Reviewer’s report

Title: Prevalence and clinical associations of wheezes and crackles in the general population. The Tromsø Study

Version: 0 Date: 27 May 2019

Reviewer: Cecilie Svanes

Reviewer’s report:

This is an important and interesting analysis, giving evidence as to the usefulness of lung auscultation, a method with advantages in terms of availability, low cost and non-invasiveness, as the authors rightfully state. The topic is thus highly relevant. This is the first analysis of a large population based large sample, and unique in this context. The auscultation sounds were evaluated by a meticulous protocol. The paper is well written, the data well analysed and the results well presented and discussed. The conclusion is supported by the findings.

The study is originally population-based and includes a large sample of a relatively healthy population. A flow-chart of the study population might be useful. Pg 8, line 8 - which 4033 of the 6035 persons with recordings were included for classification of the sounds? PG 9 line 2 - please also state those with recordings from all six sites.

Stat methods: Were the variables dichotomized or not - pg 7 lines 6-9 seems contradictory to lines 15-17. Is the 0.05 significance level too strict for this purpose?

Discussion and conclusion: Would this be different if auscultation was used to support a clinical suspicion of disease? Please discuss this, and if possible - analyse in a different setting or suggest further analyses to the scientific community. I suggest a new paper in which you match with national prescription and death registry data, to investigate whether the presence of sounds are related to subsequent disease/mortality.

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.

Yes
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 am able to assess the statistics

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

Acceptable

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