Reviewer's report

Title: Cardiovascular risk factor treatment targets and renal complications in high risk vascular patients: a cohort study

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Reviewer: Rajiv Chowdhury

Reviewer's report:

This was a prospective cohort study based on participants either living with a pre-existing cardiovascular disease (CVD) or at high risk of developing vascular complications. The investigators set out to determine if recommended treatment targets, as specified in clinical practice guidelines for the management of CVD, reduces the risk of future renal (and renovascular) complications in this populations.

- Major Compulsory Revisions:

1. Apparently the investigators retained people with renal insufficiency and renal artery stenosis at entry. It would be interesting to see (even as a subsidiary analysis) how the associations are if these individuals with baseline renal insufficiency are excluded.

2. The outcomes of interest were self-reported. This should be mentioned in as a limitation of this study. In this regard, it should be more clearly stated how the outcome component ‘Reno-atherosclerotic disease’ was defined given the largely participant-driven nature of outcome collation.

3. Separate analyses should be carried out excluding participants with missing values of some relevant covariates. This information would be helpful particularly for the ones where the proportion of missingness were high such as waist circumference (near 20% missing values) and HbA1c for diabetics (near 40% missing values).

4. Multivariate analyses in Table 3 should include other potentially relevant covariates such as alcohol consumption, smoking status, obesity and indicators for socioeconomic status (if available) for more helpful interpretation of observed (or not observed) associations.

5. How many potential patients who were not fluent in Dutch were excluded? The proportion would be worth mentioning. The risk might be different in this population as non-native speakers are often has limited access to usual clinical care and low adherence to medications.

6. Although the study seems ongoing, current results are based on a median follow up duration of 4.21 years. This should be outlined as a limitation of this (interim) analysis which may have resulted in far fewer cases than what would be
needed to gain adequate precision of estimates, and therefore, more useful epidemiological insights.

- Minor Essential Revisions

7. Given relatively small numbers of participants (and events) in treatment target categories 4 and 5, it may be a good idea to additionally present results based on three broad categories (ie, <=1; 2; and >=3) [Table 3]

Level of interest: An article of importance in its field

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