HOW TO REVIEW A PAPER TO

ACTA REUMATOLOGICA PORTUGUESA

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I have been invited to review a manuscript...
BEFORE WRITING THE REVIEW
At first glance

• Is this topic relevant to our journal?

• Does it address an important subject?

• Is there a clear hypothesis or aim stated?

• What does the study adds to the current knowledge?

• Is there a clear clinical message?
At first glance

• Which category does this manuscript best conform?

• Is the methodology adequate?

• Is the study original? Has it been previously published?

• Is the study timely?

• Are there any potential biases in reviewing this manuscript?
ABSTRACT
The abstract must appropriately summarize the manuscript.

Should be understood without reading the manuscript.

Discrepancies between the abstract and the main body of the manuscript should be depicted.
Abstract

The abstract must contain the aim/objectives stated in a clear (not vague) and intelligible language.

For original articles the authors should include:

- Objectives: the major objective of the study
- Methods: how the study was performed
- Results: the study findings
- Conclusions: report whether the major goal was met.
• Do authors provide a rationale for performing the study based on a review of the literature?

• Is the purpose of the study clearly explained?

• If the manuscript is an original article, is the hypothesis well defined?

• Is the introduction succinct?
The purposes of the introduction are:
• to provide the rationale for the study
• to explain the study’s goals

The reviewers must address if the manuscript will bring a true new contribution to the medical knowledge:
– does this manuscript cover an important topic?
– has the research question been previously answered (was the topic of the manuscript well covered before)?
METHODS
• Inadequate methodologies can lead to unreliable results.

• Ethical requirements need to be guaranteed
  – Has confidentiality been maintained?
  – Have accepted norms for the ethical treatment of animal or human subjects been respected?
  – Informed consent (if applicable)
  – Does the article copies previously published work? (Plagiarism)
  – Are the results in any way fraudulent?
• Are the methods reproducible?
  • Could other investigators reproduce the study using the methods as outlined and are they stated clearly?

• Are the methods suitable for the research question?
  • Do authors justify their choices for the study design (e.g. statistical methods, outcome measures, imaging techniques, etc)?
  • Do methods allow the stated hypothesis to be tested?
Methods

• Which type of research is it?
  – Observational/experimental?
  – Single case/case series/case control/cohort?
  – Randomized, controlled and blinded?
  – Meta-analysis?
  – Prospective or retrospective?
  – Cross-sectional or longitudinal?

• Is there summary information about the patient or experimental group(s), including length of follow up?
• Statistical considerations:

  – Sample size calculation: are there enough patients/experiments to draw clear conclusions?

  – Have the correct tests been used to compare outcomes?

  – Is there a clear description of the applied tests?
Formal guidelines for publishing clinical trials & systematic reviews

CONSORT for clinical trials

• Flow diagram, exclusions, power calculations, concealed random allocation, patients lost to follow up, etc.


QUORUM for systematic reviews

• Inclusion and exclusion criteria, publication bias, etc.

Lancet 1999;354:1896-900
RESULTS
Results

• Are the results clearly explained?
  – Poorly executed analysis of the data
  – Poorly organized results

• Does the order of presentation of the results parallel the one of the methods?

• Are the results reasonable and expected, or are they unexpected?

• Are there results that were not introduced in the Methods section?
DISCUSSION
Discussion

• Is the study discussed against the background of current knowledge (include discrepancies)?

• Are the authors’ conclusions based in the study results?

• Is there a clear clinical or scientific message?

• Was the initial hypothesis verified or falsified? Or if no hypothesis was proposed, was the research question answered?

• Are the results interpreted accurately?
Discussion

• If there are unexpected results, do the authors adequately discuss them?

• Do the authors note limitations of the study? Are uncertainties and biases discussed? Are there additional limitations that should be highlighted?

• Is there either missing or duplicate information?

• Is the discussion concise? Where should it be shortened?
TABLE AND FIGURES
Tables and Figures

• Accurate with a clear structure and presentation?

• Are data consistent with the body of the paper?

• Are figures and graphs appropriate and labelled?
  • Are they understood without referring to the remainder of the manuscript?

• Avoid duplication of data
Tables and Figures

- Do the figures and graphs adequately show the important results?

- Would a different figure better illustrate the findings?

- Do arrows need to be added to depict important or subtle findings?
Title

• Does the title convey the content of the manuscript accurately?

• Should not contain acronyms

• As concise as possible
References

• Does the reference list respects the journal’s guidelines?

• Does the reference list contains errors?

• Are there important references that are not mentioned and that should be noted?

• Are there more references than are necessary?