Author's response to reviews

Title: Incentive payments to general practitioners aimed at increasing opportunistic testing of young women for chlamydia: a pilot cluster randomised controlled trial

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Author's response to reviews: see over
Dear Editors

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MS TITLE: Incentive payments to general practitioners aimed at increasing opportunistic testing of young women for chlamydia: a pilot cluster randomised controlled trial

Thank you for the opportunity to respond to the reviewer’s comments. Please find below our responses to each of the reviewers comments. A revised manuscript and a tracked copy have been submitted.

Reviewer 1:
Major Compulsory Revisions

Comment
The 6 month trial period was compared to a 12 month pre-trial period. Why to use two periods with different duration? Is it possible to analyse the date using two six month periods in the same part of the year? Are the results similar to the results in the submitted article?

Response
We were unable to compare the 6 month trial data with the same 6 month time period in the preceding year due to problems with collecting the data and were unable to have a longer trial period (i.e. 12 months) due to logistical and economic limitations on the study. We understand this is an issue because it does not take into account the seasonal changes in testing. We have now noted this in our limitations.

The following sentence has been added to the limitations p.16:

“The comparison of different pre-trial (12 months) and trial (6 months) time periods may not have allowed for seasonal changes in patient load and possible changes in testing frequency”.

Comment
The discussion describes that one particular GP influenced the global results of the intervention group in a relevant way: he or she counted for 44% of all chlamydia tests in the pre-trial period and 23% in the trial period.

It seems reasonable that GP characteristics, or personal (changing?) attitudes will influence the outcome. Can you analyse the data on the level of each participating GP? For example with a new outcome parameter: the difference
between the number of chlamydia tests in the pre-trial period and the trial period.

**Response**

All analyses were adjusted for clustering at the level of each GP. Analysing the difference between the number of chlamydia tests pre and post trial as suggested by this reviewer would reduce the robustness of the analysis because it wouldn’t included all the obtained data (numerator and denominator for each time period). For this reason we have chosen not to do this analysis.

**Comment**

Is there a figure available of the number of tests during the whole study period, on the level of each GP? What does it shows?

**Response**

The total number of tests undertaken during the study period is now available in Table 2. The median and range of tests in the pre trial and trial periods in both groups is now reported in the results on pages 13 &14:

“The median number of women tested in the control group in the pre-trial period was 6 (range: 0-29) and in the intervention group 8.5 (range 0-133)”.

“The median number of women tested in the control group in the trial period was 5 (range: 0-32) and in the intervention group 8 (range: 0-49)”.

**Comment**

A positive test result can stimulate GP’s to continue, or enhance screening for new chlamydia cases. Is this effect measured in this study? Was their a difference in positive chlamydia tests between the two groups? Was their a difference in positive chlamydia tests between the participating GP’s? In the pre-trial period? In the trial period?

**Response**

The effect a positive test result could make on GPs screening practices was not examined as part of the RCT.

There was a non-significant change in positivity in the control group in the pre-trial and trial period and a significant decrease in positivity in the intervention group in the two time periods, suggesting that a higher number of low-risk women were tested in intervention group in the trial period.

The following sentence has been added to the methods section (p.11):

“The chlamydia positivity was also calculated and defined as the proportion of patients tested with at least one positive test”.
The following sentence has been added to the results section (p.14):

“The proportion of women who tested positive for chlamydia did not change in the control group but decreased in the intervention group (p=0.01) during the two time periods (Table 2).”

The positivity rates are now shown in Table 2 (tables renumbered).

**Minor Essential Revisions**

**Comment**
The screening intensity is described in the percentage of chlamydia tests in the women of the target group. Is it possible to give the absolute numbers as well?

**Response**
These numbers are now shown in Table 2.

**Discretionary Revisions**

**Comment**
a) Do I understand it correctly that every practice in the control group and the intervention group received $1000 AUD; and that in addition each GP in the intervention group yielded $5 AUD for each chlamydia test performed in the target group. b) Do you know how the yielded money was divided in the different practices? A personal yield for each GP? Equally divided among all GP's of the practice? Another system of distribution of the money?

**Response**
a) The reviewer has surmised correctly. Every practice received AUD$1000 for their participation in the trial. In addition, each GP in the intervention group received AUD$5 for every chlamydia test undertaken with women aged 16-24 years during the trial period.

b) We do not know how the AUD$1000 practice payment was utilised by the participating practices i.e. whether GPs received any of the payment. This was at each practice’s discretion.
**Reviewer 2:**
Minor Essential Revisions.

**Comment**
Financial incentives aimed at providers and/or patients are a contentious issue within Ct screening. I have attached the url to a poster on this subject that was presented at the 2009 Annual NCSP Conference in England (http://www.chlamydiasecreening.nhs.uk/ps/assets/pdfs/events/conference09/Final%20Darko%). It would be useful to refer to this wider evidence base within the Background and Discussion sections.

**Response**
Thank you. This was a good suggestion and we appreciated the reference. The suggested paper however focuses on patient incentives rather than professional incentives.

**Comment**
In the Background the authors should clarify the purpose of Ct screening: is it aimed at all people <25 or women only? The way the text is written it is hard to distinguish the intended target population. Given the well know problems of engaging men in sexual health, it is important to be more clear on this point.

**Response**
At the time this project was undertaken the Australian RACGP guidelines for chlamydia screening recommended screening for women 25 years and under only. Since this time, a new edition has been published which now recommend screening of all sexually active people aged 25 years and under.


**Comment**
The authors need to be more clear about whether the increased testing was successful in targetting sexually active young people who constitute the Ct target group, or whether the incentive just picked the 'lowest hanging fruit'. To this end the authors should include an assessment of change in detected Ct positivity as part of the analysis.

**Response**
As per our response to Reviewer 1, the detected Ct positivity has now been outlined in Table 2.
The following sentence has been inserted in p.17 in discussion of the change in detected Ct positivity:

“The significant decrease in positive chlamydia diagnosis in the intervention group is likely to be as a result of GPs testing higher numbers of low risk or asymptomatic women”.

If you have any further comments or queries on the manuscript please do not hesitate to contact me.

Yours sincerely

Jade Bilardi on behalf of all authors