Reviewer's report

Title: A Prospective Study To Evaluate The Accuracy Of Pulse Power Analysis To Monitor Cardiac Output In Critically Ill Patients.

Version: 2 Date: 15 July 2007

Reviewer: Mervyn Singer

Reviewer's report:

General
The manuscript is improved though I have picked up some additional points that I feel need to be addressed before the paper is, in my opinion, acceptable for publication.

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

1. Abstract:
How can the median value be 5 l/min yet the IQR be 5.1-9 L/Min?? These data also contradict the data shown in the Results section (page 7, 2nd paragraph)

2. ‘The cardiac output remains acceptable for up to 4 hrs in patients with haemodynamic instability ‘ – what evidence do you have that the patients are ‘unstable’? I note that they were (page 5) ‘deemed so by their treating clinicians’ but this is both vague and highly subjective. On the other hand (page 6) measurements at baseline, 1, 2, 4 and 8 hrs were performed only during intervals relatively free of haemodynamic change yet these were achieved in virtually all cases. On page 7 (Results) it is stated that only 6 of the 14 patients had a cardiac output change >15% from baseline – 15% does not constitute a particularly large change and 8 of the 14 had an even smaller change. Either define instability more stringently or remove it altogether.

3. Results (page 7, 2nd para): It is rather misleading to talk of ‘excellent correlation’ yet in the following sentence to highlight the large error at 1, 2, 4 and 8 hours. The correlation is only excellent due to the single outlying point of 19 l/min. The text should be corrected.

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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)

Data are plural – the repeated grammatical errors should be corrected (data is...
What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

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

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

Declaration of competing interests:
I perform consultancy work for Edwards & Deltex who make competing CO monitoring devices