

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	How effective and cost-effective are behaviour change interventions in improving the prescription and use of antibiotics in low and middle-income countries? A protocol for a systematic review
AUTHORS	Batura, Neha; Cuevas, Carla; Khan, Mishal; Wiseman, Virginia

VERSION 1 – REVIEW

REVIEWER	Yoel Lubell Mahidol Oxford Tropical Medicine Research Unit, Thailand
REVIEW RETURNED	23-Jan-2018

GENERAL COMMENTS	<p>The manuscript describes a protocol for a systematic review of behavioural change interventions targeting antibiotic prescription and use in low and middle income countries. The topic is of much importance and high interest, with action most urgently needed in LMICs where antibiotic prescription and consumption practices are often most poorly regulated, and available evidence from LMICs should indeed be better summarised to identify effective and cost-effective interventions that could be implemented at scale.</p> <p>I have no major reservations about the protocol, although I do wonder how much added value the review will have as compared with existing reviews the authors cite, as although they didn't focus exclusively on LMICs/BC/CEA, they are likely to have captured the relevant studies. I can see the value of a review focuses exclusively on these if the study numbers and consistency allow for a meaningful meta-analysis, but with some familiarity of the topic I anticipate that the low number of studies and the heterogeneity in interventions and settings will at best lend itself to a narrative review. Hopefully I'll be proved wrong.</p> <p>Minor comments/edits: P3 under 'Strengths' – need to add 'is the first' before 'that focuses'. P5 par1 – I would replace 'have also been detected' with 'are prevalent'. P8 par1 – missing a space before 'CC will extract...'</p>
-------------------------	--

REVIEWER	qalab abbas Aga Khan University, Karachi; Pakistan
REVIEW RETURNED	29-Jan-2018

GENERAL COMMENTS	Its a very interesting protocol to look for the effectiveness and cost effectiveness of interventions to improve the prescription of antibiotics use in LMIC. While the topic is very relevant and important there are certain things unclear about the methodology.
-------------------------	--

	<p>1- Authors mention that screening will be done by one person. It is always recommended that two people do the screening for literature search to avoid missing anything.</p> <p>2- Authors have mentioned that they will have a flow diagram of the study. It will be good and more clear for the readers to present a dummy flow diagram in protocol.</p> <p>3- Objectives of the study should be rewritten with more clarity.</p> <p>4- Outcome of the study also need more clarification and need to be rewritten.</p>
--	--

VERSION 1 – AUTHOR RESPONSE

Authors’ response to the reviewers

Reviewer: 1

The manuscript describes a protocol for a systematic review of behavioural change interventions targeting antibiotic prescription and use in low and middle income countries. The topic is of much importance and high interest, with action most urgently needed in LMICs where antibiotic prescription and consumption practices are often most poorly regulated, and available evidence from LMICs should indeed be better summarised to identify effective and cost-effective interventions that could be implemented at scale.

I have no major reservations about the protocol, although I do wonder how much added value the review will have as compared with existing reviews the authors cite, as although they didn’t focus exclusively on LMICs/BC/CEA, they are likely to have captured the relevant studies. I can see the value of a review focuses exclusively on these if the study numbers and consistency allow for a meaningful meta-analysis, but with some familiarity of the topic I anticipate that the low number of studies and the heterogeneity in interventions and settings will at best lend itself to a narrative review. Hopefully I’ll be proved wrong.

Thank you for your feedback. Our initial search and screening strategy has identified over 30 studies evaluating behaviour change interventions implemented in LMICs. Prior to full-text review, we cannot pre-empt the extent of degree of heterogeneity in the outcomes, and intervention settings but do anticipate the conduct of a narrative synthesis. A narrative review and synthesis is valuable as it will allow us to bring together evidence in a way that identifies the strengths and limitations of the existing evidence base, and where key gaps lie. This is essential for bridging the gap between research, policy and practice. We will conduct the narrative synthesis in accordance with the guidelines provided by the ESRC Methods Programme (Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., ... & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. A product from the ESRC methods programme Version, 1, b92.)

Minor comments/edits:

P2 under ‘Strengths’ – need to add ‘is the first’ before ‘that focuses’.

Thank you, this been included (Page 2).

P4 par1 – I would replace ‘have also been detected’ with ‘are prevalent’.

Thank you, this has now revised on Page 4, last line of paragraph 1.

P8 par1 – missing a space before ‘CC will extract...’

Thank you, this has now revised on Page 8, paragraph 1.

Reviewer: 2

Its a very interesting protocol to look for the effectiveness and cost effectiveness of interventions to improve the prescription of antibiotics use in LMIC. While the topic is very relevant and important there are certain things unclear about the methodology.

1- Authors mention that screening will be done by one person. It is always recommended that two people do the screening for literature search to avoid missing anything.

Thank you for this suggestion. Please see pages 7 and 8 for the revised search and screening strategy.

2- Authors have mentioned that they will have a flow diagram of the study. It will be good and more clear for the readers to present a dummy flow diagram in protocol.

Thank you for this suggestion. A dummy flow diagram (Figure 2) adhering to PRISMA guidelines has now been included.

3- Objectives of the study should be rewritten with more clarity.

The objectives of the study have been revised for clarity on Page 5.

4- Outcome of the study also need more clarification and need to be rewritten.

The text summarising outcome of the review has been revised for clarity in the discussion section on Page 9.

VERSION 2 – REVIEW

REVIEWER	qalab abbas Aga Khan University, Karachi; Pakistan
REVIEW RETURNED	11-Mar-2018

GENERAL COMMENTS	The authors has improved the manuscript as per comments.
REVIEWER	Yoel Lubell University of Oxford UK
REVIEW RETURNED	12-Mar-2018
GENERAL COMMENTS	All previous comments have been addressed.

VERSION 2 – AUTHOR RESPONSE

Dear Dr Clark,

Thank you for your comments on the paper, and the opportunity to revise. The editor comments have been addressed as follows:

- We have ensured that the protocol is formatted according to the Instructions for Authors: The manuscript contains the 'Ethics and dissemination' section in the main text well as the study dates on page 9.
- We have revised the 'Strengths and limitations' section of the manuscript on pages 2 and 3. These now relate specifically to the methods of the study.

Best wishes,

Dr Neha Batura, on behalf of the study team