodology sound and relevant to the field? Are the methods detailed enough to be reproduced by a skilled researcher?

Please provide a detailed description of how measurement of healthcare provider contacts was performed and the procedures for contact tracing.

Please note that the authors are required to report the sex of patients. Authors must declare how this information was ascertained, i.e., self-reported, administrative data, or genetic evaluation. Studies that research one sex must include a statement explaining why the study did not include both sexes.

- Has the manuscript been prepared in accordance with the [EQUATOR Network's](#) research reporting guidelines? What are the gaps, and what should be done to fill the gaps?

To fully abide by STROBE guidelines, please describe any efforts to address potential sources of bias and explain how the study size was arrived at. For example, provide a rationale for limiting the dates of data collection to 6 weeks either side of the index date of March 20, 2020.

Results and Discussion

- Does the data appear accurate, and has it been interpreted appropriately? Flag cases of insufficient or insignificant data with the author.

Please provide characteristics of study participants (e.g., demographic, clinical, social) and information on exposures and potential confounders. In addition, indicate the number of participants with missing data for each variable of interest.

Please summarize data that are approximately normally distributed with means and standard deviations (SD). Use the form: mean (SD). Summarize data that are not normally distributed with medians and interpercentile ranges, ranges, or both. Report numerators and denominators for all percentages.

For each facility type [i.e., hospital inpatient (HIP), hospital outpatient (HOP), office-based laboratory (OBL), ambulatory surgical center (ASC), and vein center (VC)], provide a comparison of the expected number of staff and those who were present in the 6 weeks at either side of the index date, and between the groups.

- Do the tables and figures clearly present the data, and do they align with the description of key results in the text? Flag inconsistencies and inaccuracies with the author.

Please report numbers of outcome events or summary measures. I suggest combining the data in figures 1 and 2, maintaining the charts as two panels of the same figure, because tables should be used to present exact values, and figures to provide an overall assessment of the data. The best approach would be to

display the data in the bars of the figures as the relative frequencies, as the direct comparisons in the text refer to these.

Please explain how the data in the third column of table II was obtained. Explain the difference between number of contacts and touch points.

- Should the author get their data verified by a statistician or submit analyzed datasets to the journal?

Please name the statistical package or program used in the analysis and verify that that data conformed to assumptions of the test used to analyze them. In particular, specify that skewed data were analyzed with non-parametric tests and paired data were analyzed with paired tests.

Importantly, report the alpha level (e.g., 0.05) that defines statistical significance.

- Are the research implications clearly mentioned? If they are mentioned, are they sound? If they are not mentioned, what tips should the author follow?

The implications for patient management and access to vascular care in a variety of different settings have been mentioned. Nevertheless, discuss the generalizability (external validity) of the study results and whether the same “take-away” lessons could be applied to a different population.

- Are the concluding statements clear, and do they mention the contributions, limitations, and next steps for other researchers in the field?

Although the conclusions are clear, their justification was unclear. Please give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence. Use some of the studies suggested above to inform this section.

Additionally, discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias. Could the number of expected touch points for group 2 outside the OBL and ASC have been over-estimated? What would be the consequences of this for the conclusions gathered from this study?

Senior Science Editor's Comments on Language and Paper Structure

- How was the paper's overall language quality prior to editing?

The language needed several improvements. However, overall, the organization of the structure and flow (i.e., ordering of text) was more of an issue than the quality of the language or grammar. Please refer to the tracked changes and my comments in the manuscript.

- What were the top 3 recurring grammar and language issues found and edited for native tone?

The use of patient first wording is strongly encouraged. Journals strongly prefer (and some require) patient-first phrasing: That is, writing “patients with [disorder]” instead of “[disorder] patients” (e.g.,

“patients with cancer” instead of “cancer patients,” when referring to patients, to prevent them from being dehumanized or defined by their disorder.

Original: cancer patients

Revised: patients with cancer

Some abbreviations were used without being defined, and conversely some abbreviations were provided when they were not needed. As a general rule, all abbreviations should be defined the first time that they are used in the abstract, the first time that they are used in the main text, and in figure legends and table footnotes if abbreviations are used. This is so that each of these elements can be understood on their own, without referring to other parts of the manuscript. Abbreviations should only be provided in the text if the term is used multiple times. There is no need to provide abbreviations for terms that are used only once or twice.

Original: OBL

Revised: office-based laboratory

Do not use the term “COVID-19 infection.” Although the term is widely used, it is technically incorrect. Use “COVID-19” when referring to the disease, and “SARS-CoV-2” when referring to the virus/infection.

- Does the edited paper adhere to the target journal's language preference?

The journal uses American English. The spelling was in American English, but the dates were in British English format, so I changed the format. In American English, the month is written before the day (e.g., December 10, 2024), whereas in British English, the day is written before the month (e.g., 10 December 2024).

- What types of changes were made for improvements to paper flow and how has the paper's readability improved because of these?

I moved several sections of text to improve the flow.

For clarity, I changed Group 1 and Group 2 to Period 1 and Period 2, respectively, throughout.

Abstract: The abstract was in unstructured format, whereas the journal requires a structured abstract. The abstract lacked an introduction, so I have added an introduction based on the information in the paper. Please also fill in the missing results, flagged in my comments.

Introduction: The introduction started rather abruptly and did not read like an introduction. I remedied this by moving the first sentence to the end of the Introduction section, and the rest of the first paragraph to the Methods section. I also moved some text from the Methods section to the last paragraph of the Introduction.

Methods: I moved text from the Introduction section to the Methods section, as described above. I moved the last sentence of the Methods section to the beginning of the Results section.

Results: Apart from moving the last sentence of the Methods section to the beginning of the Results section, the Results section did not need any intervention to improve the flow.

Discussion: The Discussion flowed well. However, it does not contain a paragraph on the limitations of the study. I recommend that you add a paragraph. I moved the last paragraph of the Discussion section to the Conclusion section because it fits better in the Conclusion section.

Conclusion: The original Conclusion was somewhat brief and inconclusive. I addressed this by moving some text from the Discussion section to the Conclusion section.

The overall paper is a lot clearer and flows a lot better as a result of these changes. However, some additional changes are needed to improve the readability and flow:

In the Methods section, please provide more details on the setting and the methods of statistical analysis.

At the end of the Discussion section, please provide a paragraph on the limitations of your study and scope for future research. Please also see the suggestions in the peer reviewer's comments in this report.

Senior Science Editor's and Managing Editor's Comments on the Paper's Journal Readiness

- What details or documents are missing in the paper submission package based on the target journal's formatting and submission requirements?

The authors' names, degrees, and affiliations, and the name and contact details need to be provided in the abstract file.

I was unable to find references 6, 7, or 9 cited in the text. They either need to be cited in the text or need to be removed from the reference list and the remaining references and reference citation need to be renumbered accordingly.

The tables, figures, and figure legends were not included for editing and were provided as reference files. Each of these must be submitted as a separate file.

Please review the Introduction section that I added to the abstract.

In the Methods section, please provide more information about the setting and the statistical methods, and please add the ethics approval number.

In the Discussion section, please provide a paragraph on the limitations.

All manuscripts must be accompanied by a completed Application for Publication. However, I was unable to access this form because the link appears to be broken. The Application for Publication form may contain all the necessary declarations such as Conflict-of-Interest declaration. However, I do not

know this for certain because I was unable to access the form. I recommend reaching out to the journal to verify these requirements.

- List out the journal's author preferences and formatting instructions (including the right file formats) that could not be followed and why.

I was unable to access the Application for Publication form on the journal website. Please check this with the journal.

I was unable to resolve the missing reference citations in the text.

Does the target journal have a word count limit, and does the paper adhere to this limit after editing?

The abstract has an absolute word limit of 400 words, but the preferred length is 250 words. The edited abstract is within the word limit.

The main text has a word limit of 3500 words. The text is under 2000 words, so it is well within the word limit.

The limit on the number of figures and tables is 10. There are 2 tables and 2 figures, so the number of tables and figures is well within the limit.

The number of references is limited to 40. There are currently 10 references (including the 3 references not cited in the text, so the number of references is well within the limit.

- Does the paper need to be split for submission?

I have saved the abstract as a separate file (in addition to keeping the abstract in the main manuscript file, according to the journal instructions. The tables, figures, and figure legends all need to be submitted separately.

- Does the paper need to be blinded for review, and has it been blinded?

The paper does not need to be blinded for review.

- Have ethical and financial declarations been provided? If not, alert the author to do so and explain why.

There were two conflicting statements about ethics approval: One statement stated that the study had ethics approval, and the other stated that the study was exempt from the requirement for ethics approval. No ethics approval number was provided.

The journal instructions do not mention financial declarations. They may need to be provided in the Application for Publication form that I was unable to access.

- Is a conflict-of-interest statement provided? If not, alert the author to do so and explain why.

No conflict-of-interest statement is provided. A conflict-of-interest statement is required. This needs to be provided in the Application for Publication form.

- Has a data availability statement been provided? If not, alert the author to do so and explain why.

The journal instructions do not mention financial declarations. They may need to be provided in the Application for Publication form that I was unable to access.

- Has the corresponding author been identified for journal interaction?

None of the authors have been identified. The author details, including the corresponding author details, need to be added to the abstract file.

- Are all the references, tables, and figures present?

The tables and figures are present. References 6, 7, and 9 appear in this reference list, but I was unable to find them cited in the text. Please include the missing citations before submission.

- Are the references in the right format and the figures and tables labelled appropriately?

I did not check the formatting of the references because they were excluded from the edit.

The tables and figures are present and have been labelled correctly.