Reviewer’s report

Title: Difficult-to-treat and severe asthma in general practice: delivery and evaluation of an educational program

Version: 0 Date: 19 Mar 2019

Reviewer: Thomas Janssens

Reviewer's report:

In the paper, the authors report on the process of development and evaluation of an educational intervention for primary care physicians on the topic of difficult-to-treat and severe asthma. As this distinction has important implications for clinical practice, education about this topic has the potential to have an important impact on asthma care.

Nevertheless, I have a small set of comments that I would like the authors to address.

Background

1. The authors indicate that 60% of costs associated with asthma stem from patients with severe asthma. This number comes from the Israel et al. (2017) paper on severe and difficult to treat asthma, which is based on algorithmical classification based on pharmacy data (Sadatsafavi et al. 2010). It is however not clear to me if the algorithm that was used in this latter paper can distinguish between severe asthma and difficult to treat asthma. As the current manuscript makes the case of educating physicians on differences between severe asthma within the greater group of difficult to treat asthma, it would make sense to either remove this reference, or further qualify its use.

Methods

2. More details are needed about the way feedback from academic detailers was collected (e.g. systematic, written feedback, oral (audiotaped debriefings) and analysed (method for qualitative analysis, identification of key themes,…)).

Discussion/limitations

3. The limitations of data collection and design go further than the reliance on self reported instead of behavioral outcomes. Despite being widely used in educational interventions, retrospective post test designs have major issues in terms of lack of control group and the
introduction of bias when asking about baseline attitudes only at posttest. I would therefore like the authors to include further discussion of the limitations of single group retrospective post test designs.

**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.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**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.

I am able to assess the statistics

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

Acceptable

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