

## Response for manuscript 66293

### Section 3 – scientific quality

#### Reviewer 1

The study entitled "Carpal Tunnel Scoring System to Predict Nerve Conduction Study Results: A Prospective Study" Comments: There are many points for major revision and concern for usefulness of this tool in a real-world practice.

1. It is highly recommended to use the TRIPOD checklist to write this manuscript because this is a prediction model study. Therefore, it is necessary to follow this checklist to improve quality of the report of the study.

This is mainly a correlation study to see if the ten-point scoring system correlates with NCS results therefore the TRIPOD checklist is not applicable

2. Title: identify the study as a developing or validation prediction model/screening tool.

It is a correlation study and is neither a developing or validation model. We have incorporated well know signs and symptoms and therefore not developing or validation a prediction model/screening tool.

3. Introduction: Previous predictors from other studies are not well stated.

This was addressed by discussion of the boston carpal tunnel syndrome questionnaire, Katz hand diagram, CTS-6. Main finding points are discussed. Also, a systematic review is referenced in the introduction and it is stated that the main finding of this systematic review is that there are limited evidence currently to support the use of scoring systems in carpal tunnel syndrome. We aim to contribute a new way of combining classical signs and symptoms. It is beyond the scope of this paper to write in details about these studies, but it is reference for further reading.

4. Introduction: The authors need to make it clear in this part regarding usefulness of this tool, such as how this tool will change practice, and in what level? Who actually need this particular tool?

We have suggested that this scoring system can be used clinically, but that is not what we are doing in this current study. The current study is just to assess if this scoring system can correlate with the NCS results and we actually need further studies looking into using this clinically as an adjunct to the clinical diagnosis and how it would influence decision making. We also need to validate this scoring which again is beyond the scope of this paper. In this current study, we did not use the score to directly influence our management of the patients.

5. Method: The authors need to explain regarding sample size, such as how to calculate sample size, and how many sample sizes would be required to have alpha error and beta error of 0.05 and 0.2 respectively.

6. Method: The authors need to describe inclusion and exclusion criteria.

Amended – in methods

7. Method: How was this scoring system acquired? The authors created themselves or taken from previous studies. Please explain the performance of this scoring system.

These points of the scoring system are taken from well-known signs and symptoms. This is explained both in the methods and introduction.

8. Method: The authors need to explain the detail of factors in this scoring system, such as the definition of Nocturnal Paresthesia. Additionally, it should be added in the footnote in Table 1.

Amended in methods

9. Method: Why the authors use only a one-way ANOVA test to test the difference between groups? Did you use the Kruskal-Wallis test? Please explain this issue to your statistical part.

The one-way ANOVA compares the means between the groups you are interested in and determines whether any of those means are statistically significantly different from each other. I wanted to know if there were statistical differences between the different NCS groups.

10. Method: Why the authors were not collected data about the comorbidities of the participants?

This was not part of the protocol as it is a correlation study and we have not used the score to influence our management of the patients. We concluded that the scoring may help with determining whether patients should have NCS. NCS is currently not a requirement of diagnosis on CTS in the UK.

It is specified in the paper – ‘We did not have the co-morbidities or occupation of the patients and we did not re-do the scores after surgical decompression to see if the score can be used to monitor outcome post CTD. Future studies can address these issues.’

11. Result: The authors need to add the table of baseline characteristics of included participants in each group.

This is difficult as some of the data was not included in the original protocol therefore was not collected. We included basic demographics on the results within the text itself and therefore, we do not feel a table would add to the paper.

12. Result: The authors need to add the enrollment of study patients flow in each group.

Again, this is a correlation study looking at all patients with CTS. This is not a randomised controlled study or systematic review and all patients with CTS had the scores applied therefore there is no patient flow. The scoring system was also not part of the decision-making regarding management of the patient in this study.

13. Result: The authors should be shown the performance and diagnostic tests of this scoring system, such as sensitivity, specificity, accuracy, AuROC, PPV, NPV, positive likelihood ratio, and negative likelihood ratio.

We simply wanted to show correlation between the score and NCS results and that this can be used in the future but further studies using this score clinically would address these aspects.

14. Result: Please show effect size and 95%CI of CTS score comparing with each group.

Not applicable - as this is a simple correlation study of our scoring compared with the NCS findings.

15. Discussion: Please provide the strengths of this study. Additionally, the authors should be describe the suggestion in practice.

We have repeated many times in the paper this scoring can be used to help decide if patient need NCS as it is something that is not mandatory for CTS in the UK.

16. Conclusion: You recommended that "Use of our simple scoring methods can determine patients with moderate and severe CTS and in these patients, we recommend not using NCS. Patients scoring less than 8 may have mild or moderate CTS and, in these patients, we recommend the use of NCS." Can you provide the relevant evidence to support your recommendation?

The recommendation came from our results and our findings of the correlation. Further validation studies would be required.

17. Other comments: Need English editing.

Paper have been checked. Also, I like to point out reviewer 2 gave this paper a grade A for language quality.

## Reviewer 2

The authors demonstrate a new score to define the severity of CTS. Clinical diagnosis and severity are often discussed in literature to determine treatment strategies and the necessity of further analyses such as NCS. The authors therefore assess their score consisting of clinical symptoms and risk factors. Although not very creative, it is relevant for

daily clinical routine. The presented data is clear, and the manuscript is well written. I have some minor aspects:

I think it would be interesting for the reader to see the correlation of your score and your treatment. E.g. if a score of 9 was met I guess immediate decompression was performed.

The scoring systems was not used to determine management. All patients with a diagnosis of CTS had the scoring and NCS but management option was decided by the clinician.

Can you add some treatment strategies according to the reached score?

As we have not used the score to stipulate treatment options, I have refrained from stating this and perhaps in future studies when we use it to clinically determine treatment, we may offer treatment recommendation.

We concluded the score can be used to determine if NCS should be used as it is not compulsory to have this in the UK for a diagnosis of CTS.

Where would you draw the line between conservative and operative treatment? Do you only use NCS or further analyses (Ultrasound etc)

This is beyond the scope of our scoring system which is to look at correlation between the scoring and NCS score. Perhaps in future studies we can look into this.

#### **4 LANGUAGE QUALITY**

All authors work in the UK and are UK graduates. The 1<sup>st</sup> author is British, and a native English speaker educated in the UK her from primary school to postgraduate university level.

#### **5 ABBREVIATIONS**

Amended

#### **6 EDITORIAL OFFICE'S COMMENTS**

(1) Science editor: 1 Scientific quality: The manuscript describes a prospective study of the carpal tunnel scoring system. The topic is within the scope of the WJO. (1) Classification: Grade C and Grade C; (2) Summary of the Peer-Review Report: The authors demonstrate a new score to define the severity of CTS. Clinical diagnosis and severity are often discussed in literature to determine treatment strategies and the necessity of further analyses such as NCS. The presented data is clear, and the manuscript is well written. However, there are some issues need to be addressed. The questions raised by the reviewers should be answered; and

Done

(3) Format: There are 2 tables. (4) References: A total of 22 references are cited, including 1 reference published in the last 3 years; (5) Self-cited references: There are no self-cited references; and (6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to [editorialoffice@wjgnet.com](mailto:editorialoffice@wjgnet.com). The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately. 2 Language evaluation: Classification: Grade A and Grade C. The authors need to provide the language certificate of professional language company.

Earlier in this reviewer's comment, it is stated 'The presented data is clear, and the manuscript is well written.' Also, 1 reviewer gave Grade A for language. The 1<sup>st</sup> author is British and a native English speaker with a medical degree from a UK university and also a higher postgraduate degree from a UK university. The 1<sup>st</sup> author has published in other high impact English language journals and have never been asked to provide a language certificate of a professional language company. I feel this comment is unnecessary and unjust.

3 Academic norms and rules: The authors provided the Biostatistics Review Certificate and CONSORT 2010. The authors need to provide the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement, the Institutional Review Board Approval Form, informed consent, and Clinical Trial Registration Statement. No academic misconduct was found in the Bing search.

As there was no actual direct influence on the management of our patients, our hospital decided that individual patient consent was not needed, and all parts of the scoring system were part of the routine assessment of CTS during routine assessment.

This was deemed by our department as an audit and therefore no clinical trial registration is required but a clinical trial registration statement is included in the submission.

Institutional review board approval form included in submission.

Conflict-of-Interest Disclosure Form and Copyright License Agreement included.

4 Supplementary comments: This is an invited manuscript. The topic has not previously been published in the WJO. The corresponding author has not published articles in the BPG.  
5 Issues raised:

(1) I found the language classification was grade C. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240>; (2) I found no "Author contribution" section. Please provide the author contributions;

Earlier in this comment it is stated 'The presented data is clear, and the manuscript is well written.' Also, 1 reviewer gave Grade A for language. The 1<sup>st</sup> author is British and a native

English speaker with a medical degree from a UK university and a higher postgraduate degree from a UK university. The 1<sup>st</sup> author has published in other high impact journal and have never been asked to provide a language certificate from a professional language company. I feel this comment is unnecessary and unjust. I am willing to re-edit the manuscript, but I am not willing to provide a language certificate especially when I am a native English speaker and English is my 1<sup>st</sup> language. Having had publications in British medical journal open, Journal of children's orthopaedics, Journal of pediatric orthopaedics B, Journal clinical orthopaedic trauma, British Medical Journal case report, British journal of neurosurgery and student British medical journal, all of which have never asked this from me. I would also like to note most of these are UK based journals and all have been published in English.

The manuscript has been re-edited by the 1<sup>st</sup> and 2nd author, both native English speaking, UK graduates.

(3) I found the authors did not add the PMID and DOI in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout;

Added.

Reference 1, 8, 20 does not have a DOI on pubmed

PMID and DOI not application to reference 13

(4) I found the authors did not write the "article highlight" section. Please write the "article highlights" section at the end of the main text;

Added

(5) the author should number the references in Arabic numerals according to the citation order in the text. The reference numbers will be superscripted in square brackets at the end of the sentence with the citation content or after the cited author's name, with no spaces.

Amended

6 Re-Review: Required. 7 Recommendation: Conditionally accepted.

(2) Company editor-in-chief: I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Orthopedics, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before its final acceptance, please upload the primary version (PDF) of the Institutional Review Board's official approval in official language of the authors' country to the system; for example, authors from China should upload the Chinese version of the

document, authors from Italy should upload the Italian version of the document, authors from Germany should upload the Deutsch version of the document, and authors from the United States and the United Kingdom should upload the English version of the document, etc.

Institutional review board approval included.