Reviewer’s report

Title: Use of a blood gas analyzer and a laboratory autoanalyzer in routine practice to measure electrolytes in intensive care unit patients

Version: 3 Date: 19 May 2012

Reviewer: volkher scharnhorst

Reviewer’s report:

The manuscript has clearly benefitted from the modifications.
I have few more major suggestions:
Please include the essence of the last section of the discussion under the conclusion section of the abstract. It should read that concordance between abg and aa should be established prior to introduction of new abg systems.
Figures 2 and 4: the regression line should be calculated by deming regression instead of linear fit. Deming takes into account measurement uncertainty and the added value is that a y=x line is drawn in the figure. The y and x axis of each figure should have the same range and scale.

minor points
Abstract, results: intra-analyzer should be inter-analyzer
Materials, analyt.precision section: what is the difference between mean comparative and mean analyte level. I (and many readers) do not know. Please explain. Res
Results: for Na the mean and sd is given, for K mean and SE? It should be sd or se for both.
Discussion:
- an r2 of about 0.9 is not well-correlated.
- Should nics standard be nist standard?

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:

No interests