Reviewer's report

Title: Noninvasive Cardiac Output and Blood Pressure Monitoring cannot replace an Invasive Monitoring System in Critically Ill Patients

Version: 1 Date: 18 May 2009

Reviewer: David G Whalley

Reviewer's report:

General:
The authors have submitted a report of an comparison in critically ill patients of a proprietary product that measures cardiac output and blood pressure noninvasively against standard invasive techniques. The question, methodology, results and discussion are well thought out and acceptable. I have just one suggestion that I believe needs addressed before the manuscript can be accepted.

Major Compulsory: none

Minor Essential Revisions:
The authors need to pay some attention to the english grammar in their report. There are numerous examples, primarily in the Discussion - all of which I cannot enumerate - but for starters: "group of critically ill requiring "; "partially vasopressor support"; "57 until 73"; "was scantily"; safely usable"; "this fact is not to mitigate." etc........

What is an "outreach team"? I think I know but the term needs to be explained.

Discretionary Revisions:
To what extent did the use of norepinephrine (NE) contribute to the wide SD and % errors for both MAP and CO? Was NE used on all patients? I realize this is speculation but might there be a place for the noninvasive technique in a selected group of ICU patients, or does its inaccuracy preclude any application in the ICU patient population?

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
'I declare that I have no competing interests'