JNMT Reviewer Checklist for Original Scientific Research Articles

Overall impression
- ☐ Is the research original, novel, and contemporary?
- ☐ Will the information be useful for technologists?
- ☐ Is the manuscript understandable?
- ☐ Does it move logically from hypothesis, methods, results, discussion, and conclusion?
- ☐ Are there grammar or spelling mistakes?
- ☐ Is the length of the manuscript appropriate for the amount of new information provided by the data?
- ☐ Should this manuscript be published?

Abstract
- ☐ Does the abstract summarize the objective(s), methods, results, and conclusions of the research?
- ☐ Is the most important information included?

Introduction
- ☐ Does the introduction introduce the subject and discuss what is known?
- ☐ Does the introduction explain what is unknown about the topic?
- ☐ Is it clear how the research addresses the issue?
- ☐ Are the study aims and hypotheses clearly stated?
- ☐ Is the introduction well organized?
- ☐ Is there any unnecessary information that is not directly related to the study aims and hypotheses that could distract the reader?
- ☐ Is there any information that really belongs in the methods?

Methods
- ☐ Can the selected methods answer the research question?
- ☐ Are the methods logically presented?
- ☐ Are the methods explained in such detail that the experiment could be replicated?
- ☐ Was information collected objectively or selectively? Were the measurement instruments described?
- ☐ Is the methodology appropriate? Are there any design flaws?
- ☐ If the study expands upon the research of others, is a rationale and references for the selected method provided?
- ☐ Is there other information that should have been provided?
- ☐ Do you have suggestions that could have improved the methodology?
- ☐ Is the statistical analysis described and appropriate?
- ☐ Are any results presented in the introduction?

Results
- ☐ Are the results logically presented?
- ☐ Do the authors summarize the main trends and themes?
- ☐ Are the findings understandable?
- ☐ Are there any obvious statistical errors?
- ☐ Does the author exaggerate the statistical significance?
- ☐ Do the authors appear to cherry-pick or omit results
- ☐ If complex or multiple statistical analyses are used, should the manuscript be reviewed by a consulting statistician?
- ☐ Is the length of the results appropriate? Too long?
- ☐ What suggestions you would make?

Tables and Figures
- ☐ Could the data have been better presented in tables and/or figures?
- ☐ Are there enough or too many tables and figures?
- ☐ Is the information presented in the text repeated in the figures and tables? (They shouldn't duplicate each other)
- ☐ Are the figures high quality and interpretable?
- ☐ Does each figure have a legend to describe the figure?
- ☐ Are the table headers and labels complete? Are all abbreviations used in the table footnoted?
- ☐ Is enough information provided in the tables and figures that they could be understood without reading the text?
- ☐ Is material presented in tables and figures consistent?

Discussion
- ☐ Does the first paragraph succinctly summarize the findings and describe what is new?
- ☐ Is the interpretation of the data justified or do the conclusions match the data?
- ☐ Do the conclusions overreach?
- ☐ Is the discussion logically presented?
- ☐ If the findings conflict with previous research, is this discussed and references provided?
- ☐ Are the limitations described?
- ☐ Is further research suggested?
- ☐ What suggestions for improvement for the discussion would you make?

Conclusion
- ☐ Is there a succinct conclusion of the study findings?
- ☐ Does the conclusion comment on the overall importance of the findings?

References
- ☐ Is the work from other appropriately referenced in the text and documented in the reference list?
- ☐ Are the cited references current?
- ☐ Are any key references or landmark research omitted?

Reference:

Curie G, McCuaig C, Di Prospero L. Systematically reviewing a journal manuscript: A guidelines for health reviewers. *J Med Imag Rad.* 2016: 129-138. Doi: https://www.jmirs.org/article/S1939-8654(16)00024-2/fulltext

Sainani K. (2015) Writing for the sciences. Retrieved from https://lagunita.stanford.edu/courses/Medicine/SciWrite./Fall2015/info