Author’s response to reviews

Title: Tolerability of the Oscar 2 ambulatory blood pressure monitor among research participants: a cross-sectional repeated measures study

Authors:

Anthony J Viera (anthony_viera@med.unc.edu)
Kara Lingley (kara_lingley@med.unc.edu)
Alan L Hinderliter (hinderli@med.unc.edu)

Version: 2 Date: 25 March 2011

Author’s response to reviews: see over
March 25, 2011

Dear Dr. Cassady-Cain, Dr. Marshall and Colleagues:

Thank you for the opportunity to submit a revised version of our manuscript, “Tolerability of the Oscar 2 ambulatory blood pressure monitor among research participants: a cross-sectional repeated measures study.” We greatly appreciate Dr. Ohkubo and Dr. Krakoff taking time to evaluate our manuscript and provide suggestions for improvement. We outline below our responses (in italics) to the reviewer suggestions. Changes are tracked on the document.

Sincerely,

Anthony Viera

Reviewer's report
Title: Tolerability of the Oscar 2 ambulatory blood pressure monitor among research participants: a cross-sectional repeated measures study
Version: 1 Date: 10 July 2010
Reviewer: Takayoshi Ohkubo
Reviewer's report:
Major Compulsory Revisions
1. What were the new findings of the study? Were there any other studies that examined the tolerability of ABPM using repeated ABPM? Please more clearly state the strength of this study.

   Thank you for raising this question. As we stated in the paper, “To our knowledge, this is the first study to examine the tolerability of ambulatory BP monitoring using the Oscar 2 monitor.” We have now also added “…with its specially designed Orbit cuff.” to this sentence. We also added a new paragraph:

   “Another strength of this study is its assessment of tolerability on two occasions, providing some estimate of the reproducibility of a questionnaire designed to measure people’s experience (“satisfaction”) with wearing an ambulatory BP monitor. We are aware of no other study that has done this type of evaluation. Perhaps most importantly, we analyzed the effects of tolerability on the number of measurements one can expect to obtain from studies of participants in which ambulatory BP monitoring is used. We believe this is useful information for researchers as well as clinicians who use ambulatory BP monitoring.”

Minor Essential Revisions
1. Page 2, 2nd from the last line:
   Could 8.6 % be considered as "only"?
   To me the proportion seems very high. Please add discussion on that comparing
corresponding proportion in previous studies.

We have change the word “only” to read “...and 8.6% removed it at some point during the night.” We also removed the word “only” from the Discussion section.

We added the following paragraph in the Discussion section:

“We found no studies with which to make a direct comparison about the proportion of participants who reported actually removing the monitor. Our questions about monitor removal were modified from a prior study’s questionnaire [8], and we found no other study containing similar items. In that study of pregnant women undergoing ABPM using a SpaceLabs 90207 monitor, 15% discontinued their monitoring session [8]. However, the results may not be comparable to ours due to the different populations and the slightly different questions used.”

2. Page 3, 3rd line, "p=NS": 
Describe percentages and actual p-values.

We have added these to the abstract.

Reviewer's report
Title: Tolerability of the Oscar 2 ambulatory blood pressure monitor among research participants: a cross-sectional repeated measures study
Version: 1 Date: 18 February 2011
Reviewer: Lawrence Krakoff

Reviewer's report:
The tolerability of this somewhat new ABPM device and cuff is an issue to be considered in offering to patients for either research or clinical care. This is a clearly designed and carefully executed study that offers practical advice. I have a few suggestions for consideration.
1. Background- add value for masked hypertension references Pickering (1) and AASK experience (2)

Thank you for this suggestion. We have added. (We also added a mention of value for assessing nighttime BP.)

2. Agree tolerability is important as ABPM moves into clinical assessment

Thank you.

3. Too bad about excluding pregnant women, as this is an area of exploration for ABPM.
This study was part of our study on masked hypertension (Viera AJ, Hinderliter AL, Kshirsagar AV, Fine J, Dominik R. Reproducibility of masked hypertension in adults with untreated borderline office blood pressure: comparison of ambulatory and home monitoring. Am J Hypertens. 2010 Nov;23(11):1190-7) which did not include pregnant women. We agree though that there would be value in more study of ABPM in pregnancy.

4. Was arm circumference considered for exclusion? Results noted the study.

   Good question. It was. We have added.

5. IRB approval noted. Was informed consent verbal or written- a minor point.

   Yes – we have added a sentence.

6. It’s surprising that most had arm circ <35, despite the large fraction with BMI >30.

   We had a trained RA measure arm circumference at mid-biceps. It may be related to various arm shapes / morphologies. There were also 10 people who for some reason we did not have the arm circumference data. If all 10 were ≥35 cm, the proportion would increase to 40%.

Reference List

Thank you for the references.