Author's response to reviews

Title: Diagnostic properties of nerve conduction tests in population-based carpal tunnel syndrome

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We thank the reviewers for their very helpful comments and suggestions, which we have addressed in the revised manuscript:

Response to the report of Dr. Michel E.H. Boeckstyns:

1. Evaluation of the standardized hand symptom diagram has been added as one of the purposes of the study in the introduction.

2. The number of persons from which the sensitivity, specificity and predictive values were derived, have been added to Table 3. From these numbers and the definitions shown, the exact numbers of true positive, true negative, false negative and false positive cases can be easily calculated.

3. The sensitivity and specificity of the hand symptom diagram have been added to the Results section, "Hand diagram".

4. Information concerning absent sensory responses was presented in the caption to Table 1. For further clarity we have added "Table 1" to the relevant sentence in the Discussion.

5. The discussion might be relatively long but we felt it was important to discuss all relevant aspects of the study's findings in relation to current literature and practices.

6. The statement that the performance of the nerve conduction tests reported does not necessarily apply to clinical settings is now included in the Abstract's conclusions.

Response to the report of Dr. N. Jollyon Smith:

a)

1. The term "false positive rate" has been replaced with the term "false positive test results" throughout the manuscript to avoid misinterpretation.

2. The prevalence of CTS was the main subject of a previous publication cited in this manuscript. To avoid repetition of previously published data and further lengthening of the manuscript we have not focused on the prevalence in this study but mentioned it where appropriate. A statement regarding the dependence of the positive and negative predictive values of a test on the prevalence of disease has been added to the Discussion. The data on which the calculations of sensitivity, specificity and predictive values were based have been added to Table 3 and the number of responders for the
different groups appear in the text of the Results section. We believe the relevant data have now been adequately presented.

3. In Table 1 and Table 3 the values and 95% confidence intervals are now quoted without rounding.

4. We agree the finding that distal motor latency values had sensitivity comparable to sensory measurements is surprising. We have acknowledged this discrepancy with previous literature and mentioned possible explanations, which we described as methodological differences and other factors; these have been clarified in the discussion. We hope that other researchers would investigate this particular issue in a future population-based study.

b)

1. The upper case "T" has been changed to lower case.

2. The phrase has been corrected as requested