Reviewer's report

Title: Carpal tunnel syndrome and the use of computer mouse and keyboard A systematic review

Version: 1 Date: 30 November 2007

Reviewer: Arianne Verhagen

Reviewer's report:

This manuscript presents a systematic review. This manuscript presents the results of two different aims.

General comments
1. In general I think the authors should focus on one aim: an overview of the associations between computer work (and low force repetitive work) and CTS.
2. I also advice to omit the word "causal", because any causal relationship can only be determined from unbiased randomised clinical trials (or perhaps large unbiased prospective cohort studies). This is not the case in this review.
3. I would strongly advice to use the QUOROM statement in revising this manuscript.

Specific comments
Background:
1. The background should incorporate some information on pathophysiological mechanisms and other epidemiological data (now presented as secondary aim). They should focus in this manuscript only on the primary aim (see page 3 first sentences last para).

Method:
2. The method section does not include all elements that should be included, see QUOROM statement.
   a. The search strategy is well described, but the search results should be omitted here and presented in the result section.
   b. Concerning the selection criteria the authors are confusing: first they state on page 5 that they include cross-sectional and longitudinal studies, but later on they state that "Only studies with a prospective design . . . were included". I would sincerely opt for the latter selection criterion and omit all cross-sectional and case referent studies from the review.
   c. The CTS case definition should be rephrased into one or two sentences because it might act as a selection criterion. Philosophies about the rationale of several choices of definition can be done in the discussion para.
   d. Same accounts for "exposure assessment". Here all results from how the included studies assess exposure should be omitted and placed in the result
section.
e. No quality assessment is described in the method section, but still the authors state they assessed study limitations. The procedure and criteria of this assessment need to be described in the method.
f. Also a clear analysis is lacking. The authors present a classification system without explanation when one decides that a level of evidence is e.g. sufficient. Furthermore I have sincere problems with this classification system, because one can never conclude that for instance there is sufficient evidence for no association.

Results:
3. The result section is much too long. All included, and some not included studies, are described in detail, this is not necessary.
4. The authors do not select the study of Gerr et al [22], because the prevalence of CTS is too low. Never in the method this selection criterion is stated, nor is explained what the authors consider as “too low”. To my opinion this study needs to be included and the finding of a low prevalence should be reported as a result and discussed about.
5. No results concerning the evidence synthesis are presented. Please do so.
6. Replace a summary of the information from page 14-17 into the background or discussion.

Discussion:
7. Here the authors suddenly mention that the included studies had important limitations, but neither in the method section nor in the result section I can find a clear description of how these limitations are assessed and what exactly the results are.
8. I miss a discussion about the strength and limitations of their own study.

Table
9. The table contains too much detailed information. Please also present the most important the findings presented in the table in the text of the manuscript.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests