Reviewer's report

Title: Interrater and intrarater reliability of Photoplethysmography for measuring toe blood pressure and toe-brachial index in people with Diabetes Mellitus

Version: 1 Date: 15 July 2011

Reviewer: Magnus Löndahl

Reviewer's report:

This is an important and clinical relevant study evaluating the interrater and intrarater reliability of a specific bed-side method evaluating arterial toe-blood pressure.

Major revisions

1. Background: “microvascular disease distal to the ankle….”. How do you define microvascular disease? In this perspective; TcPO2 and the study by Kalani and Brismar (Diabetes Care, 1999) ought to be discussed.

2. Results: As the authors are discussing in the paper toe pressure and brachial pressure intrarater reliability might be difficult to evaluate as measurements were performed with a week in between. As brachial pressure seems to vary a lot and as a manual blodpressure was not checked, I suggest that only TBI intrarater data are given.

3. To visualize outcome in an easier way I suggest that all individual TBI values are plotted in two diagrams showing intrarater and intrarater reliabilities, respectively.

4. Discussion: How many patients had TBI below 0.64 and 0.75 at the first measurement and how many had a different outcome in perspective of these cut-off levels at the second measurement?

Minor revisions

1. Diabetes or diabetes?

2. Table 1: Is it mean or median duration of diabetes?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
No competing interests