Author’s response to reviews

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

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Author’s response to reviews:

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The Editor,
BMC Family Practice
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Dear Dr Van Royen,

Re Manuscript FAMP-D-19-00076 Difficult-to-treat and severe asthma in general practice: delivery and evaluation of an educational program
Thank you for the opportunity to provide responses to the comments by the reviewers and provide an amended manuscript.

Following is a point-by-point response to each of the comments and an indication of where changes have been inserted into the clean document.

On behalf of the authors, thank you for your consideration.

Yours sincerely,

Isla Hains,
First author

Editor:

1. Please give also more details on the education program design (duration of academic detailing session, exact content, ..) in order to be interesting enough for the readers of your paper

Further details of the education program have been described including length of education session, content for discussion and linkage with Table 1 which describes the program’s key messages — see lines 139 to 142 on page 6 and lines 148-150 on page 7.

Please note we have also made available the GP handout which is used to support and complement the discussion between GP and facilitator (Additional file 1). This provides a framework for the education session and contains all the main details of the program.

Reviewer 1 (Thomas Janssens):

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.

Thank you for this comment. The economic analysis by Sadatsafavi et al used a model developed and validated by Firoozi et al, Development and validation of database indexes of asthma severity and control. Thorax. 2007;62:581-7. However, we agree with you that the key features which distinguish difficult-to-treat from severe asthma (e.g. identification and treatment of comorbidities and of problems with inhaler technique and adherence), which are the focus of this manuscript, cannot be identified from this model. The figure of 60% is therefore likely to represent both difficult-to-treat and severe asthma. We have therefore edited the sentence on page 4 (lines 80 to 83) to delete this statement. Reference #7 remains, as it summarises other statements in the same sentence.

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,…).

Thank you for this comment. We have now removed the information in the manuscript related to the feedback from the academic detailers as it was informal feedback only.

3. The limitations of data collection and design go further than the reliance on self reported instead of behavioural 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 post test. I would therefore like the authors to include further discussion of the limitations of single group retrospective post test designs.

We agree with this comment about the limitations of the RPT design. We have added further information about the limitations into the Discussion section on page 15, lines 303-308.

Reviewer 2 (Erika Baum):

1. I am missing further data: How many practices and GPs have been contacted or informed about the possibility to participate in this programme? So: what about the proportion of those taking part in educational outreach
Appointments to take part in the educational program were made by a variety of methods including bulk fax promotion, conversations with practice managers in general practices who have taken part in previous programs, and an educational visitor scheduling a future appointment at the time of completing an earlier program. Due to this heterogeneity in appointment generation, it is not possible to determine proportion of those who participate to those who are invited.

2. Is there a difference in the answers of those who filled in the questionnaire immediately after the session in comparison to the others (sensitivity analysis)

We did compare the responses for each question between the 43 GPs who completed the original online survey (administered 3 weeks after the visit) and the 183 GPs who received a paper version directly after the visit, despite the small sample size for the original sample. For the majority of responses to the survey statements there were no differences between the 2 groups ie if a significant difference was observed for a survey statement before and after participating in the program, this difference was observed for both groups and vice versa. We concluded that this led to consistent conclusions across both groups.

The following statement has been added to page 8, lines 188-190, of the manuscript to indicate that these comparisons were done:

“We also compared the survey data for the GPs who received the online survey three weeks after the educational visit and those GPs who received the paper survey directly after the educational visit. Most responses were consistent between both groups.”

3. Can you give us informations about responders in relation to non responders (Age? Gender distribution?)

We do not have information about non-responders as demographics were not collected from any of the GPs who participated in the educational program. The survey itself is also anonymous so we do not know what participants that took part in the educational program then completed the survey.

4. This study is not on a high level of evidence and conclusions about possible benefits are very limited. We even do not know whether the main purpose was to increase use of new drugs since study was financed by producers of these drugs.

Funding for this project was provided by two pharmaceutical companies, however design, development and implementation of this project was conducted with complete independence
from these funders (please see the ‘Funders’ section on page 17 of the manuscript). The purpose of this educational program was not to increase the use of new drugs. As highlighted in the introduction and the methods, the educational program was to provide education to GPs on the systematic guidelines-based management of patients with difficult-to-treat and severe asthma. The objectives were to:

1. Increase GP knowledge about difficult-to-treat asthma and its subtypes
2. Increase the proportion of GPs who can identify patients with poorly controlled asthma
3. Increase the proportion of GPs who can identify severe asthma cases within the broader difficult-to-treat asthma group
4. Increase awareness of benefits of referral to respiratory specialists for patients with severe, high risk or difficult-to-treat asthma