Reviewer's report

Title: Perceived exertion, comfort and working technique in professional computer users and associations with the incidence of neck and upper extremity symptoms

Version: 1 Date: 22 August 2011

Reviewer: Finlay Dick

Reviewer's report:

The authors have explored, in a large prospective cohort study of professionals using computers, the associations between perceived exertion, comfort and working technique (ergonomist assessed) and incident neck, shoulder and arm/hand symptoms. The question is well defined and the methods are appropriate and, for the most part, well described. More information on the study population and in particular the attrition of participants would be helpful. The discussion is well balanced although the authors go beyond the data presented here when they suggest, in the conclusions, that ‘screening for exertion and comfort during computer work could be used as a cost effective and efficient tool for early detection of incipient neck and upper extremity symptoms.’ The high incidence of cases observed would merit further discussion. The title and abstract accurately convey what has been found with the exception of the abstract conclusion which mirrors the conclusion in the main paper. This paper is well written and sources are acknowledged.

Major compulsory revisions

1. Methods, Data treatment and analysis, paragraph 1, line 4
   How robust are the study’s findings if the definition of a ‘case’ (defined as a participant who reported symptoms lasting three or more days affecting any of these body regions during the preceding month) is varied? Do these associations still hold if a more conservative case definition (e.g. symptoms for 10 days in the preceding month) is applied?

2. Conclusion, paragraph 1, line 3.
   The authors have shown an association between perceived exertion and risk of the development of neck, shoulder, and arm/hand symptoms. However, the authors then suggest that ‘screening for exertion and comfort during computer work could be used as a cost effective and efficient tool for early detection of incipient neck and upper extremity symptoms.’ This might be so but they do not present any economic analysis to support the cost-effectiveness of such screening nor is the sensitivity and specificity of this instrument discussed. This concluding sentence should be revised or the data which supports these statements presented.

Minor essential revisions
3. Supplementary file 1
The table is truncated in the middle of the arm/hand column: this should be revised.

4. Methods, paragraph 2 line 1 Please indicate how many ergonomists were involved in data collection.

5. Results Follow-up paragraph 1 line 8 How many participants dropped out early?

6. Results paragraph 1 line 2 The high incidence of cases observed merits further consideration in the discussion.

Discretionary revisions
1. Methods, Study population, paragraph 1, line 6
The authors have relied on self-reports of computer use – although widely used how reliable is this metric? The merits of self-report versus computer logged usage might be briefly considered in the discussion.

Minor issues - not for publication
Background paragraph 1, line 11 ‘factors related the work place or work organizational’ please rephrase – ‘factors related to the work place or work organization’ might read better.

Methods, Data treatment and analysis paragraph 1, line 9 Extra full stop should be deleted.

Methods, Data treatment and analysis, paragraph 4 lines 2 and 4. It is unclear why a is shown in bold in these lines.

Results, paragraph 1 line 6 ‘the risk of experiencing symptoms in any of the other regions under investigation was also higher (Table 1).’ – ‘was also’ is repeated

Discussion, Perceived exertion and comfort, paragraph 1, line 14 ‘seen’ is in bold but it is not clear why.

Discussion, Perceived exertion and comfort, paragraph 1, line 20 ‘As’ is in bold but it is not clear why.

Discussion, Working technique, paragraph 2 line 1 and 2 and 7 ‘One’ and ‘was’ and ‘a’ are in bold.

**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