Reviewer's report

Title: Interventions to improve benzodiazepine prescribing, lessons from the past 20 years to guide future interventions

Version: 2 Date: 16 September 2010

Reviewer: Annette Moxey

Reviewer's report:

The use of benzodiazepines in the elderly is an important area of research and it is therefore appropriate to summarise the available literature on interventions that aim to improve prescribing.

However, my preference is to see this paper written as a proper systematic review. I believe this can be achieved with minimal effort as most of the work has already been done (e.g. search strategy, exclusion criteria and flowchart have been provided). This will improve the appeal of the manuscript to readers and provide a more substantial evidence-based answer to the question "improving the use of benzodiazepines - is it possible?"

I agree with the authors that it is not possible to conduct a meta-analysis in this instance but I believe that a good quality systematic review with narrative synthesis of data is feasible.

I therefore recommend the following major compulsory revisions and clarifications:

INTRO
- Needs more information to support the need for a systematic review in this area e.g. intro should include information on the potentially harmful effects of benzodiazepines.
- Why has a 20-year timeframe been selected?

METHODS
- Search strategy: Although the relevant databases have been searched, I suggest using additional more specific terms such as "audit and feedback" and "decision support systems". Were other sources used to identify grey literature?
- Inclusion criteria: Did articles need to directly specify that the study was undertaken in an elderly population? Were there any inclusion criteria around study design? e.g. RCTs, non-RCTs? This information should be provided.
- Quality assessment of included articles should be performed.
- Need to indicate that 2 people reviewed included articles (e.g. quality assessment, data extraction).
- pg 6, "risk of bias" paragraph belongs in the discussion as it is talking about the
strengths and limitations of the review.

RESULTS
- pg 6, sentence on data extraction belongs in the methods section.
- I would appreciate an overall summary of the types of articles collected (e.g. number of articles from each country, different study designs used) as well as information on the quality of the studies included.
- Summary of results/narrative synthesis should be provided in the results section (most of this information is currently in the discussion).
- Tables 1-3 need to include a column for study design.

DISCUSSION
- Information relating individual study findings should appear in the results section.
- Discussion section should be dedicated to interpreting study findings, possible explanations, real world implications, directions for future research, and strengths and limitations of the review.
- pg 8 Towle and Adams 2006 reference needs to be numbered and included in the reference list.

REFERENCE LIST
- references 42 to 56 are missing. I also think that more authors need to be included in each reference (some only have one followed by et al - does this reflect the journal's guidelines?)

I would like to see (either in the intro or discussion) acknowledgement of existing systematic reviews that have been undertaken in relation to decision support and other interventions for prescribing. e.g. there are a number of reviews authored by Sallie-Anne Pearson, Jeremy Grimshaw, Martin Eccles and others. For instance, it may be appropriate to state in the intro that although a number of systematic reviews have been undertaken, none have focused specifically on issues and interventions surrounding benzodiazepine use in the elderly.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.