Author's response to reviews

**Title:** Systematic review of clinical practice guidelines recommendations about primary cardiovascular disease prevention for older adults.

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**Author's response to reviews:** see over
Dr Jesse Jansen  
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June 12, 2015  

Associate Editor  
BMC Family Practice  

Dear Professor Kaduszkiewicz,  

Re: Systematic review of clinical practice guidelines recommendations about primary cardiovascular disease prevention for older adults  

Thank you very much for the opportunity to revise and resubmit our article to BMC Family Practice. We have revised the manuscript to address the constructive comments made by the reviewers and provided a detailed, point-by-point explanation of the changes we have made including:  

- We have included discussion of three recent guidelines: JBS3, NICE CG181 and NHLBI JNC8  
- We have clarified the statements about benefits, harms and knowledge gaps in Table 2.  
- We have added reference to Savarese et al. J Am Coll Cardiol. 2013 Dec 3;62(22):2090-9 in the introduction  
- We have included a completed PRISMA checklist, and updated the abstract to better reflect the requirements of both the journal and the PRISMA guidelines.  

We have highlighted the changes made in the manuscript.  

We believe that the changes we have made in response to the reviews strengthen the paper. We extend our thanks for this constructive feedback and for considering the revised manuscript for publication in BMC Family Practice.  

Sincerely,  

Jesse Jansen, on behalf of all authors
Response to reviews of BMC Family Practice manuscript: 3869162661595835

Received: 7th May 2015: Revise and Resubmit to BMC Family Practice:

**Editors comments:**

1. Abstract:

The Abstract of the manuscript should not exceed 350 words and must be structured into separate sections: Background, the context and purpose of the study; Methods, how the study was performed and statistical tests used; Results, the main findings; Conclusions, brief summary and potential implications. Please minimize the use of abbreviations and do not cite references in the abstract. Trial registration, if your research article reports the results of a controlled health care intervention, please list your trial registry, along with the unique identifying number (e.g. Trial registration: Current Controlled Trials ISRCTN73824458). Please note that there should be no space between the letters and numbers of your trial registration number. We recommend manuscripts that report randomized controlled trials follow the CONSORT extension for abstracts.

RESPONSE: We have updated the abstract to better fulfil the requirements of the PRISMA guidelines, and ensured that it fulfils the structural requirements outlined above.

2. PRISMA guidelines:

In accordance with BioMed Central editorial policies ([http://www.biomedcentral.com/about/editorialpolicies#StandardsofReporting](http://www.biomedcentral.com/about/editorialpolicies#StandardsofReporting)), could you please ensure your manuscript reporting adheres to PRISMA guidelines ([http://www.prisma-statement.org/](http://www.prisma-statement.org/)) for reporting systematic reviews. This is so your methodology can be fully evaluated and utilised. Can you please include a completed PRISMA checklist as an additional file when submitting your revised manuscript. We would also ask that you include a completed copy of the PRISMA flowchart for your study as a figure in your manuscript.

RESPONSE: We have completed the PRISMA checklist, which is attached as an additional file. Our current Figure 1 provides the information required according to the PRISMA flowchart.

**Reviewer's report 1**

**Reviewer:** Michel R Langlois

**Reviewer's report:**
This is a comprehensive and adequate review of guidelines on CVD prevention in the elderly. I have no major comments.

**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.

RESPONSE: We thank the reviewer for acknowledging that the study is comprehensive and adequate and of importance in its field.
Reviewer’s report 2
Reviewer: Bart Ferket

Reviewer’s report:
This is a very comprehensive review of guidelines for cardiovascular disease prevention. The authors should be applauded for the level of detail and the clear writing.

RESPONSE: We thank the reviewer for acknowledging that the study comprehensive and well written; and have addressed specific suggestions as follows:

Major Compulsory Revisions:
1. So far as I can assess all major guidelines are included, although due to the period covered two important UK CVD risk assessment guidelines (JBS3 and NICE CG181) and one US hypertension guideline (NHLBI JNC8) are not included. These guidelines are however very influential and it would be of added value to at least discuss the potential changes they have for elderly in the discussion.

RESPONSE: we agree and now mention these guidelines in the discussion on p19 as follows:

We did not include the recently published JBS3 [47]), NICE CG181 [48] and NHLBI JNC8 CPG [49] in the review as these were published after our last search date (31 December 2013). However, these CPGs appear to have a similar pattern to our main findings, with the exception of NICE CG181. In both the JBS3 and JNC8 guidelines, the discussion of older people is mainly limited to a recommendation to adjust treatment targets and/or thresholds. The JBS8 has added an adjusted treatment threshold for people aged ≥80 years (BP <150/90 mm Hg, or <150/85 mm Hg if ambulatory or home BP monitoring is used). JNC8 now recommends an adjusted treatment threshold and target for people aged ≥60 years (SBP of 150 mmHg or DBP of 90mmHg). Interestingly, the section on hypertension in older people in JNC7 guideline was removed in the JNC8 update. The updated NICE CG181 guideline provides much more extensive discussion of CVD risk management in older people than the previous version (CG67) [39]. In CG67 the main recommendation for older people had been to use clinical judgement to assess risk in people aged 75 or older but that this group could be considered at increased risk of CVD and is likely to benefit from statin treatment. In CG181 the major change is to explicitly recommend using the QRISK2 risk assessment, which has been validated in people up to, and including age 84 years. People aged 85 or older are considered to be at increased risk of CVD because of age alone and the CPG recommends considering statin treatment in this group. However, detail is added to make it explicit that there is limited evidence in older age groups, that the benefit may only be in reduced non-fatal MI and that consideration of risk and benefits and factors such as polypharmacy, comorbidity, frailty and life expectancy and informed patient preference are particularly important. It is also pointed out that there is a need for more research on the effectiveness of statin therapy in older people.

Minor Essential Revisions:
2. For counting benefits and harms the benefits and harms are used as mentioned by the guidelines. In table 2 these are tabulated, but very often I do not see why the statement reported should be a potential benefit or harm.
Response to reviews of BMC Family Practice manuscript: 3869162661595835

RESPONSE: We agree and have clarified the statements that were unclear or ambiguous in Table 2 as described below. These changes have also been highlighted in the manuscript.

The following statements are most unclear:
(a) "Repeated screening not needed for cholesterol" is given as potential harm, that seems to be a benefit to me.

RESPONSE: We agree and have changed the wording of this statement and moved it to benefits column: Repeated screening of cholesterol is less important as lipid levels are less likely to increase after age 65.

(b) "Short term models do not reflect lifetime approach" that would rather apply to younger individuals, in elderly a 10-yr risk model (if competing risk due non-CVD risk is taken into account) would approximate a lifetime horizon.

RESPONSE: We agree and have changed as follows: Most CVD risk models focus on short term risk, and are therefore inevitably more likely to classify older people as at high risk and the young as at low risk and have added: Older people could be considered at high CVD risk based on their age while other risk factors are relatively low.

(c) "Treatment thresholds do not reflect continuum of risk" I do not understand this statement

RESPONSE: This statement is confusing and applies to younger as well as older people, we therefore decided to delete it.

(d) "Use of resources for people less likely to benefit due to short lifespan" I do not understand this one as well

RESPONSE: We agree and have changed as follows: Resources are likely to be concentrated on older people, who may not be able to benefit in their remaining life (time needed to treat to benefit).

(e) "Costs" wouldn't that be beneficial? total costs of treatment are lower probably because elderly have a shorter lifespan?

RESPONSE: We have provided more detail as follows: Costs associated with inappropriate prescribing in older people.

(f) "Ceiling effect to benefit for highest risk groups (incl very old) I do not understand this statement

RESPONSE: We clarified as follows: Pre-existing very high risk might set a ceiling effect to the benefits of treatment; incl. in older patients.

Discretionary Revisions:
3. The authors may refer to Savarese et al. J Am Coll Cardiol. 2013 Dec 3;62(22):2090-9 for discussing the effects of statins in the elderly.

RESPONSE: We thank the reviewer for this suggestion and have now added this reference on line 118, page 7 in the introduction.