Reviewer’s report

Title: Trends in electrocardiographic abnormalities and risk of cardiovascular mortality in Lithuania, 1986-2015

Version: 0 Date: 24 Oct 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Could an appropriately REVISED version of this work represent a technically sound contribution?

Probably - with minor revisions
GENERAL COMMENTS: GENERAL COMMENTS

* What is your overall impression of the study?

This is an interesting manuscript on trends in electrocardiographic abnormalities and risk of cardiovascular mortality in Lithuania during 1986-2015. This study was based on data from four cross sectional surveys of random samples representing the Lithuanian population aged 40-64 years performed in 1986-1987, 1992-1993, 1999-2002, and 2006-2008 and adds to the literature in this less-studied area of research.

* What the authors’ have done well?

The Introduction, Methods, Results and Discussion Sections of the paper are well-written, succinct and coherent. The authors reviewed the literature well, provided adequate justification for the study and had a clear study objective. The study design and data analysis was clear, and the authors provided enough information for authors who may want to replicate the study findings. The Results section was informative and Tables were well-presented. The Discussion Section was also well-written. Besides, the references and referencing were of high quality, and there were no grammatical errors in the text.

* In what ways does it not meet best practice?

I have identified some minor revisions which will help the authors improve the quality of their manuscript.

REQUESTED REVISIONS:

SPECIFIC COMMENTS
METHODS

"Respondents with clinically diagnosed documented acute myocardial infarction (MI) were excluded from analysis. In total, data of 11,904 individuals (5,427 men and 6,477 women) were analysed."

Comment: Why was only this group excluded? There is a need to define all the Inclusion and Exclusion criteria for the surveys.

"Follow up data of the individuals from Kaunas surveys were used for analysis of associations between ECG abnormalities and CHD or CVD mortality risk (n=6,090). Follow up period started from the health examination date and finished on 31st of December, 2015. The mean duration of follow-up was 12.8±7.79 years (12.5±7.82 years in men and 13.1±7.75 years in women)."

Comment: Please, this should be in the Results Section

ECG

Comment: Were the interpretation of the ECG findings in the survey performed by trained cardiologists? Was there any data quality assessment of the reporting of the ECGs? E.g., concordance in reports by two persons or two cardiologists?

DISCUSSION

Comment: The Limitations of the study is well reported. However, I feel the authors need to highlight the potential limitations of poor response rate. It may be likely that healthier persons may want to decline from participating in the survey?

ADDITIONAL REQUESTS/SUGGESTIONS:

As stated in the commentary above

Note: This reviewer report can be downloaded - see attached pdf file.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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