Author's response to reviews

Title: Prevalence of the metabolic syndrome in Luxembourg according to the Joint Interim statement definition estimated from the ORISCAV-LUX study

Authors:

Ala’a Alkerwi (alaa.alkerwi@crp-sante.lu)
Anne-Françoise Donneau (afdonneau@ulg.ac.be)
Nicolas Sauvageot (nicolas.sauvageot@crp-sante.lu)
Marie-Lise Lair (Marie-Lise.Lair@crp-sante.lu)
André Scheen (Andre.Scheen@chu.ulg.ac.be)
Adelin Albert (aalbert@ulg.ac.be)
Michèle Guillaume (mguillaume@ulg.ac.be)

Version: 2 Date: 8 November 2010

Author's response to reviews: see over
Dear Mrs Natalie Pafitis,

We thank the reviewers and the editor for their valuable comments which have helped improve the paper.

Our point-to-point responses to the reviewers’ comments are given below, and revisions are highlighted in the text in blue.

We hope that the revised version is now suitable for publication in your Journal.

Yours sincerely,

Ala’a ALKERWI

Centre de Recherche Public Santé,
Centre d’Etudes en Santé,
Grand-Duchy of Luxembourg.

Second address: School of Public Health,
University of Liège, Belgium.
Reviewer: Roya Kelishadi

Reviewer's report:
The paper provides novel information and has a good rationale supported by sophisticated statistical analyses; however some revisions should be taken into account:
• Some keywords are not compatible with MeSH.

OK. After the consultation of our medical librarian opinion, the key words have been modified to be compatible with MeSH.

After verification of BMC journal’s instruction, the key words are not really a mandatory issue. Therefore, we would suggest deleting this sentence, if this classification constitutes a problem.

• In the abstract's results, it is stated: "The 10-year predicted risk of CHD by Framingham risk score (FRS) did not depend on the threshold used." Without any previous description in Methods and in Background.

The authors agree with the reviewer. The abstract has been re-structured as background, Methods, Results and Conclusion, according to the journal's instructions. Further details, regarding the Framingham Risk Score have been added to the “Method” section of the abstract.

• The first paragraph of the Introduction section is repeating facts for readers, it can be summarized to just one sentence by citing related references.

O.K. the text has been modified accordingly.

• Similarly, the second paragraph of Background section are well-known facts that can be summarized in 1-2 sentences.

O.K. the text has been modified accordingly.

• Although the whole methodology is referred to a previous publication of this study, but more details should be provided about the sampling methods, validation of questionnaires and the laboratory equipment.

O.K. further details with regards to the sampling, questionnaire validation and laboratory equipments have been added to the text, section “Methods”. However, in this context, the authors would like to emphasize that the principal objectives of the previously 2 published articles were to validate externally the rationale, method of recruitment, quality control measures, questionnaires, sample representativeness and response rate to the first nationwide cardiovascular monitoring survey ORISCAV-LUX study, ever carried out in Luxembourg. These two manuscripts were published in 2010 in the same BMC open access Journal to ensure rapid and wide diffusion.
The following statement can be deleted from the Discussion section: "To allow international comparison, the age-standardized MS prevalence according to the JIS-94/80 was estimated to the World Standard Population, showing nearly similar findings (26.6 %) (data not shown)."

O.K. the statement has been deleted from the Discussion section.

The first paragraphs of the Discussion section are a repetition of the Introduction section. The Discussion needs more interpretation and suggestion.

O.K. the first paragraphs of the Discussion section has been deleted. The “Discussion” section has been reworked. The investigators hope deeply that the revised version of the manuscript replies to the referee’s expectation.

Minor comments:
• The English writing should be improved.

The full text has been revised several times to avoid potential orthographic errors and to improve English formatting. The authors hope deeply that the language quality of this version is acceptable.

• The references are cited in different manners throughout the text; in addition to disharmony, the presentation is incorrect in some places, e.g. references 1 to 6 cited separately.

Excuse for this error. Probably, it might be a technical problem related to soft Ward-PDF conversion! However, the two references mistakenly cited have been corrected.

As regards the reference 1 to 6, it is done. The authors hope that the citations are now appropriate.

• The references style is not consistent with the journal instructions.

The instructions of the journal have been checked through and the inconsistency has been redressed. The investigators have already published in the BMC public Health journal without any reference-related problems.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: 'I declare that I have no competing interests'
Reviewer: Marly A Cardoso

Reviewer's report:

The manuscript reports the prevalence (overall, gender- and age-specific rates) of Metabolic Syndrome (MS) in a probabilistic sample of European adults residing in Luxembourg and the agreement between different criteria for MS definitions. The manuscript is well-organized, the methods are appropriated and well described. The limitations of cross-sectional study is clearly addressed in the discussion section. I have the following suggestions in the data analysis and presentation:

- Statistical analysis: considering the cross-sectional design of the present study, the use of Poisson regression models for prevalence rates are recommended.

We thank the reviewer for this relevant comment. Further analyses of odd ratio and 95% confidence interval have been added to the results. We acknowledge that Poisson regression models constitute an attractive approach to the analysis of rate data. The logistic method however is also perfectly valid, well-known, more familiar and widely used in the literature. Moreover it yields odds ratio (OR) values which help materialize the effect of risk factors on the outcome variable under study.

- The results presented in Table 3 should be reported in the text; results from Figures 1 and 2 could be combined in just one Figure for a more concise version of the manuscript.

In fact, the last paragraph of “Results” section explains, in 7 lines, the findings of table 3. These results were again discussed and interpreted in the “Discussion” section, in two paragraphs. More emphasize on inter-definition comparison and the almost perfect agreement found between the definitions has been added to the “Discussion” section of the text.

The suggestion of the reviewer to combine Figure 1 and 2 in one Figure is appreciated and done in the new version.

The investigators hope that this presentation satisfies the referee as well as the editors.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

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