Reviewer’s report

Title: Managing Diagnostic Uncertainty in Primary Care: a systematic critical review

Version: 0 Date: 21 Jan 2017

Reviewer: Susan Smith

Reviewer’s report:

Thank you for asking me to review this interesting paper on managing diagnostic uncertainty in primary care settings. It is an important topic and I think the paper does add value to the literature but I think needs major revisions as follows:

* The title states that the study design is a narrative review and the authors state that they used the PRISMA reporting guidelines as would be expected. There is some confusion around review definitions but a narrative review is not clear. I presumed it was a standard systematic review given the use of PRISMA but that as there was no meta-analysis the authors were using the term narrative. However, the included study designs and the aim to scope the literature and present all evidence and the inclusion of qualitative studies suggests this is not a standard systematic review. There is no attempt to use the methods ore reporting guidelines recommended for qualitative synthesis and no mention of mixed methods. This needs to be clearer in the title and abstract. Perhaps calling it a scoping review would be more accurate.

* I was surprised at how few studies there were given the broad inclusion around study design. One of my concerns is the difficulty isolating diagnostic uncertainty from other aspects of uncertainty and there is far more literature on uncertainty generally and error and some of the evidence on diagnostic uncertainty is contained within that literature. This is mentioned in the discussion but should also be discussed as a limitation.

* The small number of studies may relate to quite a tight search strategy - why were versions of the word 'diagnosis' not included as search terms?

* There is no section on risk of bias as would be expected in a systematic review

* The mixed study designs leads to difficulty interpreting the results. Interpretations are made in the results that are frequently quite firm but then turn out to be based on cross sectional survey results - often with small numbers and potentially low response rates. These are placed alongside analyses of qualitative studies. This needs to be more clearly reported in the results.

* The Table of included studies would benefit from being organized by study type to add clarity

* Response rates for surveys should also be reported in this Table
The results relating to experience are very important but appear in two of the themes - both emotional management and ethical management. I think experience could be teased out more - Prof James McCormack defined experience as making the same mistakes with increasing confidence. On the other hand lack of experience may be related to lack of confidence and need for more supports. Also related to burnout - would be interesting to consider differences in response between inexperienced and experienced clinicians as one of the studies (interesting with results on burnout) included GPs in training in Australia

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**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.

No

**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.

Not relevant to this manuscript

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

Acceptable

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