Reviewer's report

Title: Comparison of foot orthoses made by podiatrists, pedorthists and orthotists regarding plantar pressure reduction.

Version: 1 Date: 28 July 2005

Reviewer: Keith Rome

Reviewer's report:

General

Reviewers Comments

1. Is the question posed by the authors new and well defined?
   · The title should include “comparison of foot orthoses made by podiatrists, pedorthists and orthotists regarding plantar pressure reduction in the Netherlands.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   · The use of leather and cork by podiatrists would only be found in the Netherlands not specific to the UK
   · Need to explain to the readers – Anglo-Saxon orthoses (page 6)
   · Need to include years of experience relating to the therapists (page 4).
   · Need to define metatarsalgia (page 4).
   · Who undertook the pressure analysis?
   · How did the authors ‘mask’ the different areas of the foot?
   · Walking convenience – the authors need to explain this variable. Was the mean score derived or the median?

3. Are the data sound and well controlled?
   · Further explanation of the concept of ‘importance of pressure reduction’. I am unclear of its relevance.
   · Why use a Wilcoxon-Signed Test – was the data nonparametric?
   · Could the authors explain the concept of variance to describe variability – there are ways to describe variability: standard deviation, standard error of the mean, root mean square.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   · The results are difficult to read and need to be summarised. The authors need to review the use of p-values – either be consistent with p < 0.05 or p = …
   · Figures are difficult to read and need further explanation and justification. For example, Figure 6 and 7 only contains information form the podiatrists for patient A and B. Why not patient C or the description of the other two professions.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   · The variability in the results is based on professional opinion/choice and experience. There is no description of the experience of the therapists which calls into question the validity of the study. Because there was only three patients and ten therapists from each profession the authors cannot generalise to all the professionals.
   · UK/USA podiatrists use Root devices – would the authors like to explain the variation from the Netherlands?
- Do the author's conduct any research onto the reliability of the pressure-system – if not then they should use previous literature to support the use of the equipment.
- Page 10 – the authors are postulating about the increase in plantar pressures in neuropathic feet and discrepancy between treatment goal and treatment effect – there is no evidence from this study to support such a claim.
- Patient C- is a sero-negative case – could a 'flare-up' cause any variability between results?
- Page 11 – large variation in orthoses construction – this is a personal choice and cannot be reported to occurring in the generalised population.
- Page 11 – assumption about the group being a fair representation – any evidence to support this statement.

6. Do the title and abstract accurately convey what has been found?
- The authors quote 'almost no relationship' – there is either a significant relationship or no significant relationship. The last sentence 'pressures management' – do the authors suggest measurements or the management/intervention?

7. Is the writing acceptable?
- Reference 24 – does not relate to casting but to measuring inversion/eversion.
- The regression analysis results needs to be explored as written in a manner that is clear and succinct to the reader.
- The authors should clearly explain how they derived 186 foot orthoses (page 9)? The authors state that 31 pairs of devices were made per patient (page 4). Why use sham foot devices (page 4)?
- Reference 36 is not peer-reviewed.

Major Compulsory Revisions
Reject because scientifically unsound

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Reject because scientifically unsound