Author's response to reviews

Title: Is an increase in skin temperature predictive of neuropathic foot ulceration in people with diabetes? A systematic review and meta-analysis.

Authors:

Vanessa J Houghton (vanessa.houghton@gmail.com)
Virginia M Bower (virginia.bower@uwa.edu.au)
David C Chant (davidchant47@bigpond.com)

Version: 2 Date: 18 July 2013

Author's response to reviews: see over
Author’s response to the Referees

Thank you for an opportunity to submit our manuscript to your journal and for facilitating the valuable peer review process on our behalf. We have spent considerable time considering the comments of the three experienced reviewers and have modified our manuscript in response to their excellent and constructive feedback. For ease of review, we have provided a summary of our response within the body of this letter to assist the reviewers in assessing the context of the changes we have made. Please find this summary in tabulated form below.

<table>
<thead>
<tr>
<th>Reviewer comment</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Paul Tinley) - Compulsory revisions required. I believe that table one would be difficult to include into the journal article and wonder if the content is not already covered in summary within the text making the table somewhat redundant.</td>
<td>We thank the reviewer for this comment. The standardised Cochrane guidelines were followed closely in this review regarding tables and figures. We believe that such a table is necessary to set an adequate context for this review article in a clear and concise form. We will endeavour to liaise with the journal on the formatting of this table.</td>
</tr>
<tr>
<td>(Paul Tinley) - Minor essential revisions would include modifications to the figures 2, 4 and 5. These figures are essentially a table and a graph and should be shown as such with a little more information in the title to help the reader understand what the figure is trying to show.</td>
<td>We thank the reviewer for this comment. We have found our presentation of figures and tables to be an accepted method for summarising meta-analysis. We have used other review articles published within the JFAR journal as a reference and feel that the body of our review appropriately expands on these figures.</td>
</tr>
<tr>
<td>(Paul Tinley) - Some mention of thermocouple devices such as temperature systems which seem to have been ignored.</td>
<td>We certainly agree and appreciate the reviewers comment on this. However, we are unclear about what specific technologies the reviewers are referring to. We are confident that we have identified all the relevant published research relating to our topic. We did not report on anything outside the main scope of our topic as it was important to keep the focus on the purpose of this article and maintain an appropriate word limit.</td>
</tr>
<tr>
<td>(Paul Tinley) - A little more on why liquid crystals are of limited value, ie they deteriorate with time and are therefore not considered accurate?</td>
<td>We thank the reviewer for this comment. There were a number of limitations including word limit. Preparing a concise summary of the relevant temperature monitoring tools, infrared and liquid crystal, was of great importance. We feel that we have provided a brief but adequate</td>
</tr>
</tbody>
</table>
In discussion paragraph two says "can effectively prevent" I would suggest that temp assessment on its own is just a screening tool not an intervention, it would be offloading and treatment that would prevent the ulceration. so perhaps "can help to prevent"

Similarly to the limited reference to temperature systems, the discussion on Charcot was kept clear and concise to retain the focus on the main topic of the article and maintain an appropriate word count.

We appreciate this comment and agree that changing the wording is required. We have changed the wording in the body of the article to ‘contribute to preventing’.

The Charcot information is a little scan with only short mention in the conclusion. I would have preferred to see this developed more in the discussion and conclusion Future study/ consideration as this is an area were podiatrists use thermography.

We appreciate this comment and agree that changing the wording is required. We have changed the wording in the body of the article to ‘contribute to preventing’.

The review area was well defined and identifies an important area of diabetic wound management. Indeed, it was a pleasure to read being both well constructed and comprehensive. However, it would benefit from stating a start date for the search parameters as “the earliest possible date” doesn’t allow for review replication.

We appreciate this comment. The starting date has now been included in this review as 1960.

The allocation of the studies for meta analysis into two groups was helpful but the use of the term “predictive” could be misconstrued as it appears that it was indicative of ulceration in some of the studies reviewed.

We thank the reviewer for this comment. Unfortunately, we are unclear about the reviewers concerns, as we feel the term predictive appropriately describes the outcomes used in the two study design groups.

Studies within group one assessed the temperature difference between the ulcerated foot and contralateral foot (in the same patient) compared with the temperature differences between feet in patients without foot ulcers. Studies within group two measured mean foot temperature of both feet, comparing groups of patients with diabetes and no ulcers, with diabetes and ulcers and without diabetes.

For clarity for the reviewer – we are comfortable with our definition of ‘predictive’ for these two groups. Furthermore, from the reviewers comment, it seems that predictive meets our intention.

It could be noted that the source of literature within this topic area is from similar research teams, thus would this influence findings eg demographic or socio-economic factors.

We acknowledge this comment and are certainly aware of its importance. Table one clearly explains all participant and study details. It is common for meta-analyses to be conducted on literature written by the same authors. This has
Further assisted the homogenous nature of the articles included in this study and we feel that it improves the quality of this systematic review and meta-analysis. Dr Chant who is one author of the manuscript is an experienced and well published public health statistician who was engaged in this study for his skill and expertise in this field. Dr Chant undertook the meta-analysis and agreed to co-author this paper as he was confident that the statistics were robust enough to undergo peer review.

(Michelle Spruce) - The writing style is considered to be appropriate for publication but graphs may require higher resolution prior to publication.

Thank you for this comment. We await feedback from the editorial team if any modifications are required regarding the appropriateness of our study images and formatting.