Reviewer's report

Title: A Systematic Review of the Implementation and Impact of Asthma Protocols

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Reviewer: Tim Holt

Reviewer's report:

This paper gives a very broad review of literature concerning the impact of asthma guidelines in clinical practice. The capture is so inclusive and the studies identified of such variable quality that it is difficult to know whether any firm conclusions can be drawn, particularly as there is likely to be significant publication bias in favour of beneficial results (as the authors acknowledge). Nevertheless the review itself has been conducted rigorously and reported clearly (apart from the issues below).

Major Compulsory Revisions

1. The Characteristics of clinical guidelines subsection in the Background (paper-based, computer-generated, computerized) is important but is written in the past tense and so sounds like Results. I think it should simply be rephrased as 'We defined reminders as follows:' or 'Reminders are defined as follows:'

2. The authors refer to '15 non-blinded' trials but as they state later, it isn't clear how such a trial could be blinded - this needs clarifying.

3. There is also a statement that '48 studies were educational interventions' but educational interventions are named as an exclusion criterion - this should be clarified.

4. As a reviewer from the UK, where health record systems (certainly in primary care) are now usually paperless or paper-light, I think it would be useful to give an indication of which country (or region) the studies were based in. This could be added either as a new paragraph in Results or as a small Table.

Discretionary Revisions

Given concerns mentioned above over the tendency to emphasise favourable outcomes I think it would be useful to comment on the reporting of actual risks to safety, as this is a currently topical issue with an interesting paper published last year in this same journal (Carling et al. Risks to patient safety associated with implementation of electronic applications for medication management in ambulatory care - a systematic review. BMC Medical Informatics and Decision Making 2013, 13:133.). It might be acknowledged that such systems have the potential for adverse outcomes eg detriment to processes of care, workflow and/or decision making but these are rarely reported. I expect the literature identified here will corroborate this finding.
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