Reviewer’s report

Title: Association between random glucose and all-cause mortality: Findings from the Mortality Follow-up of the German National Health Interview and Examination Survey 1998

Version: 0 Date: 06 Jul 2018

Reviewer: Richard F Gillum

Reviewer's report:

Random glucose concentration was related to mortality in a German cohort free of known diabetes. Strengths include design. Weaknesses include possible selection bias due to non-response and exclusions, small n of deaths and wide CI in extreme categories, and failure to use software accounting for survey design in regression analyses and seeming overlap with their previous work (ref 12). Given the large body of published work on relationship between HbA1c levels and all-cause mortality with similar findings, the value of this study is unclear. Omit the repeated claims of "first study investigating the association of random glucose and all-cause mortality." The J-shaped association based on only 10 deaths should be omitted/deemphasized and/or a caveat on wide CI added to conclusions.

Intro
Please clarify "There is also ample evidence, that applying currently recommended diagnostic criteria for the diagnosis of previously unknown diabetes or prediabetes using fasting glucose and HbA1c are not identifying the same people (14)."

Methods
Authors state: "Cox regression was performed by PHREG which permitted consideration of weights but not accounting for cluster sampling." Please repeat Cox regression using a package such as Stata, SUDAAN, etc. than does account for survey design to obtain accurate variances.

Results
Major subcategories of mortality (at least CVD, nonCVD, injury) should also be shown.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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.

I recommend additional statistical review

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

Acceptable

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