Reviewer's report

Title: NEUROPSYCHOLOGICAL outcome after carbon monoxide exposure following a storm

Version: 1 Date: 16 May 2014

Reviewer: Roger CM Ho

Reviewer's report:

1. Is the question posed by the authors well defined?

Yes, it is not easy to study carbon monoxide (CO) poisoning. The authors took this opportunity to study CO poisoning and I appreciate the efforts which they have put in.

2. Are the methods appropriate and well described?

It will be very useful to the readers if the authors can provide more information on how Cohen's d was generated by comparing patients and controls in different neuropsychological test and education levels.

3. Are the data sound?

The authors stated that patients had significantly lower cognitive performance than controls on Pg 8. The authors assumed effect sizes equate to significant results. The authors did not show p-values for those results. There are inconsistencies as the authors showed p-values for differences in depression and PTSD scores between two groups. I suggest the authors to show the p-values for all results.

The authors did not show depression and PTSD scores in Figure 1. Perhaps they should include the results there.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

I recommend the authors to show p-values for significant results.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

Under conclusion of abstract, the authors cannot conclude about delayed psychiatric outcomes because the authors did not assess when cognitive impairment started to occur.

6. Are limitations of the work clearly stated?

The authors should state that they did not perform cognitive assessment on
multiple time point to detect delayed neuropsychiatric complications.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes.

8. Do the title and abstract accurately convey what has been found?
   There is no need to use capital letters for Neuropsychological. The authors should add case-control study in the title.
   Neuropsychological outcome after carbon monoxide exposure following a storm: a case-control study.

9. Is the writing acceptable?
   Grammar mistakes: Pg 6: two studies in which (not two study); who did not enter (not did not entered)