Reviewer's report

Title: An economic evaluation of nurse led versus lay educators support for those with asthma in primary care

Version: 1 Date: 21 December 2011

Reviewer: Manuela Joore

Reviewer's report:

This paper presents an economic study of involving lay educators as opposed to practice nurses in asthma care. Involving laypersons in health care is generally assumed to be cheaper. To my knowledge, this study is one of few, if not the only, studies to explicitly calculate the difference between involving lay persons and health professionals.

My comments are mostly points for clarification.

Major compulsory revisions

Abstract
The type of economic study is not specified in the abstract, nor in the paper. Is this a cost / cost minimization / cost consequence analysis? It would be more clear to the readers if the authors state specifically which type(s) of economic analyses they performed.

In the sentence 'Assigning a cost to this measure...' It was not clear to me which measure the authors refer to.

Methods
The data underlying this work is from 2004/5. This is some time ago. Could you please justify whether these data are still useful to investigate the costs of involving lay educators in asthma care today.

It is unclear to me how the costs of the training were calculated. For instance: 19 lay educators were recruited, 15 were trained and 8 actively participated in the trial. How were the costs per patient calculated? Also, 45 nurses were trained, why was this a larger group? Is this to be expected to be the case in real life also? As I understand correctly, the costs of wages of the nurses/hourly compensation for the laypersons for the training hours were not included in the analyses: what is the justification for this? What were the costs for the different components of the training of the laypersons, and how was this calculated? Why were accommodation costs not included, while the lay educators had residential training? Why were costs of asthma medication not included? Could inclusion of these costs have altered the results?

Please state clearly which type(s) of economic evaluation was/were used (the primary outcome was also costed; why is this not labeled a cost minimization
Please justify the use of independent sample t tests. Was data normally distributed? If not why was bootstrapping not considered?

Results
Compliance to the intervention was rather low in both groups, although slightly higher in the lay educators group. Taking into account the compliance rate; were these interventions expected to be effective at all? The authors might wish to add some discussion on this matter in the discussion session.

The unit cost of an hourly rate for a lay educator is first stated in the Result section. Please mention this in the methods. Also, what is the source/justification of this amount? Especially as a large number of lay educators apparently did not claim (were these costs included anyway?), I would like to ask the authors to perform a sensitivity analysis on this input.

Discussion
1st paragraph. Of course the hourly rate of the lay educator is substantially lower than the hourly wage of a practice nurse, however, the costs of intervention delivery were roughly the same. Please make sure this is clearly stated in the conclusion.

Please discuss the generalisability of findings to other jurisdictions than the UK

Minor essential revisions
Please use a similar amount of decimals in all numbers quoted in the paper.

Paragraph on effectiveness outcome: pound 160.66 and pound 134.78 seem to be in wrong order.

Table 3
Do I understand correctly, these are not costs but number of contacts/events? Please change wording in the table accordingly.

Table 4
Please include unit costs, number of hospital and ICU days to provide greater clarity.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests