Reviewer’s report

Title: The Viral Prescription Pad - A Mixed Methods Study to Determine the Need for and Utility of an Educational Tool for Antimicrobial Stewardship in Primary Health Care

Version: 0 Date: 08 Nov 2019

Reviewer: Donna Lecky

Reviewer's report:

Dear authors

Thank you for presenting this interesting article for publication. Antimicrobial stewardship is vital for preserving antibiotics for future generations and it is heartening to see this work being carried out. That being said I have a few comments that I feel need to be addressed before this manuscript is suitable for publication. Specific comments I have listed below.

In general

1. Although the pad makes it very clear not to prescribe antibiotics for viral infections. I find the name 'viral prescription pad' quite misleading when discussing AMS; the title may inadvertently suggest the promotion of antibiotic prescribing for viruses rather than prescribing with caution. I would highly recommend changing the title of the pad as it may unintentionally give out the wrong message to the general public. That being said, this is the title you used when doing the work therefore I don't think you should change it for publication of this manuscript.

2. Were any patient representatives used during any part of the study?

3. It has not been reported that any behavioural science was used in the development of the viral prescription pad, in either the development of the interview schedule or the viral prescription pad itself. This should at the very least be mentioned as a limitation of the study.

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Line 28 - 45: How many health care professionals were sent the invite via each method i.e. email and fax? You have added the response rate in the results however its important to put the invite number in the methods section. Have you discussed the differences between the two uptake methods in the discussion?

Line 28 - 45: I appreciate that the manuscript is presenting findings from a small section of a larger ASP study however the presentation of this in your methodology has left me quite confused. You may want to add a line at the end of this paragraph stating that as this manuscript is only covering the development and implementation of the viral prescription pad only findings from X and Y groups are will be discussed from this point forward.
The manuscript states that the link was sent to community pharmacists and dentists, and this data has been included in your findings. Do these groups prescribe antibiotics for RTIs in Canada? If not then please explain why they have been included. If yes, then please include this information for the international reader.

Line 42: I suggest removing the sentence relating to veterinarians as this requires more explanation as to why they were included in the study at all and this is outside the remit of this manuscript.

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Line 7 - 22: How many pads were distributed and do you have any record of uptake and use reported in the results section?

Line 28: Please explain how the family physicians were selected to be interviewed for example did you approach high prescribing practices, were they randomly or purposefully selected from those who were given the pads, etc.

Line 33: Why 12 - 18 months later? This seems like quite a long time for an intervention to be in place before checking if it is used or of benefit? Was it to check before and after prescribing data for the same time seasonal time frame? If so, please state.

Line 38 - 40: How was the interview guide developed? For example, was a behavioural science framework used, were other similar interview schedules reviewed to provide a basis or was it developed by experts in the field who had experience in developing interview guides? What steps were taken to overcome question bias?

Line 42: Please state if MJ is an experienced qualitative researcher or if they have been trained to carry out qualitative interviews.

Line 50: Is the research intern a named author or at least acknowledged by name on the manuscript?

Page 9:

Lines 9 - 14: I find that this line slightly misleading; no information has been provided on the selected sample i.e. were they representative of this provider group as a whole. It has also not been made clear yet how many providers actually saw and or used the pad. Please include this information if you have it. A suggestion may be to change this sentence to …how the viral prescription pads were being used in practice,…

Lines 38 - 43: It states that the survey was shared via social media, please state how and to what groups, etc. Was it a paid advert, etc?

Line 40 - 43: Please indicate the value of the gift card.

Line 54: Was the survey piloted with the general public prior to full roll out to ensure understanding of the questions? If not, how was understanding of the questionnaire ascertained prior to roll out.

Page 11
Line 14: the model of reimbursement should be in the methods as the incentive for taking part

Page 17
Lines 14 - 35: A lot of this information should be in the methodology or introduction, not the discussion, as it is either providing background information as to why you developed the viral pad or explain the reasoning behind the study methodology.

Page 18
Line 23 - 49: This is an extremely complex area which requires further discussion. The approach taken here is looking solely at what medium has been used to provide information to patients which may be dependent on numerous factors, for example the general health and well being of the patient, type and severity of illness, GP language (See doi: 10.1370/afm.1892Ann Fam Med March/April 2016 vol. 14 no. 2 141-147), etc. As you are discussing education I suggest adding a sentence or two on preferred learning styles in general. Also I feel that it is well documented that verbal communication alone is not enough to help educate the general public, and that verbal and written communication is required. See next comment.

Line 37 - 38: Reference 17 is on a systematic review with one of the main conclusions being that More accessible education, including simple information leaflets, is required. Not that some studies found verbal information superior for their outcomes. Please reference the papers that may have found this directly.

Line 37 - 38: Reference 23 references a paper for older women and not the general public therefore should not be used in a general statement such as this

Lines 42 - 45: "Unfortunately, among all of this research there is a lack of evidence for patients in the PHC setting, particularly for those suffering from an acute URTI." There has actually been quite a lot of work carried out into how to communicating with patients around RTI. Please do a thorough literature search on the topic, just a few examples are:

doi: 10.1370/afm.1892Ann Fam Med March/April 2016 vol. 14 no. 2 141-147
https://www.nursinginpractice.com/patient-information-can-improve-appropriate-antibiotic-prescribing

Line 52 - 57: Did the interviewer probe reasons why?

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Line 57: Other work has been carried out with antibiotic prescription pads, this includes work carried out in the UK in 2015 by Bunting and Hawking (https://www.nursinginpractice.com/patient-information-can-improve-appropriate-antibiotic-prescribing) looking at the TARGET antibiotics Treating you infection Respiratory Tract infection patient information leaflet. Please refer to this research.

A systematic review has also been carried out looking at Patient information leaflets to reduce antibiotic use and reconsultation rates in general practice. BMJ Open. 2015; 5(6): e007612. doi: 10.1136/bmjopen-2015-007612
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.

Yes

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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