Reviewer’s report

Title: A randomised controlled trial of an Intervention to Improve Compliance with the ARRIVE guidelines (IICARus)

Version: 1 Date: 28 Feb 2019

Reviewer: Marc Avey

Reviewer's report:

Thank-you for the thoughtful responses to my questions.

Original Review:

Line 134: This is written vaguely. By quality, you mean completeness of reporting? Is the intervention the request (i.e. an email or pop-up box in editorial manager), or the checklist itself?

Author Response:

We have rephrased this sentence and made clear how the intervention (request for a checklist to be submitted) was delivered (by email).

2nd Review:

Thank-you for the additional clarity here. I understand the intervention that is listed on the CONSORT checklist as page 5-6 (which I think is page 8-9 in the Editorial Manger pdf) is the email request to complete the ARRIVE checklist.

Further, this email request was mandatory in appearance to authors (depending on email text), but in practice it was not mandatory because even after two emails authors who had not completed a checklist were allowed to have their manuscripts continue in the study.

I don't see the generic email included in the manuscript or on the OSF website. It seems essential for this work to include this email and the follow-up email that solicited the completion of the ARRIVE guidelines. This is would allow future studies to replicate or build upon the intervention as well as assess its face validity (e.g. was it really a mandatory request?). Please include a copy in the manuscript, or better, on the OSF website and direct readers to the OSF website.
Note: the term "request" is used consistently for the intervention but at Line 519 the term mandatory is used and in the protocol the intervention is described as "Mandatory completion of an ARRIVE checklist…"

"1.3. Intervention: Mandatory completion of an ARRIVE checklist combined with (1) removal of the processes of determining that appropriate IRB/Ethical approvals were in place, and (2) removal of attempts to identify those studies perceived to be at high risk of raising editorial difficulties."

Original Review:

Line 341: The number of outcomes and statistical options is so large here it would honestly help to have a table to know what test was done for which outcome/sub-item

Author Response:

We produced the following table but we were not clear on whether this is what the reviewer had in mind? We were not sure that this added a lot of understanding to the manuscript as the type of analyses performed for the primary, secondary, and tertiary outcomes were the same.

Outcome Summary and Inferential Statistics Calculated

Primary outcomes Chi-squared test or if N<5, fisher's test, Cohen's H effect sizes, confidence intervals

Secondary outcomes Chi-squared test or if N<5, fisher's test, Cohen's H effect sizes, confidence intervals

Tertiary outcomes Chi-squared test or if N<5, fisher's test, Cohen's H effect sizes, confidence intervals

Feasibility outcomes T-test or Mann Whitney U (nonparametric test), median values

Exploratory outcomes Cohen's H effect sizes and confidence intervals

2nd Review:

I agree that this table doesn't add a lot to the manuscript. It also appears to be missing Welch's t-test? Regardless, I suggest the authors provide readers a link in the manuscript in the statistics section to their OSF IICARusDAP document as it provides readers with the same information.
Level of interest
Please indicate how interesting you found the manuscript:

An exceptional article

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

Acceptable

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