

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)	Impact of Home Telemonitoring and Management Support on Blood Pressure Control in Non-dialysis CKD: A Systematic Review Protocol.
AUTHORS	Okpechi, Ikechi G; Muneer, Shezel; Tinwala, Mohammed; Zaidi, Deenaz; Hamonic, Laura; Braam, Branko; Jindal, Kailash; Klarenbach, Scott; Padwal, Raj S; Shojai, Soroush; Thompson, Stephanie; Bello, A

VERSION 1 – REVIEW

REVIEWER	Wu, Yifan the Second Affiliated Hospital of Guangzhou University of Chinese Medicine (Guangdong Provincial Hospital of Chinese Medicine), Renal Division
REVIEW RETURNED	14-Sep-2020

GENERAL COMMENTS	<p>Thanks for providing me with the opportunity to review this manuscript entitled Impact of Home Telemonitoring and Management Support on Blood Pressure Control in Non-dialysis CKD: A Systematic Review Protocol. This is an interesting paper, based upon the need for filling an important knowledge gap. I however have a few concerns to mention as below.</p> <ol style="list-style-type: none">1. The protocol describes that studies regarding HBPT with/without management support will be included. I am not quite sure about the definition of the management support, for example, will HBPT simultaneously integrating other chronic disease management interventions(exercise training, nutritional therapy, etc.) also be eligible in this systematic review?2. To avoid abundance, I suggest that item 1 of the inclusion criteria and item 2 of the exclusion criteria can be combined.3. HBPT involves a long-term process and largely relies on the duration of intervention/follow-up that may therefore be crucial to the outcomes. Attempts to clarify the reason or add relevant references to choose 6 months as cut-off study duration in the subgroup analysis section can be informative.
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REVIEWER	Verberk, Willem University of Maastricht, Cardiovascular Research Institute Maastricht (CARIM)
REVIEW RETURNED	28-Sep-2020

GENERAL COMMENTS	The authors have written a protocol for a systematic literature review / meta-analysis to be done to investigate the impact of home
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	<p>telemonitoring on BP control in CKD patients.</p> <p>The protocol is very well written and easy to read. Also the approach is well-structured using appropriate methods.</p> <p>Personally, I have some doubts if this protocol is of enough interest for the reader of BMJ open. I also think the study would be more interesting if the authors would consider an individual patient data meta-analysis, i.e. contacting the authors of the papers selected to share their data.</p> <p>Although, it may be true that the impact of HTMBP has not been investigated sufficiently among CKD patients. HTMBP in general has been investigated widely and also systematic reviews to this have been done. This makes that, although I think the topic is definitely interesting and deserves to be investigated in a systematic review, I wonder if the study protocol is of enough interest</p>
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REVIEWER	de Witte, Luc University of Sheffield , Centre for Assistive Technology and Connected Healthcare (CATCH)
REVIEW RETURNED	24-Feb-2021

GENERAL COMMENTS	This is a very clearly written and thorough protocol for a systematic review. There are a few really minor typos/errors: 1) please check lines 38-43 on page 9 (of 26): this sentence doesn't seem correct; 2) same page line 33-34: were instead of was? ; 3) please check line 14-15 on page 16: marker instead of maker? ; 4) please check lines 17-20 on page 16: strange sentence; 5) line 23-24 on page 16: of instead of if?
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

1. The protocol describes that studies regarding HBPT with/without management support will be included. I am not quite sure about the definition of the management support, for example, will HBPT simultaneously integrating other chronic disease management interventions (exercise training, nutritional therapy, etc.) also be eligible in this systematic review?

Response: Thanks for this comment. By management support, we meant studies that integrated other chronic disease management interventions (e.g. other healthcare workers such as nurses, pharmacists, community health workers, etc, or exercise programs, nutritional programs, etc.) to improve BP control. We have updated the information in our text to read as shown below to improve clarity:

“The intervention of interest will be use of HBPT (with or without management support - nurses, pharmacist, physician, informed self-management of medications, health aids, exercise programs, nutritional programs, etc.,) for BP assessment and monitoring.”

2. To avoid abundance, I suggest that item 1 of the inclusion criteria and item 2 of the exclusion criteria can be combined.

Response: Thanks for this comment. We agree with this suggestion and have made the change in our manuscript.

3. HBPT involves a long-term process and largely relies on the duration of intervention/follow-up that may therefore be crucial to the outcomes. Attempts to clarify the reason or add relevant references to choose 6 months as cut-off study duration in the subgroup analysis section can be informative.

Response: We agree that HBPT involves a long-term process for reporting outcomes as are many other interventions involving BP control. However, as we reviewed the literature on HBPT in the general population, we became aware that several non-CKD studies were conducted over a relatively short time i.e. within 6-months (some examples include Madsen et al. *Blood Press.* 2008;17(2):78-86. Earle et al. *Diabetes Technol Ther* 2010; 12:575–579.; Parati et al. *J Hypertens* 2009; 27:198–203.; Friedman et al. *Am J Hypertens* 1996; 9:285–292.). There were also a few conducted over longer periods (e.g. Shea et al. *J Am Med Inform Assoc* 2009; 16:446–456.). This was our reasoning for selecting 6 months as cut-off study duration as there will likely be studies in the CKD population conducted within this time.

Reviewer: 2

The protocol is very well written and easy to read. Also, the approach is well-structured using appropriate methods.

Response: Thank you.

1. Personally, I have some doubts if this protocol is of enough interest for the reader of BMJ open.

Response: We think this protocol will be of great interest to BMJ Open readers, who include a good proportion of internists and primary care practitioners involved with the management of CKD and hypertension. The protocol focuses on an important area of relevance not only to general internal medicine and of course nephrology but several other subspecialties of medicine (cardiology, endocrinology, etc.).

2. I also think the study would be more interesting if the authors would consider an individual patient data meta-analysis, i.e. contacting the authors of the papers selected to share their data.

Response: Thanks for this comment. As we are hopeful to identify sufficient studies when we carry out the study, we feel that pooled study data meta-analysis will provide us with more robust data. In-addition, we will not hesitate to contact individual study authors where this is deemed necessary during the conduct of the review and/or analysis.

3. Although, it may be true that the impact of HTMBP has not been investigated sufficiently among CKD patients. HBPT in general has been investigated widely and also systematic reviews to this have been done. This makes that, although I think the topic is definitely interesting and deserves to be investigated in a systematic review, I wonder if the study protocol is of enough interest.

Response: Thanks for this comment. As we highlighted above (comment #1), we think this protocol is relevant as it will provide guidance and details of the overall study methodology and will be of interest to several groups of BMJ audience.

Reviewer: 3

This is a very clearly written and thorough protocol for a systematic review.

Response: Thanks for this comment.

1) please check lines 38-43 on page 9 (of 26): this sentence doesn't seem correct.

Response: Thanks so much for noting this – an error on our part. We have now corrected the sentence to read as follows:

“Other outcomes (e.g. quality of life and cost) have also been evaluated. For example, in patients with kidney disease, telemonitoring has also been shown as a useful tool for improving quality of life (QoL)³² and associated with reduced healthcare resource utilization and costs in patients receiving automated peritoneal dialysis.³³”

2) same page line 33-34: were instead of was?

Response: Thank you. We have corrected this.

3) please check line 14-15 on page 16: marker instead of maker?

Response: Thank you. We have corrected this.

4) please check lines 17-20 on page 16: strange sentence.

Response: Thanks for this. We have revised the information to read as below:

“There is limited data on the use of HBPT for assessing and monitoring BP control in patients with CKD.”

5) line 23-24 on page 16: of instead of if?

Response: Thank you. We have corrected this.

VERSION 2 – REVIEW

REVIEWER	Verberk, Willem University of Maastricht, Cardiovascular Research Institute Maastricht (CARIM)
REVIEW RETURNED	19-Apr-2021
GENERAL COMMENTS	The authors responded well on the comments from the reviewers.