

Checklist for reviewers of manuscripts submitted to *Biochemia Medica*. This checklist is intended only to provide guidance; reviewers are not obliged to answer all questions, especially if they feel they lack the necessary competence.

Title

1. Is the title informative? Is it too long?
2. Does it relate to the content of the article?

Key words

1. Are the keywords appropriate? Do they reflect the content of the article?

Abstract

1. Is the *Abstract* structured?
2. Is there an aim and a hypothesis?
3. Do the authors list the number of patients/groups and study design?
4. Do the authors provide their key results (with numbers and P values)?
5. Is the conclusion based on the results of the study?
6. Is the conclusion in the *Abstract* identical to the conclusion at the end of the *Discussion*?

Introduction

1. Do the authors explain the background of the problem?
2. Do the authors list recent relevant studies?
3. Do the authors clearly elaborate their hypothesis?
4. Does the study have novelty?
5. Is there a clear and unambiguous aim at the end of the *Introduction*?

Materials and methods

1. Is the *Materials and methods* section structured?
2. Are the following subheading used (if applicable): *Study design, Subjects, Blood sampling, Methods, Statistical analysis*?

Subjects

1. Do the authors correctly indicate the type of study (e.g. observational, prospective, retrospective, diagnostic accuracy, analytical validation)?
 2. Do the authors follow the recommended reporting guidelines for their type of study (available at <http://www.equator-network.org/>)?
 3. Do the authors indicate the number of groups and patients within groups?
 4. Are precise inclusion and exclusion criteria provided?
 5. Are criteria for diseases and conditions clearly defined and referenced (if applicable)?
 6. Is the control group described in sufficient detail?
 7. Is the method of recruitment described adequately?
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8. Do the authors clearly state how they determined the absence of disease in control individuals?
 9. Did study participants sign informed consent?
 10. Was the study approved by the relevant institutional ethical committee?

Blood sampling

1. Was blood sampling performed in the fasting state?
2. What tubes, additives and volumes were used? Additive? Volume?
3. How many tubes were used?
4. Was testing performed immediately or were samples aliquoted and stored?

Methods

1. Is manufacturer information provided for all reagents and equipment used?
 2. Do the authors list all tests performed in the study? Were all the tests listed in the *Materials and Methods* section actually performed, and are results provided in the *Results* section?
 3. Are the methods explained in sufficient detail?
 4. Are any non-standard methods described in sufficient detail?
 5. Is CV provided for non-standard methods, such as ELISA assays, new biomarkers, or assays for specific proteins? Do the authors clearly state whether the CV they report is based on manufacturer specifications or their own measurements?
 6. Are QC measures explained (if applicable)?
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Statistical analysis

1. Have all data sets been tested for normality, and is the name of the normality test provided?
2. Do the authors list all the tests used?
3. Do the authors explain their rationale for using different tests?
4. Is the level of statistical significance provided?
5. Are the name, version and manufacturer of statistical programs provided?

Results

1. Is the statistical analysis appropriate? Are the correct statistical tests used?
2. Are summary data provided as mean \pm SD for normal distributions (if ≥ 30 subjects)?
3. Are summary data provided as median (Q1-Q3) for non-normal distributions (if < 30 subjects)?
4. Is age provided as median (min-max)?
5. Are the tests mentioned in the *Results* the same as those listed in the *Statistical analysis* section of *Materials and Methods*?
6. Do the authors explain any missing values?
7. Do the authors provide P values for all tested differences?
8. Do the authors repeat their results in tables and in the text?
9. Are the tables informative? Are column and row titles logical and informative?
10. Do the authors refrain from using percentage if there are fewer than 100 subjects?
11. Do the authors refrain from using expressions like "effect" and "cause" if they have not performed an experiment? In the case of an observational study without intervention, do the authors limit themselves to talking only about associations?
12. Do the authors refrain from using expressions like "decline" and "increase" to describe the differences in concentrations between groups, and instead use those terms only to describe changes of one group through multiple measurements over a period of time? If the study is observational (whether case-control or cross-sectional), do the authors limit themselves to indicating only whether there is a difference between groups?

Discussion

1. Does the *Discussion* start by listing the key results of the study?
2. Do the authors comment on their results and how they support or fail to support their hypothesis?
3. Do the authors discuss other studies and how they relate to their findings?
4. Do the authors discuss causal relationship only if their study was interventional and otherwise limit themselves to talking only about associations?
5. Do the authors indicate the added value of their work? Do they indicate what is new in their study and why this study is important?
6. Do the authors clearly describe the limitations of their study?
7. Do the authors draw clear and unambiguous conclusions based solely on their results?
8. Do the conclusions go beyond the results of the study?
9. Is the *Conclusion* identical to the *Conclusion* part of the *Abstract*?

References

1. Are the references up-to-date?
 2. Are the references formatted according to journal style?
 3. Are references numbered consecutively in the manuscript?
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