Reviewer’s report

Title: Diagnostic accuracy of cardiac MRI, FDG-PET, and myocardial biopsy for the diagnosis of cardiac sarcoidosis: A protocol for a systematic review and meta-analysis

Version: 0 Date: 22 Jan 2020

Reviewer: Garrick Stewart

Reviewer’s report:

The manuscript by Roth et al is the protocol for systematic review and metaanalysis of diagnostic accuracy for cardiac sarcoidosis. This is topic of intense conversation in this field, as clinical pathways have evolved with the advent of advanced cardiac imaging techniques in the absence of firm data on which to rest conclusions about diagnostic probability.

A few concerns should be address:
- While the Japanese Ministry of Health and Welfare criteria were formerly the most widely used, the 2014 Heart Rhythm Society guidelines (Birnie et al Heart Rhythm 2014) have been far more central to the contemporary conversation and have supplanted the Japan criteria, in part because of greater use of advanced imaging. This should be discussed accordingly.
- Similar reference and commentary should be made about the new EANM, EACVI and ASNC going procedural position statement on imaging in cardiac sarcoidosis. The theme here is that anchoring on the biopsy as the elusive gold stand confounds traditional approaches to test performance -- playing this up in the "why" behind you research will be essential to make this more impactful.
- The authors methodology assumes known or suspected cardiac sarcoid and proposes a rational flow diagram; yet most cases encountered are when a patient has a clinical event (syncope, heart block, abnormal imaging finding obtained for another reason) that the "arrows" in the flow diagram can be birection and the probability for posterior testing can be greatly influences by prior results or clinical suspicion. This will need to be carefully discussed when the final product is available for review.
- There are multiple typos, principally in the first 5 pages whereby two separate words have no space between them e.g. "foundpredominantly" and "epicardialareas" on page 5. Please correct.

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an
organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal