Reviewer’s report

Title: Evaluation of a simple tool to assess the results of Ponseti treatment for use by clubfoot therapists: a diagnostic accuracy study

Version: 0 Date: 20 Dec 2018

Reviewer: Kelly Gray

Reviewer's report:

I would like to commend the authors on this piece of work. There is a clinical need for a tool which assists in identifying those with relapsing clubfoot. The main challenge with this work is that it identifies only those with significant relapse and may fail to recognise those with a good outcome who have early signs of relapse (which may then be able to be more easily managed). Having said that, I do feel this is a good simple tool which can very well serve the purpose that you have proposed it for. My suggestions therefore I feel fall under minor revisions. That is, with clear acknowledgment of the limitations this remains a useful tool. I wish the authors all the best in publication.

Minor revisions:

Page 5 - opening paragraph (Background) - In the final sentence, it would be useful to quantify the ratio of male to female risk or presentation of clubfoot.

- 2nd paragraph, final line - consider changing 'Recurrence of the elements of the deformity is therefore less common' to ' recurrent of the elements of the deformity are therefore less common.'

- 3rd paragraph. There is reference that Ponseti-laaveg and Dimeglio are complicated to use. I don't entirely agree with this comment. In particular we find Dimeglio very easy to use. However, the flaw with both is that they are not validated to identify those who have relapse which require intervention.

- 3rd Paragraph - Consider removing the part of the sentence which states 'because it does not reflect the extent of the deformity'.

- 3rd paragraph - final sentence - states' there is no agreed assessment of severity of recurrence' to improve clarity, consider stating ' there remains no consensus on when intervention of recurrence should occur'

Page 6- the final sentence before the METHODS - consider removing 'including parent reported outcome measures about the key quality of life factors that affect the child and parent.'

Page 10 (table 2) - I noted that all baseline Pirani scores were less than 4. There is a general agreement in the literature that a score of 5 or more corresponds to a more severe clubfoot which is also more likely to require an achilles tenotomy. It would be worth noting in the discussion section that your cohort are potentially less severe at baseline.
Page 12 (Table 4) - I wondered for greater clarity, if this data may be presented in another way - for example as a bar graph. I found it visually challenging in its current form.

Page 12 - consider presenting likelihood ratios - which may provide greater clinical relevance to clinicians.

Page 16 Limitations - consider the following limitations - this does not identify children who require Tibialis anterior tendon transfer until they present with significant relapse. The score is excellent at providing a cross sectional assessment however further research is required to determine if it can detect earlier relapse (via the parent reported measures). For example some Tibialis Anterior Tendon transfer studies have noted that children who require TATT's often present with pain without other signs of structural relapse.

I would consider removing the recommendation for yearly use of the tool. This should be done at every visit.

Overall this is a good paper which is written well. I wish the authors all the best in it's journey to publication.

Yours sincerely,

Dr Kelly Gray

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An article of importance in its field

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

Acceptable

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