Reviewer's report

**Title:** The development of the PROMPT (PRescribing Optimally in Middle-aged People’s Treatments) criteria

**Version:** 2

**Date:** 6 August 2014

**Reviewer:** Sander Borgsteede

**Reviewer's report:**

A valuable contribution - a set of criteria for medication that is not appropriate for middle-aged polypharmacy patients. I have two major comments and some minor comments.

My first comment is that it is not clear for me why a set of criteria specifically for the middle-aged is needed? Why can criteria that can be applied to elderly not be used for middle-aged? Is there currently a problem to judge inappropriate prescribing in middle aged patients? Is this because of epidemiology - many drugs used by the elderly are not used by middle-aged patients?

In this context I am curious what the motivation is to exclude the specific criteria that were included in the published prescribing criteria. Please list all criteria (e.g. in an appendix) and mention the epidemiology (you studied the prevalence of medication use in this population and excluded if less than 0.5% of the population used this drug, line 121-123), and the reason for exclusion.

My second main comment is the literature review. It is not clear how the authors searched for potential published criteria. I have not performed a systematic search myself, but I believe that existing published criteria have not been included. Not all the studies in the review of Patterson were included. Why not? Why have recent Dutch criteria (a.o. Harm-Wrestling, Van Warlé, Drug Saf 2012) not been included? I believe the authors have had good reasons: please make clear how the literature review was performed.

Minor comments:

Line 88-90: 'require adaptation for use in other countries'. What does this mean for the PROMPT criteria. They have been developed by UK specialists, UK prevalence data about medication use (drugs not available in UK were excluded). What does this mean for other countries? Please discuss these implications.

Line 115 'members added further criteria'. Did the members systematically judge what criteria were lacking? What was the motivation to add (only) these criteria? A potential interaction (omeprazole-clopidogrel) was added - but many more interactions could be chosen...

'Delphi panel': I believe all experts are from northern Ireland/UK? analyses: please present data about the level of agreement (statistics are not complicated)
'first questionnaire': please include (a summary) of the comments of the delphi panel, and how the steering group used these comments to change the criteria, and the conclusion for each criterion.

why did the steering group reject some criteria, while others were left for consideration?

'second questionnaire': please include the comments and conclusions for each criterion.

Why did 2 members leave the panel?

Line 189: how can low prevalence be a reason for exclusion? Did you change the cut-off during the study? (see line 121-123)

Discussion, line 205: consensus based guidelines were developed.

Line 205: specifically for use in middle-aged. Are the criteria not available for edlery (or younger polypharmacy patients)?

Line 229: you mention panellist included difficulties because there was no 'knowledge of whether a treatment had been initiated by a specialist', yet 'first line therapy' is included in criterion 'opioid-induced constipation', and 'tricyclic antidepressants'. Please explain.

Line 244: why were panellist presented no reference of the most current guidelines in round 1?

Table 1: was the update of the START STOPP used (I believe the authors have this information)

Table 3, 'bisphosphonates': is the daily dose (also applicable for low doses?)

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'