Reviewer's report

**Title:** Assessment of central haemodynamics from a brachial cuff - a community based feasibility study

**Version:** 2  **Date:** 7 April 2012

**Reviewer:** Alberto Avolio

**Reviewer's report:**

This investigation assesses potential clinical application of non-invasive estimation of central arterial blood pressure using the conventional brachial cuff for measurement of arterial pressure employing the oscillometric technique. The study is well conducted and the results are in general agreement with previous studies in large populations. However, as the algorithm developed to estimate aortic pressure relies on the the brachial cuff oscillometric pressure signal, it is important that the issue described below is addressed.

Minor Essential Revision.

Page 5. Last line. The description related to waveform recording at a cuff pressure equal to arterial diastolic pressure should be clarified. How can the stability of the diastolic level be ascertained? Is there any waveform distortion if the arterial diastolic pressure varies from the set cuff pressure? It is not clear if the detection algorithms can distinguish intrinsic waveform distortion if it is consistent during the recording period. Could this be related to the finding of the systematic overestimation of augmentation index?

**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:**

I declare that I have no competing interests.